ILLINOIS POLLUTION CONTROL BOARD
July 23, 2009

IN THE MATTER OF:	)	
	)	
NITROGEN OXIDES EMISSIONS FROM	)	R08-19
VARIOUS SOURCE CATEGORIES:	)	(Rulemaking - Air)
AMENDMENTS TO 35 ILL. ADM. CODE	)	
PARTS 211 AND 217	)	

Proposed Rule. Second Notice.

OPINION AND ORDER OF THE BOARD (by A.S. Moore):

Today the Board adopts for second notice a proposal amending its air pollution regulations. On May 9, 2008, the Illinois Environmental Protection Agency (Agency or Illinois EPA or IEPA) filed a proposal under the general rulemaking provisions of Sections 27 and 28 of the Environmental Protection Act (Act) (415 ILCS 5/27, 28 (2008)). On both January 30, 2009, and March 23, 2009, the Agency filed motions to amend the proposal. Generally, the Agency proposes to amend Parts 211 and 217 of the Board's air pollution regulations (35 Ill. Adm. Code 211, 217) to control nitrogen oxides (NO_x) emissions from major stationary sources in the nonattainment areas and from emission units including industrial boilers, process heaters, glass melting furnaces, cement kilns, lime kilns, furnaces used in steelmaking and aluminum melting, and fossil fuel-fired stationary boilers at such sources. On April 2, 2009, the Board granted the Agency's motion for expedited review of this proposal.

On May 7, 2009, the Board adopted its first-notice opinion and order in this proceeding. *See* 33 Ill. Reg. 6896, 6921 (May 22, 2009). In that opinion and order, the Board largely adopted the Agency's proposal, including changes proposed in the two motions to amend.

In this opinion, the Board first provides the procedural history of this rulemaking before addressing preliminary issues and background on regulation of NO_x emissions. The Board then addresses the public comments received since publication of the first-notice proposal. The Board then discusses the issues raised during first notice before addressing economic reasonableness and technical feasibility and summarizing the proposal on a section-by-section basis. Finally, the order following the opinion then sets forth the proposed amendments for second notice.

PROCEDURAL HISTORY

On May 9, 2008, the Agency filed a rulemaking proposal (Prop.) under the general rulemaking provisions of Sections 27 and 28 of the Act. 415 ILCS 5/27, 28 (2008). A Statement of Reasons (Statement) and a Technical Support Document (TSD) accompanied the proposal. A motion for waiver of copy requirements also accompanied the proposal. In an order dated June 5, 2008, the Board accepted the Agency's proposal for hearing and granted the Agency's motion for waiver of copy requirements.

In a letter dated June 6, 2008, the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study of the Agency's rulemaking proposal. *See* 415 ILCS 5/27(b) (2008). DCEO has not responded to the Board's request.

In an order dated June 12, 2008, the hearing officer scheduled a first hearing to begin on October 14, 2008, in Springfield and a second hearing to begin December 9, 2008, in Chicago. The order directed participants wishing to testify at the first hearing to pre-file their testimony no later than September 2, 2008. The order also directed participants to pre-file questions based on the Agency's pre-filed testimony no later than September 16, 2008. Finally, the order directed the Agency to pre-file written answers to those pre-filed questions no later than September 30, 2008.

On August 29, 2008, the Agency pre-filed testimony by Mr. Robert Kaleel (Kaleel Pre-filed Test.), Mr. Vir Gupta (Gupta Pre-filed Test.), and James E. Staudt, Ph.D. (Staudt Pre-filed Test.).

On September 15, 2008, Midwest Generation filed questions for the Agency's witnesses (MG Questions). On September 16, 2008, ExxonMobil Oil Corporation (ExxonMobil) filed questions for the Agency's witnesses (ExxonMobil Questions). Also on September 16, 2008, the Illinois Environmental Regulatory Group (IERG) filed questions for the Agency's witnesses (IERG Questions). On September 30, 2008, the Agency filed three documents: answers to questions submitted by Midwest Generation (MG Answers); answers to questions submitted by ExxonMobil (ExxonMobil Answers); and answers to questions submitted by IERG (IERG Answers).

The first hearing took place as scheduled on October 14, 2008, in Springfield. At the first hearing, the hearing officer admitted into the record four exhibits:

> Finding of Failure to Submit State Implementation Plans Required for the 1997 8-Hour Ozone NAAQS, 73 Fed. Reg. 15416-21 (Mar. 24, 2008) (Exh. 1);
>
> [Illinois Environmental Protection] Agency Analysis of Economic and Budgetary Effects of Proposed Rulemaking (35 Ill. Adm. Code 211) (Exh. 2);
>
> [Illinois Environmental Protection] Agency Analysis of Economic and Budgetary Effects of Proposed Rulemaking (35 Ill. Adm. Code 217) (Exh. 3); and
>
> Cleaver Brooks letter dated May 19, 2006, to New Hampshire Division of Environmental Services (Exh. 4).

On October 24, 2008, the Board received the transcript of the first hearing (Tr.1).

On November 5, 2008, the Agency filed its responses to questions raised at the first hearing (PC 1).

On November 25, 2008, the Board received pre-filed testimony for the December 9, 2008, hearing from Mr. Scott Miller and Mr. Kent Wanninger on behalf of Midwest Generation, from Ms. Deirdre K. Hirner and Mr. David J. Kolaz on behalf of IERG, from Mr. Larry G. Siebenberger and Mr. Blake E. Stapper on behalf of U.S. Steel, and from Mr. David W. Dunn on behalf of ConocoPhillips. Also on November 25, 2008, the Board received pre-filed comments submitted by ArcelorMittal (ArcelorMittal Comment). In addition, on November 25, 2008, the Board received post-hearing comments relating to the October 14, 2008 hearing from Saint-Gobain Containers, Inc. (Saint-Gobain) (PC 2).

The second hearing took place as scheduled on December 9 and 10, 2008, in Chicago. Over the two days of the second hearing, the hearing officer admitted into the record fourteen exhibits:

Pre-Filed Testimony of Deirdre K. Hirner on Behalf of the Illinois Environmental Regulatory Group (Exh. 5);

Pre-Filed Testimony of David J. Kolaz on Behalf of the Illinois Environmental Regulatory Group (Exh. 6);

from Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard; Final Rule, 70 Fed. Reg. 71657 (Nov. 29, 2005) (Exh. 7);

Summary of NO_x Budget Allocations and Usage 2004-2007 (Exh. 8);

Pre-Filed Testimony of David W. Dunn on Behalf of ConocoPhillips Company (Exh. 9);

Pre-Filed Testimony of Larry G. Siebenberger on Behalf of United States Steel Corporation (Exh. 10);

Pre-Filed Testimony of Blake E. Stapper on Behalf of United States Steel Corporation (Exh. 11);

Testimony of Scott Miller of Behalf of Midwest Generation (Exh. 12);

Testimony of Kent Wanninger on Behalf of Midwest Generation (Exh. 13);

IHS-CERA Power Capital Costs Index (PCCI) (Graph Included on Page 7 of Kent Wanninger's Testimony on Behalf of Midwest Generation) (Exh. 14);

Baldwin 3 graph (Exh. 15);

Joliet 71 boiler graph (Exh. 16);

Bureau of Labor Statistics Producer Price Index. Commodities Group: Metals and metal products Item: Hot rolled bars, plates, and structural shapes (December 4, 2008) (Exh. 17); and

Bureau of Labor Statistics Producer Price Index. Commodities Group: Metals and metal products Item: Carbon scrap steel (Dec. 4, 2008) (Exh. 18).

On December 30, 2008, the Board received the transcript of December 10, 2008, the second day of the second hearing (Tr.3). On January 5, 2009, the Board received the transcript of December 9, 2008, the first day of the second hearing (Tr.2).

In an order dated December 23, 2008, the hearing officer scheduled a third hearing for February 3, 2009, in Edwardsville and directed participants wishing to testify at the third hearing to pre-file testimony no later than January 20, 2009.

On January 20, 2009, the Board received post-hearing comments from IERG (PC 3), Saint-Gobain (PC 4), and ConocoPhillips (PC 5). Also on January 20, 2009, the Board received pre-filed testimony on behalf of the Agency from Mr. Robert Kaleel (Kaleel Pre-filed Test. 2), Mr. Michael Koerber (Koerber Pre-filed Test.), and James E. Staudt, Ph.D. (Staudt Pre-filed Test. 2). Also on January 20, 2009, the Agency filed a motion to correct the transcript of the second hearing.

On January 30, 2009, the Agency filed a motion to amend its rulemaking proposal (Mot. Amend 1).

On January 30, 2009, the Board received supporting materials from U.S. Steel. (PC 6). On February 2, 2009, the Board received pre-filed testimony of Mr. Blake E. Stapper on behalf of U.S. Steel. On February 3, 2009, the Board received a public comment from Mr. James L. Kavanaugh of the Missouri Department of Natural Resources (PC 7).

The third hearing took place as scheduled on February 3, 2009, in Edwardsville. During the third hearing, the hearing officer admitted into the record seven exhibits:

Western Michigan Ozone Study: Draft Report (January 21, 2009) (Exh. 19);

Calculation of Available COG after Consumption in Reheat Furnaces (Exh. 20);

Calculation of Siebenberger Exhibit A Information — COG burned in reheat furnaces per Siebenberger December testimony (Exh. 21);

Total Boiler COG Usage from Attachment C (Exh. 22);

Calculation of Siebenberger Exhibit A Information — with 2008 COG rate, 35 day scrubber maint. (Exh. 23);

Calculation of Siebenberger Exhibit A Information — with 2008 COG rate, no COG scrubber maint. (Exh. 24); and

Pre-Filed Testimony of Blake E. Stapper on Behalf of United States Steel Corporation (Exh. 25).

On February 11, 2009, the Board received the transcript of the third hearing (Tr.4).

In an order dated February 19, 2009, the Board granted the Agency's motion to amend its rulemaking proposal and also granted the Agency's motion to correct the transcript of the second hearing.

On March 19, 2009, the Agency filed a motion for expedited review. Also on March 19, 2009, the Agency forwarded to the Board's Acting Chairman, Dr. G. Tanner Girard, a letter from the United States Environmental Protection Agency (USEPA) (PC 8). On March 20, 2009, the Board received Midwest Generation's response to the Agency's motion for expedited review. On March 23, 2009, the Board received from Agency Director Douglas P. Scott a letter regarding expedited review of the Agency's amended proposal. On March 26, 2009, the Board received IERG's response to the Agency's motion for expedited review. In an order dated April 2, 2009, the Board granted the Agency's motion for expedited review.

On March 23, 2009, the Board received post-hearing comments from Midwest Generation (PC 9), ArcelorMittal (PC 10), U.S. Steel (PC 12), IERG (PC 13), and ConocoPhillips (PC 14). Also on March 23, 2009, the Board received post-hearing comments from the Agency (PC 11), accompanied by the Agency's second motion to amend its rulemaking proposal (Mot. Amend 2).

On May 7, 2009, the Board issued its first notice opinion and order. *See* 33 Ill. Reg. 6896, 6921 (May 22, 2009). Among other action, that opinion granted the Agency's second motion to amend its rulemaking proposal.

On July 1, 2009, the Board received a comment submitted by ArcelorMittal (PC 15). On July 6, 2009, the Board received comments submitted by IERG (PC 16), the Agency (PC 17), ConocoPhillips (PC 18), and U.S. Steel (PC 19). On July 7, 2009, ArcelorMittal filed a motion for leave to file a response to the Agency's first notice comment (Mot. Leave), accompanied by its response (PC 20). On July 8, 2009 the Board received comments submitted by the U.S. Department of Energy and the Argonne National Laboratory (collectively, Argonne) (PC 21). On July 15, 2009, the Agency filed a motion for leave to file *instanter* a response to the first notice comments of U.S. Steel and ArcelorMittal (Agency Mot.), accompanied by its response to those comments (PC 22).

PRELIMINARY ISSUES

ArcelorMittal Motion for Leave to File Response

As noted immediately above, on July 7, 2009, ArcelorMittal filed a motion for leave to file a response to the Agency's first notice comment. *See* Mot. Leave, citing 35 Ill. Adm. Code 101.500, 101.502. ArcelorMittal requests that either the Board or the hearing officer allow it to file the accompanying response. Mot. Leave at 1; *see* PC 20.

In support of its motion, ArcelorMittal states that it filed a first notice comment on July 1, 2009, and that the Agency filed a first notice comment on July 6, 2009. Mot. Leave at 1. ArcelorMittal claims that the Agency's comment "raised a few issues regarding cost effectiveness and the appropriate NO_x emission limit for other sources that ArcelorMittal feels must be rebutted." *Id*.

ArcelorMittal notes that the Illinois Administrative Procedure Act (APA) provides a first notice comment period of at least 45 days and that the 45-day period ended July 6, 2009. Mot. Leave at 1, citing 5 ILCS 100/5-40(b) (2008); *see* 33 Ill. Reg. 6896, 6921 (May 22, 2009) (first notice publication). ArcelorMittal notes that, while the Board has granted the Agency's request for expedited review of this proposal, the APA does not forbid a first notice comment period longer than 45 days and the Board is not scheduled to meet until later in the month of July. Mot. Leave at 1; *see* 5 ILCS 100/5-40(b) (2008). ArcelorMittal requests that either the Board or the hearing officer grant the motion in order "to prevent material prejudice to ArcelorMittal." Mot. Leave at 1. ArcelorMittal argues that "[n]o undue hardship on any party will occur by granting this Motion." *Id*. at 2.

Section 101.500(d) of the Board's procedural rules provides in pertinent part that,

> [w]ithin 14 days after service of a motion, a party may file a response to the motion. If no response is filed, the party will be deemed to have waived objection to the granting of the motion, but the waiver of objection does not bind the Board or the hearing officer in its disposition of the motion. Unless undue delay or material prejudice would result, neither the Board nor the hearing officer will grant any motion before expiration of the 14 day response period except in deadline driven proceedings where no waiver has been filed. 35 Ill. Adm. Code 101.500(d).

The Board notes that no participant has filed a response to ArcelorMittal's motion for leave to file a response. In the absence of a response and after reviewing the substance of the motion, the Board grants the motion, accepts ArcelorMittal's response, and summarizes it below. *See infra* at 23-24.

Agency Motion for Leave to File Response

As noted above under "Procedural History," the Agency on July 15, 2009, filed a motion for leave to file *instanter* a response to the first notice comments of U.S. Steel and ArcelorMittal. *See* Agency Mot. at 1, citing 35 Ill. Adm. Code 101.500, 102.402. The Agency notes that both it and U.S. Steel filed first notice comments with the Board on July 6, 2009. Mot. Leave at 1. The Agency reports that "[c]ounsel for the Illinois EPA has discussed U.S. Steel's comments with counsel for U.S. Steel, and there is no objection to the filing of this motion." *Id*. The Agency also notes that, on July 7, 2009, ArcelorMittal file a motion for leave to respond to the Agency's first notice comments, accompanied by its response. *Id*. at 2. As noted immediately above, the Board has granted ArcelorMittal's motion and accepted its response. The Agency states that it "regrets the timing of this latest request," but it "deems it necessary to respond to U.S. Steel's

First Notice Comments and ArcelorMittal's Response to the Illinois EPA's First Notice Comments." *Id*. The Agency requests that the Board grant the motion for leave to file *instanter*.

As noted above, Section 101.500(d) of the Board's procedural rules provides in pertinent part that,

> [w]ithin 14 days after service of a motion, a party may file a response to the motion. If no response is filed, the party will be deemed to have waived objection to the granting of the motion, but the waiver of objection does not bind the Board or the hearing officer in its disposition of the motion. Unless undue delay or material prejudice would result, neither the Board nor the hearing officer will grant any motion before expiration of the 14 day response period except in deadline driven proceedings where no waiver has been filed. 35 Ill. Adm. Code 101.500(d).

The Board notes that it has granted the Agency's motion to expedite consideration of this rulemaking proposal. In granting that motion, the Board cited USEPA's implementation deadline and the risk of federal sanctions in the event that the state does not meet that deadline. In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 4 (Apr. 2, 2009). The Board thus finds that undue delay would result from allowing the 14-day response period to run to July 29, 2009, and proceeds to decide the motion. Having reviewed the substance of the motion, the Board grants the motion for leave to file *instanter*, accepts the Agency's response, and summarizes it below. *See infra* at 24-26.

BACKGROUND ON REGULATION OF NO_x EMISSIONS

NO_x is one of the primary precursors to the formation of ozone and is also a precursor to the formation of $PM_{2.5}$.[1] Statement at 2, 3.

The Agency reports that, "[o]n July 18, 1997, USEPA revised the NAAQS [National Ambient Air Quality Standard] for ozone by replacing the 1-hour standard with an 8-hour standard." Statement at 3, citing 62 Fed. Reg. 38856 (July 18, 1997). Illinois includes two areas designated as nonattainment for the 8-hour ozone standard. Statement at 3. The Chicago nonattainment area includes Cook, DuPage, Kane, Lake, McHenry, and Will Counties, Goose Lake and Aux Sable Townships in Grundy County, and Oswego Township in Kendall County. *Id*. The Metro East nonattainment area includes Jersey, Madison, Monroe, and St. Clair Counties. *Id*. at 3, 5.

The Agency also reports that, "[o]n July 18, 1997, USEPA revised the NAAQS for particulate matter to add new standards for fine particles, using $PM_{2.5}$ as the indicator, and established primary annual and 24-hour standards for $PM_{2.5}$." Statement at 4, citing 62 Fed. Reg. 38652 (July 18, 1997). The Agency states that USEPA has recently strengthened the 24-hour standard. Statement at 4, citing 71 Fed. Reg. 61144 (Oct. 17, 2006). Illinois includes two areas

[1] "$PM_{2.5}$ refers to particulate matter that is 2.5 micrometers or smaller in size." Statement at 4.

designated nonattainment for the $PM_{2.5}$ standard. Statement at 4. The Chicago nonattainment area includes Cook, DuPage, Kane, Lake, McHenry, and Will Counties, Goose Lake and Aux Sable Townships in Grundy County, and Oswego Township in Kendall County. *Id*. at 4-5. The Metro East nonattainment area includes Madison, Monroe, and St. Clair Counties and Baldwin Township in Randolph County. *Id*. at 5, citing 40 C.F.R. § 81.314.

The Agency states that Section 110 of the Clean Air Act (CAA) and other related provisions require states to submit for USEPA approval State Implementation Plans (SIP) "that provide for the attainment and maintenance of standards established by USEPA through control programs directed to sources of the pollutants involved." Statement at 2, citing 42 U.S.C. § 7410. The Agency further states that "[t]he CAA also provides for the State to address emissions sources on an area-specific basis through such requirements as reasonably available control measures ("RACM") and reasonable available control technology ("RACT")." Statement at 2, citing 42 U.S.C §§ 7502, 7511a. Specifically, the CAA requires Illinois for each nonattainment area "to demonstrate that it has adopted 'all reasonably available control measures as expeditiously as possible (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonable available control technology) and shall provide for attainment of the national primary ambient air quality standards.'" Statement at 2, 5, citing 42 U.S.C. § 7502(c)(1).

The Agency characterizes RACT as "[a] subset of RACM." Statement at 6, citing 44 Fed. Reg. 53762 (Sept. 17, 1979). The Agency states that "Section 182(b)(2) of the CAA requires states to adopt RACT rules for all areas designated nonattainment for ozone and classified as moderate or above." Statement at 6-7, citing 42 U.S.C. § 7511a(b)(2). The Agency further states that Section 182(f) of the CAA requires each state in which all or part of a moderate nonattainment area is located to adopt RACT for major NO_x sources. Statement at 7, citing 42 U.S.C. § 7511a(f). The Agency notes that "Section 302 of the CAA defines 'major stationary source' as any stationary facility or source of air pollutants that directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant." Statement at 7, citing 42 U.S.C. § 7602.

The Agency argues that these authorities "establish the requirements for Illinois to submit NO_x RACT regulations for all major stationary sources of NO_x in $PM_{2.5}$ nonattainment areas and ozone nonattainment areas classified as moderate and above." Statement at 7, citing 72 Fed. Reg. 20586 (Apr. 25, 2007); 70 Fed. Reg. 71612 (Nov. 29, 2005). The Agency further argues that, because Illinois includes nonattainment areas classified as moderate and above for the 8-hour ozone NAAQS, it was "required to submit by September 15, 2006, a SIP demonstrating that sources specified under the CAA were subject to RACT requirements." Statement at 7-8, citing 70 Fed. Reg. 71612 (Nov. 29, 2005). The Agency claims that, "[o]n March 24, 2008, USEPA made a finding that Illinois, among other states, failed to make a RACT submittal required under Part D of Title I of the CAA for its two moderate nonattainment areas." Statement at 8, citing 73 Fed. Reg. 15416 (Mar. 24, 2008). The Agency notes that "[s]uch finding starts the 18-month emission offset sanctions clock and 24-month highway funding sanctions clock under Section 179(a) and (b) of the CAA and the 24-month clock for the promulgation by USEPA of a Federal Implementation Plan under Section 110(c) of the CAA". Statement at 8, citing 42 U.S.C. §§ 7509(a) and (b), 7410(c).

In testimony for the third hearing, Mr. Kaleel stated that USEPA on December 22, 2008, designated areas as nonattainment for the 24-hour $PM_{2.5}$ standard. Kaleel Pre-filed Test. 2 at 3. He further stated that, in Illinois, USEPA has designated "the same areas designated previously as nonattainment for the annual $PM_{2.5}$ standard." *Id*. He added that "Illinois must develop an attainment plan and adopt control measures needed to attain the 24-hour $PM_{2.5}$ standard within three years of the effective date of U.S. EPA's decision, and Illinois must attain the standards within five years of the effective date." *Id*.

Mr. Kaleel also addressed the establishment of nonattainment areas for the 2008 8-hour ozone standard. He stated that the Agency's "initial proposal is for Illinois to recommend to USEPA to establish nonattainment boundaries for the 2008 standard that generally match the boundaries already established for the 1997 ozone standard." Kaleel Pre-filed Test. 2 at 3. He anticipated that USEPA will complete nonattainment designations in 2010, "initiating a new cycle of planning and regulatory development." *Id*. at 3-4. He expects that, because NO_x is a precursor to both ozone and $PM_{2.5}$, NO_x emission reductions will improve air quality. *Id*. at 4. He argues that "[t]he reductions provided by the subject NO_x RACT proposal will help to meet the new standards and should help to address any future requirements to implement RACT for the new standards." *Id*. Specifically, he claims that, "[u]nless USEPA issues new guidance regarding NO_x control technology, we expect that this RACT proposal will satisfy requirements to implement NO_x RACT under the revised NAAQS for the source categories and geographic areas to which this proposal applies." MG Answers at 1.

SUMMARY OF FIRST NOTICE COMMENTS

ArcelorMittal (PC 15)

Background

ArcelorMittal states that its facility located in Riverdale "has a roller-hearth tunnel furnace equipped with ultra-low NO_x burners (ULNBs), which processes thin cast steel slabs." PC 15 at 1. ArcelorMittal further states that "[t]he permitted NO_x emission limit for the tunnel furnace is 0.171 lb/mmBtu." *Id*. ArcelorMittal notes that the Agency originally proposed a NO_x emission limit of 0.05 lb/mmBtu for reheat furnaces (recuperative, combusting natural gas). *Id*.; *see* Prop. at 50 (proposed Section 217.144(a)(2)). ArcelorMittal also indicates that the Agency has expressed the view that "ArcelorMittal's tunnel furnace was subject to this emission limit for reheat furnaces." PC 15 at 1.

Technical Feasibility

ArcelorMittal states that, after it had participated in hearings and communicated with the Agency about this proposed rule, "the Agency revised its proposed NO_x emission limit for reheat furnaces to 0.09 lb/mmBtu." *Id*. at 2; *see* Mot. Amend 2 at 12. ArcelorMittal states that it has not reached a concurrence with the Agency on the applicability of this proposed rule or on the appropriate emissions limit. PC 15 at 2. ArcelorMittal argues that the Agency failed to justify the amended limit of 0.09 lb/mmBtu either economically or technologically and also failed to

demonstrate that it is based on RACT. PC 15 at 2. ArcelorMittal requests that the Board reconsider the amended emission limit of 0.09 lb/mmBtu "based on economic reasonableness, technical feasibility and product quality issues." *Id*.

In its post-hearing comments, the Agency stated that it had surveyed NO_x emission limits for recently-constructed furnaces similar to ArcelorMittal's. PC 11 at 21; *see* PC 15 at 3; PC 15, Exh. A (Table: Summary of NO_x Emissions from Reheat Furnaces). ArcelorMittal distinguishes furnaces cited by the Agency from its own. First, ArcelorMittal notes that the Agency's survey lists an emission limit of 0.0147 lb/mmBtu for the Beta Steel reheat furnace slab 2 in Porter County, Indiana. PC 15 at 3; PC 15, Exh. A. ArcelorMittal states that it determined that that limit "was the original permit limit based on manufacturer's estimates, which the source subsequently could not consistently meet." *Id*. at 3. ArcelorMittal states that, based on Beta Steel's operating permit, the current emission limit for its reheat furnace is 0.077 lb/mmBtu. PC 15 at 3; PC 15, Exh. B (Indiana operating permit); *see* PC 20 at 2 n.1 (correcting original reference to limit of 0.77 lb/mmBtu).

Second, ArcelorMittal states that the Nucor Steel facility in Tuscaloosa, Alabama differs from its own facility, as Nucor has an equalizing furnace operating "much differently that (sic) the tunnel furnace at Riverdale." PC 15 at 3-4. In addition, ArcelorMittal states that Nucor produces slabs five inches thick, while its own Riverdale facility produces slabs only two inches thick. *Id*. at 4; *see* ArcelorMittal Comment at 2 (Nov. 25, 2008). ArcelorMittal also states that the V&M Star facility in Mahoning County, Ohio differs from its own facility, as V&M Star has a billet furnace operating "much differently" than a tunnel furnace. PC 15 at 3-4.

Third, ArcelorMittal states that two of the facilities summarized by the Agency, New Steel International in Haverhill, Ohio and Minnesota Steel Industries, LLC in Itasca County, Minnesota "have not been constructed to date." PC 15 at 4; *see* PC 15, Exh. A. Finally, ArcelorMittal argues that, although the Severstal Columbus facility in Columbus, Mississippi "is similar to the Riverdale facility," it has not yet been issued a final permit. *Id*. at 4. Also, ArcelorMittal notes that the Severstal Columbus facility includes two tunnel furnaces, a factor that may influence the emission limit. *Id*. ArcelorMittal argues that none of these three facilities has demonstrated achievement of the emission limits cited by the Agency. *Id*.; *see id*., Exh A. ArcelorMittal concludes that the Agency's "reliance on outdated, erroneous, or never-applied-in-practice emission limits for 'similar sources'" casts doubt on the feasibility and appropriateness of the proposed limit of 0.09 lb/mmBtu. *Id*.

Economic Reasonableness

Addressing the issue of economic reasonableness, ArcelorMittal notes that the Agency had established costs in the range of $2,500 to $3,000 per ton of emissions reduced. PC 15 at 4, 5, citing Tr.1 at 165-66, 173-74, Tr.4 at 75. ArcelorMittal further notes that the Agency's TSD characterized as typical costs of $1,000 per ton reduced. PC 15 at 4, 5, citing TSD at 99. Finally, ArcelorMittal notes that USEPA's implementation of the 8-hour ozone implementation rule considered costs of less than $2,000 per ton reduced as reasonable for the purposes of RACT. PC 15 at 4, 5, citing 70 Fed. Reg. 71652, 71654 (Nov. 29, 2005). ArcelorMittal states that it prepared its own economic analysis in order to determine the cost effectiveness based on

"next-generation" ULNBs now available. PC 15 at 5. That analysis determined a cost effectiveness ranging from $22,895 to $39,472 per ton of NO_x emissions reduced. *Id*.; *see* PC 10 at 6. ArcelorMittal emphasizes that these burner changes guaranteed emissions of 0.068 lb/mmBtu and 0.054 lb/mmBtu. PC 15 at 5; *see* PC 10, Exh. A. While ArcelorMittal acknowledges that these guarantees are lower than the Agency's proposed emission limit, it argues that "this does not change the analysis that ArcelorMittal would have to install one of the two next-generation burners to meet the proposed revised limit." PC 15 at 5. Furthermore, ArcelorMittal argues that these cost estimates "did not include yield cost impacts and the associated cost of production downtime to convert the furnace" and also assumed that the converted furnace could continue to meet product quality specifications. *Id*.

Operational Issues

ArcelorMittal expresses concern with the effect of changing burners on the operation of the tunnel furnace and on slab quality. PC 15 at 5. ArcelorMittal argues that such a change would involve the modification or replacement of numerous elements of the furnace. *Id*. at 5-6. Furthermore, because its steel-making process is continuous and because of the lack of redundancy in its operation, ArcelorMittal states that "the tunnel furnace must operate optimally at all times." *Id*. at 6. ArcelorMittal suggests that changing burners may jeopardize the continuous operation and may undermine its investment in developing unique products. *See id*.

Summary

ArcelorMittal argues that that, because of operational and functional differences, its tunnel furnace cannot be appropriately compared to other reheat furnaces. PC 15 at 6. ArcelorMittal further argues that the Agency's summary of emissions from other reheat furnaces does not provide support for the Agency's proposed emission limit. *Id*. ArcelorMittal specifically requests that the Board "allow a source to be exempt from the proposed NO_x emission limits upon an adequate demonstration that additional NO_x controls would be economically unreasonable." *Id*. at 6-7. ArcelorMittal believes that it has made such a demonstration "and requests utilization of the emission limit currently applicable and permitted for the tunnel furnace" at its Riverdale facility. *Id*. at 7.

Agency (PC 17)

The Agency states that its first notice comments address two matters: proposing corrections and clarifications to the first notice publication of the proposed rules, and responding to the first notice comments filed by ArcelorMittal. PC 17 at 1; *see generally* PC 15. The Board separately summarizes the Agency's comments on those two matters in the following subsections.

Corrections and Clarifications

The Agency first proposes to amend the definition of "industrial boiler" at proposed Section 211.3100 "by striking the reference to 'cogeneration units.'" PC 17 at 1-2, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill.

Adm. Code Parts 211 and 217, R08-19, slip op. at 26, 71 (May 7, 2009). Second, the Agency proposes in Section 217.104 to update three incorporations by reference at subsections (l), (o), and (p). PC 17 at 2. The Agency also seeks in proposed subsections (q) and (r) to incorporate by reference additional materials. *Id*. The Agency attached to its comments a copy of the second set of materials, "40 C.F.R. 60, Appendix B, Performance Specification 16, 74 Fed. Reg. 12575 (Mar. 25, 2009)." PC 17 at 2. Third, the Agency also seeks to "[a]mend the heading of Subpart D of Part 217 by deleting the reference to 'Industrial Boilers; and adding "NO_x General Requirements.'" *Id*.

Fourth, the Agency proposes to clarify Section 217.154, which addresses performance testing, by amending "subsections (a) and (b) to add references to 'emissions limitations under' an applicable Subpart and to add the exclusion for a 'predictive emission monitoring system, or combustion tuning.'" PC 17 at 2-3. Fifth, in subsections (a) and (g) of Section 217.158, the Agency seeks to correct a cross-reference to Section 217.150(a)(1). *Id*. at 3. Sixth, in Section 217.158(a)(2), addressing units that may not be included in an emissions averaging plan, the Agency proposes to amend subsection (C) with additional language regarding enforceable orders. *Id*.

Seventh, in Section 217.158 addressing emissions averaging plans, the Agency proposes language for a new subsection (j). PC 17 at 3. Eighth, in Section 217.160, which addresses applicability to industrial boilers, the Agency proposed to amend subsection (b) "by striking the references to 'cogeneration units' and adding reference to boilers that 'meet the applicability criteria under Subpart M of Part 217.'" *Id*. at 4, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 45-46 (May 7, 2009). Ninth, in Section 217.164 addressing emissions limitations for industrial boilers, that Agency proposes to amend the first paragraph with specific language. PC 17 at 4.

Tenth, at Section 217.164(e), which provides an equation with which to determinate the NO_x emissions limitation for an industrial boiler combusting a combination of natural gas, coke oven gas, and blast furnace gas, the Agency proposes to amend the denominator in the equation. PC 17 at 4, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 98 (May 7, 2009); *see also* PC 19 at 6 (U.S. Steel comment). Eleventh, at Section 217.184 addressing emissions limitations for process heaters, the Agency proposes to amend the first paragraph with specific language. PC 17 at 4. Twelfth, at Section 217.204 addressing emissions limitations for glass melting furnaces, the Agency proposes to amend subsection (b) "due to the special characteristics of glass melting and further discussions with Saint-Gobain." *Id*. at 4-5.

Thirteenth, in Section 217.244 addressing iron and steel and aluminum manufacturing, the Agency proposes to amend subsection (b) "by correcting emissions limitations" with specific language. PC 17 at 5, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 105 (May 7, 2009). Fourteenth, in Section 217.340 addressing applicability to electrical generating units, the Agency proposes specific language to add a "reference to any 'fossil' fuel-fired stationary boiler serving 'at any time' a generator." PC 17 at 5, citing In the Matter of: Nitrogen Oxides

Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 55-56 (May 7, 2009). Fifteenth, in Section 217.342, addressing exemptions for electrical generating units, the Agency proposed to amend subsection (b) in light of a separate Board rulemaking docket. PC 17 at 5; citing Amendments to 35 Ill. Adm. Code 225: Control of Emissions from Large Combustion Sources (Mercury Monitoring), R09-10 (June 18, 2009) (final adoption). Finally, in Appendix H to Part 217, which provides compliance dates for emission units at petroleum refineries, the Agency proposes corrections. PC 17 at 6.

Response to ArcelorMittal

The Agency states that ArcelorMittal's first notice comments claim that the Agency failed to justify its proposed revised emissions limitation and to demonstrate that it was based upon RACT. PC 17 at 7, citing PC 15. The Agency counters that its TSD "provides detailed performance and cost information that demonstrates that the proposed emissions limitations contained in the rulemaking proposal are feasible technologically and economically." PC 17 at 7, citing TSD. The Agency claims that "the NO_x control technologies identified for reheat, annealing and galvanizing furnaces at iron and steel plant are reasonably available, technically feasible, and cost effective, even recognizing the tunnel design on ArcelorMittal's reheat furnace." PC 17 at 7; *see* TSD at 92-101 (Reheat, Annealing and Galvanizing Furnaces at Iron/Steel Plants).

The Agency indicates that ArcelorMittal has reviewed the summary of NO_x emissions limitations on which the Agency based its motion to amend the limitation for recuperative reheat furnaces combusting natural gas. PC 17 at 7. The Agency seeks to counter ArcelorMittal's "attempts to distinguish itself from the sources surveyed." *See id*. The Agency notes ArcelorMittal's claim that "the NO_x emissions limitation for Beta Steel Corporation's natural gas-fired reheat furnace slab 2 of 0.0147 lb/mmBtu was the original permit limit based on the manufacturer's estimates, whereas the current permit limit is 0.77 lb/mmBtu." *Id*., citing PC 15 at 3. The Agency argues that "[t]he permit limit that ArcelorMittal cites to is actually 0.077 lb/mmBtu, which is more stringent that the emissions limitation proposed by the Illinois EPA." PC 17 at 7.

The Agency also notes ArcelorMittal's claim that neither the Nucor Steel facility in Tuscaloosa, Alabama, nor the V&M Star facility in Mahoning County, Ohio, is similar to its own facility. PC 17 at 7-8. The Agency further notes ArcelorMittal's claim that neither the New Steel International facility in Haverhill, Ohio, nor the Minnesota Steel Industries LLC facility in Itasca County, Minnesota, has been constructed. *Id*. at 8. The Agency argues that "[e]missions limitations set forth in construction permits are enforceable limits, and the actions of these states to require such emission limits support the Illinois EPA's proposal as technologically feasible for this type of reheat furnace." *Id*. at 8.

The Agency also addresses ArcelorMittal's economic analysis and its "estimated cost effectiveness for burner changes based upon the next-generation ultra low NO_x burners currently available." PC 17 at 8, citing PC 10, Exh. A (filed March 23, 2009). The Agency expresses the opinion that "the economic analysis provided by ArcelorMittal is flawed and should not be relied upon as evidence that the proposed emission limits are beyond RACT from an economic

perspective." PC 17 at 8. The Agency argues that ArcelorMittal relies on Series 1430 burners designed in the 1980s that do not constitute "advanced NO_x control technology." *Id*.

The Agency notes that ArcelorMittal's estimated cost effectiveness is $22,985 per ton of NO_x removed under one scenario and $39,472 under another. *Id*., *see* PC 10, Exh. A. Noting that ArcelorMittal's scenarios are based upon a five-year equipment life, the Agency argues that "the expected equipment life is much greater than five years, as the existing burners in ArcelorMittal's furnace are about 20 years old." PC 17 at 8 (proposing 15-20 years expected life). The Agency argues that, "[b]y using unreasonably low equipment life in the economic analysis, ArcelorMittal has overstated the annualized costs of installing and maintaining the controls needed to comply with the Illinois EPA's proposal." *Id*. The Agency further argues that ArcelorMittal's estimates rely on an interest rate of ten percent and a contingency of 20 percent, both of which it characterizes as "high." *Id*. The Agency claims that these high estimates also overstate the costs of complying with its proposal. *Id*. at 8-9. On these grounds, the Agency argues that "ArcelorMittal's economic analysis should not be relied upon as evidence that the proposed emission limits are beyond RACT." *Id*. at 9.

The Agency also notes ArcelorMittal's request that the Board propose for second notice language that would "allow a source to be exempt from the proposed NO_x emissions limitations upon an adequate demonstration that additional NO_x controls would be economically unreasonable." PC 17 at 9. The Agency argues that its proposal does not include the case-by-case RACT determinations that ArcelorMittal apparently seeks. *Id*. The Agency states that it "opposes the inclusion of such options in this proposal." *Id*. The Agency notes that "[t]he Board's regulations include mechanisms for regulatory relief under specific circumstances" and "acknowledges that sources may initiate proceedings for such relief." *Id*.

U.S. Steel (PC 19)

U.S. Steel states that the proposed rulemaking would affect boilers, slab reheat furnaces, and galvanizing lines at its Granite City Works (GCW). PC 19 at 1, citing Exh. 10 at 5 (pre-filed testimony of Mr. Larry G. Siebenberger). U.S. Steel reports that, after participating in the hearings and a series of discussions with the Agency, it reached agreement with the Agency on determining NO_x emission limits for Boilers 11 and 12 and slab furnaces 1 through 4. PC 19 at 2-3. Accordingly, U.S. Steel states that it "supported the Agency's proposed amendments to the rule as described in the Agency's Second Motion to Amend Rulemaking Proposal and Post-Hearing Comments filed with the Board on March 23, 2009." *Id*. at 3; *see generally* Mot. Amend 2. Nonetheless, U.S. Steel comments that it wishes to clarify the use of desulfurized coke oven gas ("COG") and "reiterate the need for revision to the proposed emission averaging provisions to cover time periods when the desulfurization unit is shutdown due to unplanned outages or upsets." PC 19 at 3. U.S. Steel further comments that it proposes to amend the proposed Section 217.157 so it is consistent with the construction permit for its cogeneration boiler. *Id*.

Desulfurization Unit

U.S. Steel notes that, under the proposed subsection 217.158(i), "calculations for determining NO_x limits during the averaging period will not include periods when the COG desulfurization unit is shut down for maintenance so long as certain conditions are met." PC 19 at 3; *see* Mot. Amend 2 at 9. These conditions include advance notice of shutdown and a limit on the number of shutdown days. PC 19 at 3; Mot. Amend 2 at 9. U.S. Steel states that, while this proposed language works very well for planned maintenance, it does not adequately address brief unplanned outages or upsets of the COG desulfurization unit. PC 19 at 3. U.S. Steel restates its request that "the Board include a revision to the averaging provision to accommodate such brief outages and upsets, as well as startups and shutdowns, of the COG desulfurization unit." *Id*. at 3-4; *see* PC 12 at 3 (post-hearing comment). Because the unit will not operate during those periods, U.S. Steel argues that, like planned maintenance shutdowns, they should not be included in averaging calculations. PC 19 at 4.

U.S. Steel again stresses that it has not completed construction of its COG desulfurization unit. PC 19 at 4. U.S. Steel also stresses that "the proposed emission limitations are based on desulfurized COG having an *estimated* concentration of hydrogen cyanide or HCN of 130 ppm or less." *Id*. (emphasis in original). U.S. Steel thus states that "[t]he limitations associated with the use of desulfurized COG will have to be revisited once construction of the COG desulfurization unit is complete, if the actual concentration of HCN is greater than 130 ppm." *Id*. U.S. Steel expresses the understanding that a change in the rules may be necessary after it completes construction of the COG desulfurization unit. *Id*.

Emissions Monitoring

U.S Steel states that proposed Section 217.157(a)(1) "requires that owners or operators of industrial boilers that are greater than 250 mmBtu/hr install and operate a continuous emissions monitoring system ("CEMS") to measure NO_x emission in accordance with 40 C.F.R. Part 75." PC 19 at 4; *see* Prop. at 32. U.S. Steel further states that it "is constructing a blast furnace gas cogeneration boiler with a heat input capacity of 505 mmBtu/hr." PC 19 at 4; *see* PC 19, Att. A at 10 (construction permit § 3.1.2). U.S. Steel argues that, if Section 217.157(a)(1) is adopted as proposed, its cogeneration boiler will be subject to the CEMS requirement. PC 19 at 4.

U.S. Steel claims, however, that this requirement conflicts with the construction permit issued by the Agency. PC 19 at 4; *see id.*, Att. A. Specifically, U.S. Steel states that condition 3.1.8-1(a) of that permit provides that

> the Permittee shall install, calibrate, operate, and maintain NO_x and CO continuous monitoring system(s) on the affected unit within one year after the initial emission testing required by this permit unless this testing or further testing conducted by the Permittee demonstrates that the unit normally complies by a margin of at least 5 percent with the NO_x and CO emission limit in this permit or the Illinois EPA approves further time for the Permittee to achieve this level of performance. *Id*. at 4-5, citing *id*., Att. A at 15.

U.S. Steel argues that the Board should amend proposed Section 217.157(a) to exempt the cogeneration boiler from the requirements of that section "so long as U.S. Steel complies with

the terms of the construction permit issued for such boiler." *Id*. at 5. Specifically, U.S. Steel proposed that the Board add the following language to the proposed Section 217.157(a):

> [t]he owner or operator of an industrial boiler combusting blast furnace gas subject to Subpart E of this Part with a rated heat input capacity greater than 500 mmBtu/hr located at a source that manufactures iron or steel must install, calibrate, operate, and maintain continuous monitoring systems on the emission unit within one year after the initial emission testing required by the state construction permit issued by the Agency for the emission unit, unless this testing or further testing conducted by the owner or operator of the emission unit demonstrates that the emission unit normally complies by a margin of at least 5 percent with the NO_x emission limit in the state construction permit issued by the Agency for the emission unit or the Agency approves further time for the owner or operator to achieve this level of performance. PC 19 at 5.

U.S. Steel also argues that, if the Board adopts this additional language, the Board should also include a cross-reference to it in the proposed Section 217.157(a)(1). *Id*. at 5-6.

ConocoPhillips (PC 18)

ConocoPhillips states that the proposed rule would establish NO_x RACT limits applicable to sources "including many of the boilers and process heaters" at its Wood River Refinery. PC 18 at 1. ConocoPhillips refers to its post-hearing comments, in which it described "two remaining concerns with the Agency's proposed rule." *Id*., citing PC 14 at 2-3.

ConocoPhillips states that it has continued to work with the Agency to "resolve several issues related to maintenance turnarounds for NO_x pollution control equipment and the inclusion of boilers and process heaters in emission averaging plans." PC 18 at 2. ConocoPhillips further states that it has "reached agreement with the Agency on these issues." *Id*. at 2-3. Consequently, "ConocoPhillips supports the Agency's proposed amendments to the rule as described in the Agency's First Notice Comments." *Id*. at 3; *see* PC 17 at 3 (proposing correction and clarification of Section 217.158).

IERG (PC 16)

IERG states that, while the rulemaking process has addressed many of its questions and concerns, it wishes to address a few remaining matters. PC 16 at 1-3, citing PC 13 at 3-8 (IERG post-hearing comment). In addition, IERG states that it seeks "clarification of certain provisions based on discussions held with its Members following issuance of the First Notice Opinion and Order." PC 16 at 3. The Board addresses these issues in the subsections below.

Emissions Limits

IERG concurs with the Board's opinion that the Agency has explained in detail how the twice-amended rulemaking proposal is RACT for NO_x. PC 16 at 3, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code

Parts 211 and 217, R08-19, slip op. at 20 (May 7, 2009). IERG notes the Agency's indication that "it intends the NO_x RACT rule to 'provide a floor,' *i.e.*, a minimum emission limit, that a new unit in the nonattainment areas can be expected to be required to meet." PC 16 at 4, citing PC 11 at 19-20. IERG also notes that the Board has stated that the proposed standards may provide a "benchmark for future emission sources that may be located in the nonattainment areas." PC 16 at 4, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 19 (May 7, 2009).

IERG acknowledges that benchmarks have value but expresses the concern that, if a benchmark becomes a RACT 'floor,' it may complicate permitting for new sources. PC 16 at 4. IERG generally agrees with the Agency that "new source permitting should, in theory, result in more strict requirements than a RACT rule." *Id*., citing PC 11 at 20. Nonetheless, IERG argues that a site-specific analysis to determine the level of NO_x control technology constituting BACT or LAER for a new source could yield an emissions limitation less stringent than a RACT 'floor.' PC 16 at 4. Expressing uncertainty regarding the Agency's application of such a "floor," IERG states that it "raises this issue so that the Board may be aware of the likelihood that some sources may require the Board's consideration of site-specific relief at a future date." *Id*.

Compliance Date

IERG argues that a compliance date of January 1, 2014, would provide a greater "opportunity for planning and financing any necessary modifications to facilities." PC 16 at 4. Nonetheless, "IERG acknowledges the validity of the Agency's arguments for adoption of the 2012 [compliance] date, particularly in regard to the impact these rules are intended to have on the newest ozone standard and the $PM_{2.5}$ daily standard." *Id*. at 4-5. On this issue, IERG expresses its appreciation for "the Agency's stated willingness to work with impacted facilities to achieve compliance in an appropriate and timely manner." *Id*. at 5.

Averaging Provisions

IERG expresses substantial agreement with the Board's revision of Section 217.158(a)(1)(C), addressed by both IERG and the Agency, regarding replacement units in emissions averaging plans. PC 16 at 5, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 41-42, 92 (May 7, 2009). To improve the clarity of that subsection, IERG proposes in the fifth line to add a comma after "capacity" as follows:

> C) Units that commence operation after January 1, 2002, if the unit replaces a unit that commenced operation on or before January 1, 2002, or it replaces a unit that replaced a unit that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose and have substantially equivalent or less process capacity, or be permitted for less NO_x emissions on an annual basis than the actual NO_x emissions of the unit or units that are replaced. Within 90 days after permanently

> shutting down a unit that is replaced, the owner or operator of such unit must submit a written request to withdraw or amend the applicable permit to reflect that the unit is no longer in service before the replacement unit may be included in an emissions averaging plan. PC 16 at 5, citing 33 Ill. Reg. 6955 (May 22, 2009); *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 92 (May 7, 2009).

In addition, IERG notes that the first notice version of subsection 217.158(d), addressing updates to emissions averaging plans, provides that,

> 1) If a unit that is listed in an emission averaging plan is taken out of service, the owner or operator must submit to the Agency, within 30 days of such occurrence, an updated emissions averaging plan; or
>
> 2) If a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342, of this Part, as applicable, no longer qualifies for an exemption, the owner or operator may amend its existing averaging plan to include such unit within 30 days after the unit no longer qualifies for the exemption. PC 16 at 6, citing 33 Ill. Reg. 6956; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 43, 93 (May 7, 2009).

IERG argues that, in the absence of a specific definition, "taking a unit out of service for a brief period of time for routine maintenance and repair could require modifying an emissions averaging plan." PC 16 at 6. IERG further argues that emissions averaging equations account for time during which a unit is not operating or is out of service, "whether for routine maintenance or repair, or due to operational requirements." *Id*. IERG also argues that the computation accounts for a unit that is "permanently shut down." *Id*. Accordingly, IERG suggests that the Board delete Section 217.158(d)(1) as "unnecessary." *Id*.

In the event that the Board regards the subsection as necessary for recordkeeping, IERG proposes alternative language under which "the requirement to update an emission averaging plan would apply only to units that are 'permanently shut down:'

> 1) If a unit that is listed in an emissions averaging plan is permanently shut down~~taken out of service~~, the owner or operator must submit to the Agency, within ~~3~~90 days of such occurrence, an updated emissions averaging plan; or. PC 16 at 6.

Regarding Section 217.158(d)(2), IERG states that the provision "allows units that were previously exempt to be included in an averaging plan by amending the plan 'within 30 days after the unit no longer qualifies for the exemption.'" PC 16 at 7. IERG argues that this language does not clearly indicate whether, if an owner or operator does not update the averaging

plan within 30 days, the owner or operator can include the unit in the plan after that 30-day period has elapsed. *Id*. IERG further argues that "[o]nce a unit is no longer exempt, it is subject to all of the applicable provisions of the proposed rule, and there should be no need for a time limit for including such units in an emission averaging plan." *Id.*

Next, IERG claims that, consistent with the Agency's intent, "this language is to describe exceptions to the once-per-year limit to amending emission averaging plans contained in the proposed [Section] 217.158(c)." PC 16 at 7. Accordingly, IERG proposed that the board amend Section 217.158(d)(2) as follows:

> 2) If a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342, of this Part, as applicable, no longer qualifies for an exemption, the owner or operator may amend its existing averaging plan at any time to include such unit ~~within 30 days after the unit no longer qualifies for the exemption~~. PC 16 at 7.

IERG states that the proposed Section 217.158(h) "would allow exclusion from the 'calculation demonstrating compliance' certain time periods when a unit is shut down for a maintenance turnaround." PC 16 at 7; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 44, 96 (May 7, 2009). IERG further states that, "[i]n order to rely on the proposed exemption, an owner/operator would have to notify the Agency in writing in advance, *and* the shut down must not exceed 45 days per ozone season or calendar year." PC 16 at 7 (emphasis in original). IERG requests that the Board clarify this provision by revising it so that it "does not restrict that a shut down of a covered unit during an actual maintenance turnaround be limited to 45 days, but that, instead, the exemption from the calculation demonstrating compliance would be limited to 45 days." *Id*. at 7-8. IERG stresses that, particularly at a large facility such as a petroleum refinery, a planned maintenance turnaround may extend beyond 45 days because of "delays associated with weather, manpower and equipment availability, as well as unplanned or unforeseen mechanical setbacks." *Id*. at 8. Accordingly, IERG proposes to amend Section 217.158(h) as follows:

> h) The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the emission unit for the maintenance turnaround and the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround. This provision is in no way intended to restrict to 45 days or less the shutdown

of a covered unit during a maintenance turnaround. *Id*., citing 33 Ill. Reg. 6959.

Types of Units Not in Nonattainment Areas

IERG states that it has repeatedly raised the concern that the Agency's proposal "establishes emissions limits for units that are not present in the nonattainment areas subject to this proposal". PC 16 at 8, citing PC 13 at 8; IERG Questions at 4; Tr.1 at 57-64. IERG continues to consider these proposed limits as inappropriate, arguing that "[t]he owners and operators of units potentially impacted under this proposal have not had the opportunity to participate in this rulemaking." PC 16 at 9. Specifically, IERG expresses the concern that, "[c]onsidering unit-specific factors, a detailed case-by-case analysis for a particular unit could show that, for that unit, the proposed emission limit does not reflect the application of 'reasonably available control technology.'" *Id.* IERG also expresses the concern that that proposed limits may serve as a "'RACT floor' for those units located outside of the nonattainment areas, whose owners and operators have not had opportunity for unit-specific discussions with Illinois IEPA during the course of this proceeding." *Id*. at 9-10. IERG expresses its "strong position that the emissions limits contained in the proposal should not be interpreted to represent what is 'reasonably available control technology.'" *Id*. at 10. IERG argues that "[s]uch implications may not have been addressed in this proceeding, and may call for establishing different emissions limits." *Id*.

Reporting Requirements

Proposed Section 217.156(j) provides in part that "[t]he owner or operator of an emission unit subject to the requirements of this Subpart and demonstrating compliance through the use of a continuous emissions monitoring system must submit to the Agency a report within 30 days after the end of each calendar quarter." In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 36, 86 (May 7, 2009). IERG notes that proposed subsections (j)(1) and (j)(2) require that those reports include two specified items:

1) Information indentifying and explaining the times and dates when continuous emissions monitoring for NO_x was not in operation, other than for purposes of calibrating or performing quality assurance or quality control activities for the monitoring equipment; and

2) An excess emissions and monitoring systems performance report in accordance with the requirements of 40 C.F.R. 60.7(c) and (d) and 60.13, or 40 C.F.R. 75, or an alternate procedure approved by the Agency and USEPA. PC 16 at 10-11, citing 33 Ill. Reg. 6948 (May 22, 2009); *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 36, 86 (May 7, 2009).

IERG proposes to delete subsection (j)(1) and to amend subsection (j)(2) as follows:

2) An excess emissions and monitoring systems performance report and/or summary report in accordance with the requirements of 40 C.F.R. 60.7(c) and (d) ~~and 60.13~~, or 40 C.F.R. 75.73(f), or an alternate procedure approved by the Agency and USEPA. PC 16 at 11.

IERG argues that the provisions of the Code of Federal Regulations (CFR) cited in proposed subsection (j)(2) embody "[t]he fundamental requirements of subsection (j)(1)." *Id*. IERG argues that "[t]hose CFR references provide, among other things, the criteria and reporting detail for reporting continuous emissions monitoring down time, which are not included in subsection (j)(1)." *Id*. IERG claims that striking subsection (j)(1) "would avoid the potential for confusion resulting from the CFR reference included in [subsection] (j)(2)." *Id*.

IERG cites clarity and correctness in proposing to revise subsection (j)(2). PC 16 at 11. First, IERG argues that, "[t]he reference to 40 C.F.R. 60.13 pertains to Monitoring Requirements, and not recordkeeping and reporting, and thus should be excluded." *Id*. Second, IERG states that 40 C.F.R. 60.7(c) and (d) do address the report that is the subject of subsection (j)(2). *Id*. Third, IERG claims that "40 C.F.R. 75.73(f) refers specifically to the quarterly reporting requirements within the recordkeeping and reporting provisions of 40 C.F.R. 75.73, which is the topic of proposed Section 217.156(j)." *Id*. IERG argues that "[t]he general requirements for continuous emissions monitoring pursuant to 40 C.F.R. Part 75 are already referenced in the proposed rule in Section 217.157 (Testing and Monitoring). *Id.*; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 36-40, 86-91 (May 7, 2009) (proposed Section 217.157).

Corrections

IERG states that a comparison of the proposed amendments in Board's first notice order and those published in the *Illinois Register* shows differences between those two versions. PC 16 at 12. IERG lists those that it believes may be substantive in nature. *Id*. The Board below summarizes particular corrections proposed by IERG.

IERG notes that, although the Board's table of contents for Part 217 amends the title of Section 217.141, the *Illinois Register* does not reflect that change in the table of contents, although it reflects the amended title elsewhere. PC 16 at 12; *compare* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 72 (May 7, 2009) *and* 33 Ill. Reg. 6931, 6939 (May 22, 2009). IERG also notes that the Board's Section 217.141(c) contains specific language that does not appear in the *Illinois Register*. PC 16 at 12; *compare* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 79-80 (May 7, 2009) *and* 33 Ill. Reg. 6940. Also, IERG states that "Section 217.141(d)(1) differs in the two versions." Specifically, IERG notes that the Board in that subsection changes "sources" to "units," but the *Illinois Register* does not. PC 16 at 13; *compare* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories:

Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 80 (May 7, 2009) *and* 33 Ill. Reg. at 6941.

IERG states that the *Illinois Register* has titled Subpart D as "Industrial Boilers" and suggests that it should instead be titled "NO_x General Requirements." PC 16 at 13, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 80 (May 7, 2009); 33 Ill. Reg. 6941. IERG also states that Section 217.154(d) addressing performance testing also differs between the two versions. PC 16 at 13. IERG argues that this difference may generate some confusion about whether the 30-day and five-day notice of performance testing must both be in writing. *Id*.

IERG claims that, in Section 217.164(e), the equation for calculating the NO_x emissions limitation for an industrial boiler combusting a combination of natural gas, coke oven gas, and blast furnace gas, the *Illinois Register* versions "is missing the subscript 'BFG' and closing parenthesis." PC 16 at 13, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 98 (May 7, 2009); 33 Ill. Reg. 6962; *see* PC 17 at 4 (Agency comment). IERG also notes that, in Section 217.244(b) addressing emissions limitations for iron and steel and aluminum manufacturing, the two versions provide different limitations. PC 16 at 13-14, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 105 (May 7, 2009); 33 Ill. Reg. 6970. Finally, IERG notes that the two versions Appendix H, providing compliance dates for certain emissions units at petroleum refineries, differ in specific aspects. PC 16 at 14, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 106-07 (May 7, 2009); 33 Ill. Reg. 6972-73.

Summary

Noting the Agency's motion to expedite consideration of its proposal, IERG expresses support for adopting amendments on a schedule that avoids the risk of federal sanctions. PC 11 at 14. IERG suggests that that schedule allows the Board to give due consideration to the issues raised in its comments. *See id*. IERG states that, beyond those issues, it "can offer its support for the amendments as proposed at first-notice." *Id*.

Department of Energy/Argonne National Laboratory (PC 21)

Argonne states that it has "identified a number of inconsistencies with respect to industrial boilers (Subpart E) with a rated heat input capacity of less than or equal to 100 mmBtu/hr." PC 21 at 1. Argonne notes that these boilers are required to perform combustion tuning instead of meeting a numeric NO_x emission limit. *Id*.; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 98-99 (May 7, 2009) (proposed Section 217.166). Argonne states that it has identified inconsistencies pertaining to proposed requirements for performance testing, CEMS, and predictive emission monitoring systems (PEMS). PC 21 at 1.

Specifically, Argonne notes that the proposed Section 217.154(a) "requires performance testing for all industrial boilers regardless of size, unless they employ CEMS." PC 21; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 82 (May 7, 2009) (proposed Section 217.154). Argonne states that, "[f]or boilers less than or equal to 100 mmBtu/hr rated heat input demonstrating compliance through an emissions averaging plan and not using CEMS, Section 217.157(a)(4) requires performance testing, but that section does not address boilers less than or equal to 100 mmBtu/hr rated heat input where emissions averaging is not used." PC 21 at 1; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 87-88 (May 7, 2009).

Argonne continues by stating that "Section 217.157(a)(5) indicates that boilers less than or equal to 100 mmBtu/hr rated heat input may use CEMS in place of emissions averaging under Section 217.157(a)(4), but since there is no numeric NO_x limit specified for such boilers in Section 217.164, the use of CEMS would appear to be of little value." PC 21 at 1.; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 87-88, 97-98 (May 7, 2009). Argonne also claims that, "[s]imilarly, the use of PEMS specified in Section 217.157(f) for boilers less than or equal to 100 mmBtu/hr rated heat input to show compliance to a non-numeric limit (combustion tuning) would also seem unnecessary." PC 21 at 1; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 91 (May 7, 2009).

Argonne requests clarification of the inconsistencies that it cites. PC 21 at 1. Argonne also proposes two specific revisions regarding industrial boilers with a rated heat input less than or equal to 100 mmBtu/hr for which combustion tuning is required. *Id*.; *see* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 97-97 (May 7, 2009) (proposed Section 217.164). Argonne first proposes "that performance testing not be required." PC 21 at 1. Second, Argonne proposes that "the use of CEMS or PEMS also not be required (although this could be employed at the option of the facility, *e.g.*, if the facility chose to use emissions averaging)." *Id*.

RESPONSES TO FIRST NOTICE COMMENTS

ArcelorMittal Response to Agency Comment

ArcelorMittal notes that its economic analysis of the cost effectiveness of a burner change for the tunnel furnace at its facility "assumed a 5-year equipment life and a contingency factor of 20%." PC 20 at 1. ArcelorMittal emphasizes that, in relying on these assumptions, it used figures published by USEPA and so noted in its analysis. *Id*.; *see* PC 10, Exh. A. Responding to the Agency, ArcelorMittal states that it revised that analysis by assuming a 15-year equipment life and a contingency of ten percent. PC 20 at 2. ArcelorMittal reports that this revised analysis "indicates a cost-effectiveness of $10,348/ton of NO_x removed for a next-generation 1500 burner and a cost-effectiveness of $17,841/ton of NO_x removed for a 1550 burner." *Id.* , Exh. A. ArcelorMittal argues that these figures are "well in excess" of the range of costs provided by the USEPA, the Agency, and the Technical Support Document. *Id*.

ArcelorMittal also replies to the Agency's comments regarding emissions limits for other sources. *See* PC 17 at 7-8. The Agency had indicated an emissions limit of 0.0147 lb/mmBtu applicable to the Beta Steel facility in Porter County, Indiana. PC 20 at 2; *see* PC 17 at 7. ArcelorMittal's comment stated that this figure was based on a manufacturer's estimate and that the actual permitted level is 0.077 lb/mmBtu. PC 15 at 3, PC 20 at 2. ArcelorMittal acknowledges the Agency's comment that this permitted level is lower than the 0.09 lb/mmBtu limit included in its proposal. PC 20 at 2. ArcelorMittal argues that, because the Agency erred in listing the emissions limit applicable to this facility, it casts doubt on the Agency's proposed limit for reheat furnaces. *Id*.

ArcelorMittal argues that the Agency has failed to demonstrate that its proposal is both economically reasonable and technically feasible with regard to reheat furnaces. PC 20 at 3. ArcelorMittal requests that the Board determine that the current permitted emissions limit of 0.171 lb/mmBtu applicable to its Riverdale facility constitutes RACT. *Id*. ArcelorMittal further argues that it would "conserve the time and resources of all parties by not requiring ArcelorMittal to initiate a proceeding for subsequent regulatory relief." *Id*.

Agency Response to U.S. Steel and ArcelorMittal Comments

U.S. Steel

The Agency first notes that U. S. Steel proposed to revise emissions averaging provisions "to cover time periods when the coke oven gas desulfurization unit is shutdown due to unplanned outages or upsets, as well as startups and shutdowns." PC 22 at 1, citing PC 19 at 3-4, PC 12 at 4. The Agency states that "[o]peration during periods of malfunction, breakdown, and startup are addressed under current Board regulations." PC 22 at 1, citing 35 Ill. Adm. Code 201.261 – 201.265. The Agency claims that, in the course of its permitting process, it routinely addresses operation during these periods by applying these regulations. PC 22 at 1-2. Accordingly, the Agency supports the proposed Section 217.158(i), addressing planned maintenance cycles, without further amendment. *Id.* at 2.

Second, the Agency addresses U.S. Steel's comment "regarding the emissions limitation for a recuperative reheat furnace combusting a combination of natural gas and coke oven gas that is based upon desulfurized coke oven gas having an estimated concentration of hydrogen cyanide of 130 parts per million or less. . . ." PC 22 at 2. U.S. Steel also raised the possibility that, once it completes construction and begins operation of the coke oven gas desulfurization unit, it may need to seek revision of the applicable emissions limit. *Id*.; *see* PC 19 at 3-4. The Agency states that it "agrees with U.S. Steel and acknowledges, as it did in its Post-Hearing Comments, that once the coke oven gas desulfurization unit is in operation, there is a possibility that the emissions limitation may require adjustment, which would be the subject of a future rulemaking." PC 22 at 2; *see* PC 11 at 23.

Third, the Agency notes that U.S. Steel has requested that the Board revise "the proposed testing and monitoring provisions under Section 217.157 in order to be consistent with its construction permit for its cogeneration boiler with a heat input capacity" of 505 mmBtu/hr. PC

22 at 2. The Agency states that the permit requires installation and operation of a NO_x and CO CEMS "within one year after the initial emission testing required by the permit unless this testing or further testing demonstrates that the unit normally complies by a margin of at least 5 percent with the NO_x and CO emission limit in the permit or the Illinois EPA approves further time for U.S. Steel to achieve this level of performance." *Id*. The Agency further states that the proposed Section 217.157(a)(1) "requires the installation and operation of a CEMS on industrial boilers with a rated heat input capacity greater than 250 mmBtu/hr." *Id.*

The Agency reports that, after additional discussion with U.S. Steel, it recommends amending the proposed Section 217.157(a)(1) to read as follows:

> [t]he owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR Part 75, as incorporated by reference in Section 217.104. However, the owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtulhr that combusts blast furnace gas with up to 10% natural gas on an annual basis and located at a source that manufactures iron and steel is not required to install, calibrate, maintain, and operate a continuous emissions monitoring system on such industrial boiler, provided the heat input from natural gas does not exceed 10% on an annual basis and the owner or operator complies with the performance test requirements under this Section and demonstrates, during each performance test, that NO_x emissions from such industrial boiler are less than 70% of the applicable emissions limitation under Section 217.164. In the event such owner or operator is unable to meet the requirements of this paragraph, a continuous emissions monitoring system is required within 12 months of such event, or by December 31, 2012, whichever is later. PC 22 at 3.

Fourth, the Agency states that it agrees with U.S. Steel that the denominator in the equation in the proposed Section 217.164(e) needs correction. PC 22 at 3. The Agency notes that its own first notice comments proposed the same correction. *Id*.; *see* PC 17 at 4.

ArcelorMittal

While the Agency notes that ArcelorMittal has restated its position that the proposed NO_x emissions limitation for reheat furnaces is economically unreasonable, the Agency states the belief that "the proposed limitation for reheat furnaces (recuperative, combusting natural gas) is technically feasible and economically reasonable, and that the information contained in the docket for this rulemaking adequately supports the proposed limitation." PC 22 at 3-4. Accordingly, the Agency now opposes any revision of that limitation. *Id.* at 3.

The Agency also notes that ArcelorMittal has renewed its request that the proposal "provide an option for a case-by-case exemption of the NO_x emissions limitation upon a demonstration that such controls would be economically unreasonable." PC 22 at 4. The

Agency states that it opposes such an option. *Id*. The Agency argues that Board regulations include mechanisms for regulatory relief. *Id*. The Agency indicates that it "is willing to work with affected sources, including ArcelorMittal, that may seek relief from unreasonable impacts due to unique or source-specific circumstances." *Id*.

FIRST NOTICE ISSUES

In both the first and second motions to amend its rulemaking proposal, the Agency indicates that it has negotiated with interested participants and agreed to revise certain provisions in order to memorialize agreements with them. *See generally* Mot. Amend 1 at 1-2, Mot. Amend 2 at 1-5. In its first notice comments, the Agency proposed additional corrections to and clarifications of its proposal. PC 17 at 1-6. These various amendments address many of the issues raised by the participants over the course of the rulemaking process. However, first notice comments demonstrate that the participants have not reached agreement on all issues. The Board will briefly discuss the unresolved issues in the following subsections. The Board then provides a detailed section-by-section discussion of the proposed rules following the Board's findings on economic reasonableness and technical feasibility.

ArcelorMittal

ArcelorMittal's first notice comment clarifies that ArcelorMittal has not reached an agreement with the Agency regarding the proposed emission limit for recuperative reheat furnace and asserts that the proposed limit is not supported by technical or economic justification. PC 15 at 2. ArcelorMittal contends that it has also successfully demonstrated in its previous comments that the initial NO_x emission limit proposed by the Agency was arbitrary, technologically infeasible, and economically unreasonable. ArcelorMittal requests that the Board "reconsider the proposed revised arbitrary emission limit (0.09 lb/mmbtu) requested by the Agency based on the economic reasonableness, technical feasibility and product quality issues." *Id.* In the following sections, the Board will provide a brief background concerning the proposed NO_x emission limit; ArcelorMittal's and the Agency' positions concerning the emission limit for reheat furnaces; and the Board's discussion and finding.

Background

The Agency's initial proposal included a NO_x emissions limit of 0.05 lb/mmBtu for recuperative reheat furnaces used in iron and steel making. Prop. at 50 (proposed Section 217.244(a)(2)). In comments filed on November 25, 2008, ArcelorMittal raised concerns regarding the applicability of the proposed emissions limitation to a tunnel furnace at its Riverdale Facility. ArcelorMittal stated that the proposed limitation is inappropriate for its tunnel furnace there because it cannot be considered as a reheat, annealing, or galvanizing furnace. Further, ArcelorMittal argued that, even if the Agency considers the tunnel furnace to be subject to the proposed regulations, the rules should include a specific definition and emission factor for ArcelorMittal's tunnel furnace. ArcelorMittal Comment at 1.

In post-hearing comments, ArcelorMittal reiterated its initial concerns regarding the proposed emissions limitations for reheat furnaces. Additionally, ArcelorMittal argued that

setting and implementing additional NO_x controls is neither technologically feasible nor economically reasonable. PC 10 at 1, 2.

For the February 3, 2009 hearing, the Agency testified that it was working with ArcelorMittal regarding the emissions limitation for reheat furnaces. Kaleel Prefiled Test. 2 at 2. On March 23, 2009, the Board received the Agency's second motion to amend its proposal. In that motion, the Agency proposed to amend the NO_x emissions limit for recuperative reheat furnaces from 0.05 lb/mmBtu to 0.09 lb/mmBtu. The Agency stated that, "[s]ince the last hearing, the Illinois EPA has continued to engage in negotiations with interested parties on remaining unresolved issues." Mot. Amend 2 at 1. The Agency further stated that such negotiations with ConocoPhillips, U.S. Steel, and ArcelorMittal have resulted in agreement to amend various provisions of the proposal. *Id.* at 1-2. The Board adopted the revised emissions limit for recuperative reheat furnace for first notice. In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 104 (May 7, 2009) (proposed Section 217.244(a)(2)).

Proposed First Notice Emission Limit

ArcelorMittal claims that, when the Agency revised its proposed NO_x emission limit for reheat furnaces to 0.09 lb/mmBtu, the Agency failed to provide any further technical or economical justification and also failed to demonstrate that the revised limit was based on RACT. PC 15 at 2. However, ArcelorMittal notes that it did receive information[2] relied upon by the Agency in establishing the revised limit and that the first notice comments are based on a review of that information.

ArcelorMittal notes that the emission limit of 0.0147lb/mmBtu listed for the reheat furnace at Beta Steel in the Agency's summary table has been changed in that furnace's permit to 0.077 lb/mmBtu. PC 15 at 3; *see* PC 20 at 2 n.1 (correcting original reference to limit of 0.77 lb/mmBtu). ArcelorMittal maintains that two other facilities, Nucor Steel and V & M Star, are not similar to ArcelorMittal's Riverdale facility. PC 15 at 3. ArcelorMittal continues that the emission limits listed for New Steel International and Minnesota Steel Industries are for facilities that are yet to be constructed. *Id.* at 4. Lastly, ArcelorMittal states that, while the Severstal Columbus facility is similar to the Riverdale facility, the Severstal facility has two tunnel furnaces, which can have an effect on the applicable emission limit. ArcelorMittal notes that, since the Riverdale facility does not have a second tunnel furnace or a shuttle furnace, it does not have the flexibility to operate optimally at all times if required to retrofit the tunnel furnace with new burners. *Id.* at 5-6. Moreover, ArcelorMittal notes that the Severstal facility has not been issued a Title V permit. Therefore, ArcelorMittal claims that "achievement of the emissions limit for these facilities have not been demonstrated." *Id.* at 4. ArcelorMittal maintains that the Agency's "arbitrary determination that 0.09 lb/mmBtu is technically feasible and the appropriate RACT-based limit for reheat furnaces" is questionable. *Id.*

[2] The information attached to ArcelorMittal's comments as Exhibit A consists of a summary table of permitted NO_x emissions levels for tunnel furnaces at seven steel plants.

ArcelorMittal maintains that the revised emission limit does not alter its earlier position concerning the economic reasonableness of the initial emission limit. ArcelorMittal states that the revised emission limit of 0.09 lb/mm Btu does not change the earlier cost analysis because ArcelorMittal would still have to install one of the two next generation burners to meet the revised emission limit. PC 15 at 5. ArcelorMittal argues that spending more than $22,000 per ton of NO_x controlled is economically unreasonable for a point source that contributes approximately 0.016 percent of the total 2006 Chicago area daily NO_x inventory of 812 tons. *Id.* In addition, ArcelorMittal states that changing burners on the tunnel furnace can have significant effect on the slab quality. Also, ArcelorMittal states that the unique product mix produced at the Riverdale facility differentiates ArcelorMittal's facility from other steel making facilities throughout the country. ArcelorMittal concludes by requesting that the Board "revisit its Proposed Rule and for Second Notice allow a source to be exempt from the proposed NO_x emission limits upon adequate demonstration that additional NO_x controls would be economically unreasonable." *Id.* at 6-7. ArcelorMittal maintains that it has made such a demonstration and requests that the tunnel furnace at the Riverdale be subject to its currently applicable permitted emission limit in lieu of the proposed emission limit for reheat furnaces. *Id.* at 7.

Agency Response

The Agency responds to ArcelorMittal by noting that the information in the TSD indicates that the NO_x control technologies identified for reheat, annealing, and galvanizing furnaces at iron and steel plants are reasonably available, technically feasible, and cost effective, even considering the tunnel design of ArcelorMittal's reheat furnace. PC 17 at 7. The Agency also addresses the issues raised by ArcelorMittal concerning the NO_x limitations for reheat furnaces at other sources listed in the Agency's summary table. The Agency notes that the emission limit for Beta Steel in Indiana is actually 0.077 lb/mmBtu, which is more stringent than the proposed emission limit. Additionally, the Agency states that the emission limits in the construction permits of plants that have not yet been constructed are enforceable limits. The Agency argues that the emission limits in the summary table support the proposed limit as technologically feasible. *Id.* at 8.

Additionally, the Agency raises concerns regarding ArcelorMittal's economic analysis, claiming that it is flawed and should not be considered for making a determination that the proposed limit is beyond RACT. First, the Agency states that the burners currently in use at the Riverdale facility were designed in the 1980s and are not considered an "advanced NO_x control technology". *Id.* Next, the Agency notes that ArcelorMittal's estimates of the cost effectiveness are based on assumptions that overstate the annualized costs. The calculation assumes an equipment life of only 5 years, which the Agency claims is unreasonable considering that the existing burners are about 20 years old. *Id.* The Agency also states that the interest rate of 10 percent and the contingency factor of 20 percent are high.

The Agency further states that ArcelorMittal requests a case-by-case RACT analysis, which is not provided for in the proposal. Further, the Agency states that it opposes inclusion of such options in the proposed rules. *Id.* at 9. The Agency notes that the Board regulations

include mechanisms for regulatory relief that sources may use under certain circumstances to seek relief from the rules of general applicability.

ArcelorMittal Response

On July 7, 2009, ArcelorMittal submitted a response to address concerns raised by the Agency concerning the emission limit for reheat furnaces. ArcelorMittal asserts that the five-year equipment life and a contingency factor of 20 percent are based on USEPA published values. PC 20 at 1. The equipment life factor is derived from USEPA's "Alternative Control Technique Document – NO_x Emissions from Iron and Steel Mills," EPA/453/R-94-065, September 1994, and the contingency factor is derived from USEPA's "Cost Air" spreadsheets available online at www.epa.gov/ttn. *Id.* at 1-2. However, to address the Agency's concerns, ArcelorMittal states that it prepared a revised economic analysis for burner change using a 15-year equipment life and a contingency factor of 10 percent. The revised analysis estimates a cost effectiveness of $10,348 per ton of NO_x reduced for the next generation 1500 burner and a cost effectiveness of $17,841 per ton of NO_x reduced for the 1550 burner. These costs, ArcelorMittal contends, are well in excess of the Agency's established range of $2500-3000 per ton of NOx emission reduction, USEPA's determination of less than $2,000 per ton, and the reference in the TSD to $1,000 per ton. *Id.* at 2.

Regarding the emission limits of other reheat furnaces, ArcelorMittal acknowledges that it inadvertently cited to Beta Steel's emission limit as 0.77 lb/mmBtu instead of 0.077 lb/mmBtu. However, ArcelorMittal notes that the Agency had listed Beta Steel's emission limit as 0.0147 lb/mmBtu, which is approximately five times lower than the permitted limit. *Id.* ArcelorMittal argues that the Agency's reliance on Beta Steel's emission limit calls into question the arbitrary limit proposed by the Agency. ArcelorMittal maintains that the Agency has failed to demonstrate that its proposal is both economically reasonable and technically feasible. *Id.* at 3. Therefore, ArcelorMittal requests that the Board make a decision based on RACT and retain the current permitted emission limit of 0.171 lb/mmBtu for ArcelorMittal's tunnel furnace at its Riverdale facility, and not require ArcelorMittal to initiate a proceeding for subsequent regulatory relief. *Id.*

Discussion

The Board's first notice proposal at Section 217.244(a)(2) sets forth a revised emissions limit of 0.09 lb/mmBtu for recuperative reheat furnaces combusting natural gas. The Board adopted the revised emission limit for first notice based on the Agency's expert testimony, comments, and information in the TSD. While ArcelorMittal had raised concerns about the initial emission limit of 0.05 lb/mmBtu, the Board believed that the revised limit proposed in the Agency's second motion to amend addressed ArcelorMittal's concerns, particularly since ArcelorMittal did not respond to the second motion to amend. However, since ArcelorMittal has reiterated its concerns regarding the proposed emission limit for reheat furnaces in its first notice comments, the Board will examine the issues raised by ArcelorMittal regarding the application of the proposed NO_x emissions limit for recuperative reheat furnaces to ArcelorMittal's tunnel furnace.

ArcelorMittal questions the technical feasibility and economic reasonableness of the proposed reheat furnace emission limit, which, according to the Agency, is based on a survey of the NO_x emission limits for furnaces similar to ArcelorMittal's tunnel furnace. The Agency's survey, which was submitted by ArcelorMittal as an exhibit to its first notice comments, includes NO_x emission limit information for reheat tunnel furnaces at seven steel plants. See PC 15, Exhibit A. The NO_x emission limits for the plants included in the Agency's survey range from 0.03 lb/mmBtu to 0.10 lb/mmBtu.

ArcelorMittal argues that the Agency relies on outdated, erroneous or never applied in practice emission limits to support the proposed reheat furnace emission limit. PC 15 at 4. First, ArcelorMittal notes that two of the facilities in the Agency's survey, Nucor Steel and V&M Star, are not similar to its Riverdale facility. ArcelorMittal states that Nucor Steel has an equalizing furnace and V&M Star has a billet furnace, both of which are different from ArcelorMittal's tunnel furnace. *Id.* at 5-6. However, ArcelorMittal does not explain how these differences among these furnaces affect the appropriate NO_x emission limitations for them. While the Board believes that ArcelorMittal may have raised a valid concern regarding the differences between the furnaces, the Board cannot draw any conclusions without additional information concerning the impact of those differences on the control of NO_x emissions.

Second, ArcelorMittal contends that emission limits from Minnesota Steel and New Steel International are not relevant since the plants have yet to be constructed. In this regard, the Board agrees with the Agency that emission limits in a construction permit are enforceable limits that provide support for the technical feasibility of the proposed emission limit. Next, ArcelorMittal notes that, although the Severstal Columbus plant is similar to the Riverdale facility, the Severstal plant's two tunnel furnaces can affect the applicable emission limits. ArcelorMittal notes that lack of redundancy in the operation at the Riverdale facility limits ArcelorMittal's ability to divert product between furnaces. While the Board recognizes that having only one tunnel furnace limits operational flexibility, ArcelorMittal's comments do not clearly explain why such flexibility is necessary to achieve the proposed emission limit.

Finally, the Board notes that ArcelorMittal does not address the remaining two steel plants in the Agency survey, *i.e.*, Beta Steel and Gallatin Steel. These plants have permitted emission limits in the same range as the proposed emissions limit of 0.09 lb/mmBtu. Based on the information in the Agency's survey, the Board finds that the proposed NO_x emissions limit of 0.09 lb/mmBtu is technically feasible for recuperative reheat furnaces, including tunnel furnaces. While ArcelorMittal has raised some concerns regarding the information considered by the Agency as it applies to its Riverdale facility, those concerns do not rise to a level at which the Board needs to reconsider its decision at first notice. Also, the Board believes that some of the issues raised by ArcelorMittal must be developed further before the Board can consider a site-specific RACT determination for the Riverdale facility.

Regarding the compliance costs, ArcelorMittal argues that the proposed emissions limit for reheat furnaces is economically unreasonable. As noted above, ArcelorMittal revised its economic analysis in response to Agency comments. The revised analysis estimates the cost effectiveness based on the replacement of the tunnel furnace's existing burner with two different models using a 15-year equipment life and a 10 percent contingency factor. PC 20 at 2. The

revised estimates of cost effectiveness are $10,348 per ton of NO_x reduced for a "1500 series burner" and $17,841 per ton of NO_x reduced for a "1550 series burner." ArcelorMittal argues that the revised site-specific estimates of cost effectiveness for the Riverdale facility are higher than the Agency's estimate of $3000 per ton of NO_x reduced.

While ArcelorMittal's estimate of cost effectiveness for NO_x control at its Riverdale facility is higher than the Agency's estimate, the Board notes that the Agency's estimate is based on generic cost data from the federal Alternative Control Technique documents for iron and steel plants. TSD at 98-99. The Board relied on the Agency's estimate of cost effectiveness in finding the proposed generally applicable NO_x emissions limit for reheat furnaces to be economically reasonable. The Board recognizes that compliance costs may be higher or lower than the Agency's estimate of $3000 per ton of NO_x reduced depending on site-specific factors, but the Board is not adopting an emission limit based on site-specific factors in this rulemaking. The Board notes that the economic information presented by the Agency in the TSD supports the Board finding that the proposed emissions limit is economically reasonable. While ArcelorMittal has raised concerns regarding the technical feasibility and economic reasonableness of applying the proposed reheat furnace emission limit to the Riverdale facility's tunnel furnace, the Board believes that the record is insufficient to support the adoption of a site-specific emissions limit in this proceeding.

Specifically, the Board believes that ArcelorMittal must fully address some of the technical issues relating to its claim that emission limits listed in the Agency's survey are not applicable to ArcelorMittal's tunnel furnace. In addition, ArcelorMittal must address Agency's contention that the Series 1430 burners now in use at the Riverdale facility were designed in the 1980s and are not considered an "advanced NO_x control technology." PC 17 at 8. Finally, even if the Board accepts ArcelorMittal's position that the proposed NO_x emission limit for reheat furnaces is economically unreasonable for the Riverdale Facility, the record lacks sufficient information other than ArcelorMittal's assertions on which the Board can rely to determine that the current permitted emission limit of 0.171 lb/mmBtu is RACT for the tunnel furnace at the Riverdale facility.

In light of these factors, the Board declines to adopt a site-specific NO_x emissions limit for the Riverdale facility in this rulemaking proceeding. However, as noted by the Agency in its response filed July 15, 2009, the Act and the Board's regulations include regulatory relief mechanisms through which ArcelorMittal may address these matters in support of the determination it seeks. *See, e.g.*, 415 ILCS 5/27, 28, 28.1 (2008); 35 Ill. Adm. Code 102.208, 102.210, 104.Subpart D (addressing site-specific rulemaking and adjusted standards). The Board notes that Section 28.1(f) of the Act provides in pertinent part that,

> [w]ithin 20 days after the effective date of any regulation that implements in whole or in part the requirements of the Clean Air Act, if any person files a petition for an individual adjusted standard in lieu of complying with the regulation, such source will be exempt from the regulation until the Board makes a final determination on the petition. 415 ILCS 5/28.1(f) (2008).

IERG

Averaging Provisions

Section 217.158(a)(1)(C). IERG's comment states that it "is substantially in agreement with the Board's determination to revise the language of Section 217.158(a)(1)(C), regarding the inclusion of 'replacement units' in emission averaging plans, as suggested by both IERG and the Agency." PC 16 at 5. However, IERG proposes that the Board insert a comma at a specified point in the subsection "for the purpose of clarity." *Id*. Having reviewed IERG's comment and the proposed Section 217.158(a)(1)(C), the Board cannot conclude that the addition of a comma would provide clarification and declines to adopt this proposed amendment.

Section 217.158(d)(1). IERG suggests that proposed Section 217.158(d)(1) be struck as "unnecessary." PC 16 at 6. As an alternative, IERG suggests that, if it retains subsection (d)(1) for recordkeeping purposes, the Board revise it so that an amended averaging plan is required only in the event that a unit listed in the plan is "permanently shut down." *Id*. at 6-7.

IERG contemplates that the Board may conclude that subsection (d)(1) fulfills recordkeeping purposes. *See* PC 16 at 6. The record does not demonstrate that it is unnecessary for or inconsistent with those purposes, and the Board declines at this point in the proceedings to strike it from the proposed rules. The Board notes that IERG proposes alternative language for this subsection in the event that the Board declines to strike it. *Id*. IERG suggests that replacing the phrase "taken out of service" with "permanently shut down" would make this subsection clearer. After reviewing IERG's comment and the record, the Board cannot conclude that the proposed alternative language improves the clarity of this provision. In addition, the Board notes that IERG has proposed changing from 30 to 90 days that amount of time in which an owner or operator must submit an amended plan after taking a unit out of service. *Id*. As IERG's first notice comment includes no argument that the 30-day period is insufficient, the Board declines to adopt the changes to Section 217.158(d)(1).

Section 217.158(d)(2). IERG notes that proposed Section 217.158(d)(2) "allows units that were previously exempt to be included in an averaging plan 'within 30 days after the unit no longer qualifies for the exemption.'" PC 16 at 7. IERG suggests that this 30-day limit is not necessary, as a unit becomes subject to all applicable provisions of the proposed rule once it is no longer exempt. *Id*. IERG further suggests that the provision does not clearly indicate whether, after that 30-day period, the owner or operator is no longer able to include the unit in an averaging plan if then plan is not updated during that time. *Id*. IERG proposes that Section 217.158(d)(2) be amended to allow the owner or operator to amend its existing averaging plan "at any time" to include a unit that is no longer exempt. IERG claims that this amendment is consistent with the Agency's intent in providing exceptions to the limit of one amendment per calendar year to an emissions averaging plan. *Id*.

The Board notes that the proposed subsection (d)(2) allows an owner or operator to include a unit that was exempt from specified requirements in an emissions averaging plan "within 30 days after the unit no longer qualifies for an exemption." In addition, the proposed subsection (c) provides that an owner or operator may amend an emissions averaging plan once per year at their own discretion. *See* MG Answers at 4. Responding to a question posed for the

first hearing by Midwest Generation, the Agency stated that it did not intend "to establish a 'once out/always out' provision." *Id*. Specifically, the Agency stated that, through the allowed annual revisions, a unit not originally included in an averaging plan may later be included in such a plan. *See id*. Considering both the proposed language of Section 217.158 and the Agency's statement of intent, the Board concludes that, if a unit no longer qualifies for an exemption, the owner or operator may include that unit in an averaging plan once within 30 days after the unit no longer qualifies for an exemption and again on an annual basis thereafter. Accordingly, the Board declines to adopt the language proposed by IERG.

Section 217.158(h). IERG states that "proposed [S]ection 217.158(h) would allow exclusion from the 'calculation demonstrating compliance' certain time periods when a unit is shut down for a maintenance turnaround." PC 16 at 7. IERG notes that, in order to avail itself of this proposed exemption, the owner or operator must first notify the Agency in writing in advance. IERG requests that the Board clarify this subsection to provide that, while the period excluded from the calculation must not exceed 45 days, the actual maintenance turnaround is not limited to a 45-day duration. *Id*. IERG proposes specific language to effectuate this intent. *Id*.

The Board notes that proposed subsection (h) allows the owner or operator of a unit located at a petroleum refinery to "exclude from the calculation demonstrating compliance" periods of up to 45 days during which the unit is shut down a maintenance turnaround after providing notice to the Agency. While the Board notes IERG's comment that the maintenance turnaround itself may last longer than 45 days, the Board concludes that the proposed subsection limits to 45 days the period that may be excluded from the calculation demonstrating compliance. The Board cannot conclude that the language requires the maintenance actually to be performed with that 45-day period and declines to adopt the proposed revision.

Types of Units Not in Nonattainment Areas

IERG restates its position that the proposed rules should not establish emissions limits for types of units that are not now located in the nonattainment areas. PC 16 at 8 (citations omitted). IERG acknowledges that the Agency has not concurred with the request to omit emissions limits for these units. *Id*. at 9.

IERG argues that it establishes "inappropriate and, even perhaps, troublesome" precedents to establish emission limits for these units. PC 16 at 9. IERG claims that analyses of specific units that may operate in the nonattainment areas could demonstrate that the proposed emissions limits are not RACT for a particular unit. *Id*. IERG argues that the opportunity to perform analyses of this kind would effectively pass with the adoption of this proposed rule. *Id*. IERG also expresses concern that the proposed emission limits may be viewed as the "RACT floor" for units located outside of nonattainment areas. *Id*. IERG argues that owners and operators of such units have not had cause or opportunity to participate in this rulemaking and that they may have difficulty complying with the proposed limits. *Id*. at 9-10.

Addressing limits for these types of units, the Agency states that it has performed the engineering and cost analysis on which the limits are based. Tr.1 at 62; *see* TSD at 66-85, 118-25. The Agency argues that the proposed rule would guide those units if nonattainment areas

expand through a rulemaking to include them. Tr.1 at 62. The Agency also argues that, although new source standards are generally more stringent than RACT, new source applicants frequently seek alternatives to those standards. PC 11 at 20. The Agency claims that emission units may seek to operate in the nonattainment areas and that it is reasonable that new sources there should at a minimum meet RACT requirements. PC 11 at 20. The Agency further claims that the proposed standards "will provide a floor for future emission sources that may seek to locate in these areas." *Id.*

Addressing emissions limits in its first notice comment, IERG acknowledges that benchmarks have some value. PC 16 at 4. IERG also expresses general agreement that new sources should theoretically be subject to emissions requirements more strict than a RACT rule. *Id*. The Board agrees with the Agency's general position that the proposed emission standards serve as benchmark for future emission sources that may locate in the nonattainment areas and provide a "floor" against which to compare the new source standards. The Board notes IERG's argument that a site-specific analysis of the controls constituting BACT or LAER for a new source could conceivably generate a less stringent emissions limitation than RACT. However, the Board cannot conclude that this possibility outweighs the value of establishing a benchmark.

The Board also notes IERG's concern with the potential application of the proposed emissions limits "to units outside of the nonattainment areas covered by the proposed rule." PC 16 at 10. In this regard, the Board notes that the applicability provision at Section 217.150 of the proposed rule explicitly identifies the geographical extent of the nonattainment areas. The Agency has clearly testified that any designation of a new nonattainment area would require the Agency to propose an amendment to the rule. Tr.1 at 57, 61. The Board conceives that such a rulemaking proceeding may address emissions limits in addition to the geographical boundaries of the nonattainment area.

After careful review of the rule proposed at first notice and IERG's comments, the Board declines to strike from the proposal emissions limits for types of units not now in the nonattainment areas.

Reporting Requirements

IERG notes Section 217.156(j)(1) and (j)(2) regarding quarterly reports from owners or operators of units demonstrating compliance through CEMS. IERG first proposed to delete subsection (j)(1) on reporting CEMS down time because it refers to information contained in the provisions of the Code of Federal Regulations that are cited in subsection (j)(2). PC 16 at 11.

In subsection (j)(2), IERG proposes to strike a reference to 40 C.F.R. 60.13, arguing that it pertains to monitoring and not to the recordkeeping and reporting that are the subjects of this section. IERG also proposes to amend the reference to 40 C.F.R. 75 by citing specifically to 40 C.F.R 75.73(f). IERG argues that this amended citation refers specifically to quarterly reporting requirements. IERG further argues that Section 217.157 addressing testing and monitoring refers to the general CEMS requirements under Part 75.

Having reviewed the proposed subsection (j) and the provisions of the Code of Federal Regulations cited in it, the Board cannot conclude that subsection (j)(1) is entirely embodied within subsection (j)(2) or that the two subsections conflict with one another. Accordingly, the Board declines to strike subsection (j)(1). In subsection (j)(2), the Board declines to add language referring specifically to a "summary report," which is specifically addressed in the cited provisions of the Code of Federal Regulations. *See* 40 C.F.R. 60.7(c), (d). Also, having reviewed the language of 40 C.F.R. 60.13, the Board cannot conclude that it is unrelated to the recordkeeping and reporting provisions of the proposed Section 217.156 and declines to strike the reference to it. Finally, while noting IERG's comment that 40 C.F.R. 75.73(f) specifically addresses quarterly reports, the Board after examining Part 75 cannot conclude that only Section 75.73(f) may be relevant to those reports under proposed Section 217.156(j). Accordingly, the Board declines to amend that citation as proposed by IERG.

Argonne

Performance Testing

In its comment dated July 6, 2009, Argonne states that the proposed Section 217.154(a) "requires performance testing for all industrial boilers regardless of size, unless they employ CEMS." PC 21 at 1. Argonne further states that, under the proposed Section 217.166, industrial boilers with a rated heat input less than or equal to 100 mmBtu/hr are required to perform combustion tuning instead of complying with a numeric NO_x emissions limitation. *Id*. Argonne proposes, for industrial boilers with such a rated capacity, "that performance testing not be required." *Id*.

In its comment filed on July 6, 2009, the Agency clarified Section 217.154(a) to refer to performance testing for units subject to "emissions limitations" under the proposed Subparts E, F, G, H, or I . PC 17 at 2-3. The Agency also sought to add an exclusion from the performance testing requirement for units demonstrating compliance through alternatives including combustion tuning. *Id*. While Argonne's and the Agency's comments do not refer to one another, the Board concludes that the Agency's clarification addresses Argonne's proposal.

In its comment, Argonne states that, "[f]or boilers less than or equal to 100 mmBtu/hr rated heat input demonstrating compliance through an emission averaging plan and not using CEMS, Section 217.157(a)(4) requires performance testing. . . ." PC 21 at 1. Argonne argues, however, that the subsection "does not address boilers less than or equal to 100 mmBtu/hr rated heat input where emissions averaging is not used." *Id*. While the proposed Section 217.157(a)(4) does not specifically refer to industrial boilers with such a rated capacity that are not part of an emission averaging plan, it does not require that they undergo an initial performance test. These different requirements, based on whether boilers are or are not part of an averaging plan, are generally consistent with the clarification described in the preceding paragraph. Consequently, the Board cannot conclude that the proposed Section 217.157(a)(4) requires amendment.

CEMS/PEMS

Argonne argues that the use of CEMS should not be required for industrial boilers with a rated heat input less than or equal to 100 mmBtu/hr that are required to perform combustion tuning instead of complying with a numeric NO_x emissions limitation. PC 21 at 1. Argonne generally argues that, since those units are not required to comply with a numeric NO_x emissions limit, the use of CEMS or PEMS appears to be unnecessary. *Id*. Nonetheless, Argonne states that CEMS or PEMS "could be employed at the option of the facility" if, for example, it opts to rely on emissions averaging to demonstrate compliance. *Id*.

Under the proposed Section 217.157(a)(5), the owner or operator of an industrial boiler with a rated heat input capacity less than or equal to 100 mmBtu/hr demonstrating compliance through an emission averaging plan *may*, instead of conducting an initial performance test under subsection (a)(4), install and operate CEMS. *See* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 88 (May 7, 2009) (proposed Section 217.157(a)(5)) (emphasis added). If an owner or operator opts to rely upon CEMS, it "must" use the system to demonstrate compliance with the applicable emissions averaging plan. *Id*.

While Argonne's comment suggests that a boiler might use CEMS "in place of emissions averaging," operating CEMS is not itself a compliance option. *See* PC 21 at 1. Under proposed Section 217.157(a)(5), CEMS is an alternative to performance testing in demonstrating compliance with an emissions averaging plan. Consequently, the Board concludes that the proposed language is generally consistent with Argonne's comments and declines to amend Section 217.157(a)(5). On similar grounds, the Board also declines to amend Section 217.157(f), which provides the owner or operator of specified units "may" rely on PEMS. *See* In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 91 (May 7, 2009).

ECONOMIC REASONABLENESS AND TECHNICAL FEASIBILITY

The Board notes that the Agency has negotiated with interested participants and agreed to revise certain provisions in order to memorialize agreements with them. *See generally* Mot. Amend 1 at 1-2, Mot. Amend 2 at 1-5. The Agency has more recently proposed additional clarifications of and corrections to its proposal. PC 17 at 1-6. These amendments have addressed issues including, but not limited to, compliance deadlines, deadlines for installing CEMS, and emissions limitations. *Id*. Having granted the Agency's two motions to amend the proposal and adopting additional clarifications and corrections, and having reviewed the entire record in this proceeding, the Board finds that its second notice proposal is technologically feasible and economically reasonable.

The Board proceeds below with its section-by-section discussion of its second notice proposal.

SUMMARY OF BOARD'S SECOND NOTICE PROPOSAL

Part 211: Definitions and General Provisions

The Board proposes to add twelve new definitions to the existing Part 211. Statement at 13; *see* Prop. at 13-15; *see generally* 35 Ill. Adm. Code 211. The Board summarizes each of the proposed new definitions below.

Section 211.665: Auxiliary Boiler

In its proposal, the Agency sought to add a definition of the term "auxiliary boiler," which is necessitated by the proposed Subparts D and E. Statement at 14. In its entirety, the proposed definition states that "'[a]uxiliary boiler' means, for the purpose of Part 217, a boiler that is operated only when the main boiler or boilers at a source are not in service and is used either to maintain building heat or to assist in the startup of the main boiler or boilers. This term does not include emergency or standby units and load shaving units." Prop. at 13 (proposed new Section 211.665).

Section 211.995: Circulating Fluidized Bed Combustor

In its proposal, the Agency sought to add a definition of the term "circulating fluidized bed combustor," which is necessitated by the proposed Subpart E. Statement at 14. In its entirety, the proposed definition states that "'[c]irculating fluidized bed combustor' means, for purposes of Part 217, a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop." Prop. at 14 (proposed new Section 211.995).

Section 211.1315: Combustion Tuning

In its proposal, the Agency sought to add a definition of the term "combustion tuning," which is necessitated by Subparts E and F. Statement at 14. In its entirety, the proposed definition states that "'[c]ombustion tuning' means, for purposes of Subpart 217, review and adjustment of a combustion process to maintain combustion efficiency of an emission unit, as performed in accordance with procedures provided by the manufacturer or by a trained technician." Prop. at 14 (proposed new Section 211.1315).

Section 211.1435: Container Glass

In its proposal the Agency sought to add a definition of the term "container glass," which is necessitated by Subpart G. Statement at 14. In its entirety, the proposed definition states that "'[c]ontainer glass' means, for purposes of Part 217, glass made of soda-lime recipe, clear or colored, which is pressed or blown, or both, into bottles, jars, ampoules, and other products listed in Standard Industrial Classification 3221." Prop. at 14 (proposed new Section 211.1435).

Section 211.2355: Flare

In its proposal, the Agency sought to add a definition of the term "flare." Prop. at 14. The Agency stated that the proposed definition is necessary "because flares are not subject to the NO_x general requirements under Subpart C." *Id*. In its entirety, the proposed definition states

that "'[f]lare' means an open combustor without enclosure or shroud." Prop. at 14 (proposed new Section 211.2355).

Section 211.2357: Flat Glass

In its proposal, the Agency sought to add a definition of the term "flat glass," which is necessitated by Subpart G. Statement at 14. In its entirety, the proposed definition states that "'[f]lat glass' means, for purposes of Part 217, glass made of soda-lime recipe and produced into continuous flat sheets and other products listed in Standard Industrial Classification 3211." Prop. at 14 (proposed new Section 211.2357).

Section 211.2625: Glass Melting Furnace

In its proposal, the Agency sought to add a definition of the term "glass melting furnace," which is necessary for applicability under Subpart G. Statement at 14. In its entirety, the proposed definition states that "'[g]lass melting furnace' means, for purposes of Part 217, a unit comprising a refractory vessel in which raw materials are charged, melted at high temperature, refined and conditioned to produce molten glass." Prop. at 14-15 (proposed new Section 211.2625).

In its pre-hearing comment filed January 20, 2009, Saint-Gobain suggested amending this proposed definition to state that "'[g]lass melting furnace' means, for purposes of Part 217, a unit comprising a refractory vessel in which raw materials are charged and melted at high temperature to produce molten glass." PC 4 at 1. The Agency incorporated this recommendation in its first motion to amend its proposal. Mot. Amend 1 at 2.

Section 211.3100: Industrial Boiler

In its proposal, the Agency sought to add a definition of the term "industrial boiler," which is necessary for applicability under Subpart E. Statement at 15. In its entirety, the proposed definition provided that

> '[i]ndustrial boiler' means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. The term does not include boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, and cogeneration units, as that term is defined in Section 225.130 of Part 225, if such boilers or cogeneration units are subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225. Prop. at 15 (proposed new Section 211.3100).

In a question filed for the first hearing on October 14, 2008, Midwest Generation asked whether, in terms of definitions or use, the Agency intended in its proposed rule to distinguish between industrial boilers, fossil fuel-fired boilers, and EGUs. MG Questions at 1. In response, the Agency provided the following distinction: "EGU boilers are used primarily to generate electricity to sell on the electricity grid. Industrial boilers are used

primarily to generate power (steam or electricity) for use at the source. Both types of boilers may use fossil fuels, coal, oil, or gas." MG Answers at 1.

In a question filed for the first hearing on October 14, 2008, IERG inquired whether the Agency intended to include in the definition of "industrial boiler" either "cogeneration units and/or heat recovery steam generators that capture waste heat from turbines or engines." IERG Questions at 4; *see* Prop. at 41-44 (proposed Subpart D). The Agency responded simply "[y]es." IERG Answers at 6. The Agency stated, however, that it had not "performed any analysis to determine the technical feasibility and cost for cogeneration units and/or heat recovery steam generators to comply with its proposed rule." *Id.; see* Tr.1 at 66.

In another question filed for the first hearing on October 14, 2008, IERG inquired whether the Agency intended to include in the definition of "industrial boiler" or "process heater" those "gas-fired chillers that provide cooling for either processes or occupied spaces." IERG Questions at 4; *see* Prop. at 41-47. The Agency responded by stating that, "[i]f refrigerant is heated [in]directly by gas heating, it is a process heater." IERG Answers at 6; *see infra* at 27 (addressing proposed definition of "process heater"); *see also* Tr.1 at 68-69 (clarifying Agency response). The Agency further stated that, although it had not "performed any analysis to determine the technical feasibility and cost for such gas-fired chillers to comply with its proposed rule," it "believes that the technical feasibility and cost for gas-fired chillers should be similar to process heaters and industrial boilers." IERG Answers at 6-7, *see* Tr.1 at 67-68.

In a question filed for the first hearing on October 14, 2008, Midwest Generation first stated that

> [a]pplicability of Subpart M and the nonapplicability of Subpart D are premised upon the applicability of the Part 225, Subparts C, D, and E ("the Illinois CAIR") to electric generating units ("EGUs"). However, the federal rule underlying the Illinois CAIR has been overturned (assuming the D.C. Circuit Court issues the mandate for its decision in appeal of the rule), thus invalidating the Illinois CAIR. Therefore, it appears that EGUs, which the Agency apparently intended to cover in Subpart M of this rulemaking, are covered by Subpart D. MG Questions at 2.

Midwest Generation then asked whether the Agency proposed to amend its language in Subpart M. MG Answers at 2; *see* Prop. at 51-52 (proposed Subpart M). Although the Agency stated that it disagreed "with the underlying premise of this question," it indicated that it was "amenable to amending" this definition of "industrial boiler" as described in response to a subsequent question. MG Answers at 2; *see* Tr.1 at 190-92 (addressing status of federal rule).

In that subsequent question, Midwest Generation first stated that, "[b]ased upon the proposed applicability language in Subpart M, Section 217.340, [and] assuming the D.C. Circuit Court issues the mandate implementing its decision in the appeal of the CAIR, EGUs would be subject to the provisions of Subpart D." MG Questions at 3. Midwest Generation consequently asked whether the Agency would consider amending its proposal to include the following definition:

> '[i]ndustrial boiler' means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. The term does not include boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, and cogeneration units, as that term is defined in Section 225.130 of Part 225~~, if such boilers or cogeneration units are subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225~~. *Id*.

Responding to Midwest Generation, the Agency stated that it was "amenable" to amending its proposed definition in the following fashion:

> '[i]ndustrial boiler' means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. The term does not include boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, ~~and cogeneration units, as that term is defined in Section 225.130 of Part 225,~~ if such boilers ~~or cogeneration units are subject to~~ meet the applicability criteria under Subpart M of Part 217~~the CAIR NO_x Trading Programs under Subpart D or E of Part 225~~. MG Answers at 4-6.

During the first hearing on October 14, 2008, IERG posed the following question to the Agency:

> [i]f a heat recovery steam generator recovering heat from the exhaust of, A, process, B, turbine, or C, engine, is considered a boiler for proposed – for this proposed rule, then does the Agency intend to define the boiler's rated heat input capacity as a direct heat input to the heat recovery steam generator from combustion of fuel in the heat recovery steam generator – for example, from a duct burner – or does it intend to also include the heat input from the upstream process in the rated capacity? Tr.1 at 65.

Responding in writing to this question, the Agency first stated that it had reviewed USEPA regulations regarding turbines from which exhaust is captured in a heat recovery steam generator. PC 1 at 1, citing 40 C.F.R. 60, Subparts GG, KKKK. The Agency stated that it had decided "to treat a combustion turbine and heat recovery steam generator as a single unit." PC 1 at 1. The Agency claims that this simplifies testing and monitoring NO_x emissions. *Id*. The Agency elaborated that

> [t]he supplemental heat input of the duct burner/heat recovery steam generator will be added to the heat input of the turbine. The combined heat input will be subject to the applicable NO_x emission limit for turbines under Subpart Q of Part 217. Therefore, the NO_x emissions will be tested/monitored after the exhaust from the heat recovery steam generator and shall comply with the NO_x emission limit for a turbine. However, the heat input of the duct burner/heat recovery steam generator shall not be added to the heat input of the turbine to increase the rated capacity of the turbine. *Id.* at 1-2.

The Agency accordingly proposed to amend the definition of "industrial boiler" by, among other change, excluding "a heat recovery steam generator that captures waste heat from a combustion turbine. . . . " *Id*. at 2.

In its first motion to amend its rulemaking proposal, the Agency recommended that the Board "[a]mend Section 217.3100 by to reflect the provisions as previously agreed to between the Illinois EPA and Midwest Generation as reflected in the Illinois EPA's Answers to Midwest Generation's Questions for Agency Witnesses, filed September 30, 2008, and the October 14, 2008, hearing." Mot. Amend 1 at 2; *see* MG Questions at 3, MG Answers at 4-6. In those answers, the Agency had proposed to amend this definition to provide that

> 'industrial boiler' means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. This term does not include boilers serving a generator that has a nameplate capacity greater than 25MWe and produces electricity for sale, ~~and cogeneration units, as that term is defined in Section 225.120 of Part 225,~~ if such boilers ~~or cogeneration units are subject to~~ meet the applicability criteria under Subpart M of Part 217 ~~the CAIR NO_x Trading Programs under Subpart D or E of Part 225.~~ MG Answers at 6; *but see* PC 1 at 2 (proposing to exclude from definition heat recovery steam generators capturing waste heat from combustion turbines).

In its post-hearing comments, Midwest Generation states that,

> [w]ith the amendments proposed to the Board by the Agency in its Motion to Amend Rulemaking Proposal ("Agency's Motion") filed January 30, 2009, Midwest Generation generally supports the Agency's proposal as it applies to electric generating units ("EGUs"). The proposed amendments incorporate by reference provisions agreed to between the Agency and Midwest Generation as part of the Agency's Answers to Midwest Generation's Questions for Agency Witnesses ("Agency's Answers"), which were filed before this Board on September 30, 2008. PC 9 at 1-2 (noting Agency's amended proposed definition of "industrial boiler"); *see* Mot. Amend 1 at 2; *see also* Tr.1 at 199-200.

In its second motion to amend its rulemaking proposal, the Agency recommended that the Board accept the following amendment to this definition:

> 'industrial boiler' means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. The term does not include a heat recovery steam generator that captures waste heat from a combustion turbine and boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, if such boilers meet the applicability criteria under Subpart M of Part 217. Mot. Amend 2 at 6.

The Agency states that this proposed amendment excludes from the definition "a heat recovery steam generator that captures waste heat from a combustion turbine." Mot. Amend 2 at 5. The Agency further states that it proposed this amendment in post-hearing comments filed on November 5, 2008, but inadvertently excluded it from the first motion to amend. *Id*. at 5, 6; *see* PC 1 at 1-2, citing Tr.1 at 65.

In its first notice comments, the Agency proposed to strike the reference to "cogeneration units." PC 17 at 1-2, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 26 (May 7, 2009). The Agency proposed the following language:

> "industrial boiler" means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. This term does not include a heat recovery steam generator that captures waste heat from a combustion turbine and boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, if such boilers meet the applicability criteria under Subpart M of Part 217. PC 17 at 1.

Section 211.3355: Lime Kiln

In its proposal, the Agency sought to add a definition of the term "lime kiln," which is necessitated by Subpart H. Statement at 15. In its entirety, the proposed definition states that "'[l]ime kiln' means, for purposes of Part 217, an enclosed combustion device used to calcine lime mud, which consists primarily of calcium carbonate, into calcium oxide." Prop. at 15 (proposed new Section 211.3355).

Section 211.3475: Load Shaving Unit

In its proposal, the Agency sought to add a definition of the term "load shaving unit," which is included in the proposed definition of the term "auxiliary boiler." Statement at 15. In its entirety, the proposed definition states that "'[l]oad shaving unit' means, for purposes of Part 217, a device used to generate electricity for sale or use during high electric demand days, including but not limited to stationary reciprocating internal combustion engines or turbines." Prop. at 15 (proposed new Section 211.3475).

In a question filed for the first hearing on October 14, 2008, Midwest Generation asked the Agency whether the definition of "load shaving unit" includes a peaker power plant. MG Questions at 2. The Agency responded simply "[y]es." MG Answers at 2.

Section 211.4280: Other Glass

In its proposal, the Agency sought to add a definition of the term "other glass," which is necessitated by Subpart G. Statement at 15. In its entirety, the proposed definition states that "'[o]ther glass' means, for purposes of Part 217, glass that is neither container glass, as that term

is defined in Section 211.1435, nor flat glass, as that term is defined in Section 211.2357." Prop. at 15 (proposed new Section 211.4280).

Section 211.5195: Process Heater

In its proposal, the Agency sought to add a definition of the term "process heater," which is necessitated by Subpart F. Statement at 15. In its entirety, the proposed definition states that "'[p]rocess heater' means, for purposes of Part 217, an enclosed combustion device that burns gaseous or liquid fuels only and that indirectly transfers heat to a process fluid or a heat transfer medium other than water. This term does not include pipeline heaters and storage tank heaters that are primarily meant to maintain fluids at a certain temperature or viscosity." Prop. at 15-16 (proposed new Section 211.5195).

In a question filed for the first hearing on October 14, 2008, IERG inquired whether the Agency intended to include in the definition of "industrial boiler" or "process heater" those "gas-fired chillers that provide cooling for either processes or occupied spaces." IERG Questions at 4; *see* Prop. at 41-47. The Agency responded by stating that, "[i]f refrigerant is heated [in]directly by gas heating, it is a process heater." IERG Answers at 6; *see* Tr.1 at 68-69 (clarifying Agency response). The Agency further stated that, although it had not "performed any analysis to determine the technical feasibility and cost for such gas-fired chillers to comply with its proposed rule," it "believes that the technical feasibility and cost for gas-fired chillers should be similar to process heaters and industrial boilers." IERG Answers at 6-7, *see* Tr.1 at 67-68.

Part 217: Nitrogen Oxides Emissions

Subpart A: General Provisions

Section 217.100: Scope and Organization. Existing Section 217.100 sets forth the scope and organization of Part 217. 35 Ill. Adm. Code 217.100. In its proposal, the Agency sought only to "amend subsection (b) of this Section to state that permits for sources subject to Part 217 may be required under Section 39.5 of the Act, in addition to 35 Ill. Adm. Code Part 201." Statement at 15; *see* Prop. at 22; *see also* 415 ILCS 5/39.5 (2008) (Clean Air Act Permit Program).

Section 217.104: Incorporations by Reference. Existing Section 217.104 incorporates by reference various specified materials. 35 Ill. Adm. Code 217.104. In its proposal, the Agency sought "to add test methods under 40 C.F.R. Part 60 and [USEPA] Alternative Control Techniques Documents." Statement at 16; *see* Prop. at 22-23.

In its first notice comments, the Agency sought to update one incorporation by reference in proposed subsection (l) and to add two new incorporations by reference in proposed subsections (q) and (r). PC 17 at 2.

Subpart B: New Fuel Combustion Emission Sources

Section 217.121: New Emission Sources. Existing Section 217.121 addresses NO_x emissions from new sources. 35 Ill. Adm. Code 217.121. In its proposal, the Agency sought "to repeal this Section." Statement at 16; *see* Prop. at 23-24; *see also* Tr.1 at 187.

Subpart C: Existing Fuel Combustion Emission Units

Section 217.141: Existing Emission Units in Major Metropolitan Areas. Section 217.141 now regulates existing emission sources in major metropolitan areas. 35 Ill. Adm. Code 217.141. The Agency's proposal first sought "to amend this Section by changing the term 'source' to 'unit.'" Statement at 16; *see* Prop. at 25-26. The Agency also sought to add language in a new subsection (d)(2) providing "that the Section does not apply to emission units that are subject to the emissions limitations of Subpart D, E, F, G, H, M, or Q of Part 217." Statement at 16; *see* Prop. at 26.

During the first hearing on October 14, 2008, counsel for Midwest Generation questioned whether Section 217.141 would be necessary if the Board adopts this proposed rule. Tr.1 at 189. The Agency responded that the Board originally promulgated this language in 1972 as Rule 207 and applied it to both new and existing sources. PC 1 at 4, citing In the Matter of: Emissions Standards, R71-23. The Agency stated that

> [t]he NO_x limitations under Section 217.141 apply to any existing fuel combustion emission source with an actual heat input equal to or greater than 73.2 MW (250 mmbtu/hr), located in the Chicago or St. Louis (Illinois) major metropolitan areas. Currently, sources meeting the heat input criteria and located in these areas are subject to these NO_x limitations. Accordingly, these limitations appear in sources' permits. PC 1 at 4.

Subpart D: NO_x General Requirements

In its first notice comments, the Agency proposed to "[a]mend the heading of Subpart D of Part 217 by deleting the reference to 'Industrial Boilers' and adding "NO_x General Requirements.'" PC 17 at 2; *see* 33 Ill. Reg. 6941 (May 22, 2009).

Section 217.150: Applicability. In its original proposal, the Agency sought to add a new Section 217.150 addressing the applicability of the proposed Subparts C, D, E, F, G, H, and M of Part 217. Statement at 16; *see* Prop. at 26-27.

The proposed subsection (a)(1)(A) provides that Subparts E, F, G, H, I, and M apply to all sources that are located in the two areas designated as nonattainment for the 8-hour ozone and $PM_{2.5}$ standards and that emit or have the potential to emit NO_x in an amount equal to or greater than 100 tons per year. Statement at 10-11, 16; *see* Prop. at 26. The proposed subsection (a)(1)(B) provides that Subparts E, F, G, H, I, and M also apply to "[a]ny industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler at such sources [described in subsection (a)(1)(A)] that emits NO_x in an amount equal to or

greater than 15 tons per year and equal to or greater than five tons per ozone season." Statement at 10-11, 16-17; *see* Prop. at 26, Gupta Pre-filed Test. at 2.

Noting that the proposed regulations would apply to both existing and new units, the Agency stated that the existing units that would become subject to the regulations include the following: "80 industrial boilers, 84 process heaters, four glass melting furnaces, two lime kilns, six furnaces used in iron and steel making, and 20 fossil fuel-fired stationary boilers." Statement at 10; *see* TSD at 130-31 (describing affected sources). These 196 sources emitted 44,625 tons of NO_x in 2005, and the Agency projected that its proposal would reduce those emissions by 20,666 tons or 46.3%. TSD at 133 (Table 10-1), Gupta Pre-filed Test. at 3.

In a question filed for the first hearing on October 14, 2008, Midwest Generation noted that the section employs the term "emits" in determining applicability. MG Questions at 1. Midwest Generation asked how the Agency would determine "whether a unit emits, as opposed to having the potential to emit, at the threshold levels." *Id*. The Agency responded that, "[i]n general, the Illinois EPA intends to rely on Annual Emission Reports submitted by owners/operators of emission sources." MG Answers at 2; *see* Tr.1 at 184-86.

In the second motion to amend its rulemaking proposal, the Agency sought to add a new subsection providing in its entirety that "[f]or purposes of this Section, 'potential to emit' means the quantity of NO_x that potentially could be emitted by a stationary source before add-on controls based on the design capacity or maximum production capacity of the source and 8,760 hours per year or the quantity of NO_x that potentially could be emitted by a stationary source as established in a federally enforceable permit." Mot. Amend 2 at 6. The Agency stated that it added this definition in response to comments by USEPA. *Id*. at 2.

In another question filed for the first hearing, Midwest Generation noted that Section 217.150(a) originally provided that "[t]he provisions of this Subpart and Subparts D, E, F, G, H, and M apply to . . . [a]ll sources. . . ." MG Questions at 2; *see* Prop. at 26. Midwest Generation asked whether the Agency intended "that all of these subparts actually apply to all sources in the specified geographic areas." MG Questions at 2-3. Specifically, Midwest Generation asked whether the Agency instead intended "that only one subpart will apply to a unit or units at threshold sources, as determined by the characteristics of the unit." *Id*. at 3. The Agency responded by stating its "intent that each respective Subpart apply to sources that meet the applicability criteria and individual emission units at such sources that meet the applicability criteria, *i.e.*, the provisions of a respective Subpart apply to the extent a source includes emission units of the type covered under the Subpart." MG Answers at 3.

In another question filed for the first hearing, Midwest Generation claimed that "[t]he 'all industrial boilers' language in Section 217.160(a) and similar language in the other subparts could be construed to expand the scope of [the original] Section 217.150(a)(2), which refers to 'any industrial boiler [and other types of emission units] that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 41-42 (proposed Section 217.160(a)). Midwest Generation questioned whether the Agency intended "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responded by expressing the intent "that each Subpart apply to

all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

The Agency also proposed a new subsection (b) providing that, if a source ceases to fulfill the emissions criteria of subsection (a) of this Section, the requirements of Subparts E, F, G, H, I, or M of Part 217 continue to apply to any emission unit that was ever subject to the provisions of any of those Subparts. *See* Statement at 17; Prop. at 26. The proposed subsection (c) provides that "the provisions of this Subpart do not apply to afterburners, flares, and incinerators." *See* Statement at 17; Prop. at 27.

In addition, the Agency's proposed subsection (d) provided that,

> where a construction permit, for which the application was submitted to the Agency prior to the adoption of Subpart C, is issued that relies on decreases in emissions of NO_x from existing emission units for purposes of netting or emission offsets, such NO_x decreases remain creditable notwithstanding any requirements that may apply to the existing emission units pursuant to Subpart C and Subpart D, E, F, G, H, or M of Part 217. Statement at 17; *see* Prop. at 27.

In the first motion to amend its rulemaking proposal, the Agency sought to add a subsection (e) providing in its entirety that "[t]he owner or operator of an emission unit that is subject to this Subpart and Subpart D, E, F, G, H, or M of this Part must operate such unit in a manner consistent with good air pollution control practice to minimize NO_x emissions." Mot. Amend 1 at 3. The Agency had originally included this language in the proposed subsection 217.152(b) regarding the compliance date. Prop. at 27; *see* Tr.1 at 196-98 (suggesting relocation under applicability provisions).

Section 217.152: Compliance Date. The Agency sought to add a new section regarding the compliance date for its proposed rule. Statement at 17; *see* Prop. at 27. The proposed subsection (a) originally provided "that compliance with the requirements of Subparts D, E, F, G, H, and M by an owner or operator of an emission unit that is subject to any one of those subparts is required beginning May 1, 2010." Statement at 17; *see* Prop. at 27.

Proposed subsection (b) originally provided "that the first annual compliance period is May 1, 2010, through April 30, 2011, and then on a calendar years basis thereafter." Statement at 17; *see* Prop. at 27. Subsection (b) also originally provided that "the owner or operator of an emission unit that is subject to Subpart D, E, F, G, H, or M must operate such unit in a manner consistent with good air pollution control practice to minimize NO_x emissions." Statement at 17; *see* Prop. at 27.

In a question filed for the first hearing on October 14, 2008, Midwest Generation asked how the second sentence of subsection (b), regarding air pollution control practices, related to the proposed compliance date. MG Questions at 3. Responding, the Agency simply stated that "[t]here is no relation." MG Answers at 3; *see* Tr.1 at 196-98 (suggesting relocation under applicability provisions). In post-hearing comments, the Agency agreed "that it may be more appropriate to place this sentence in another section. . . . PC 1 at 4.

In comments filed for the second hearing beginning December 9, 2008, Saint-Gobain argued that "a narrow exception should be made to the May 1, 2010 compliance date for entities that enter into an enforceable agreement with IEPA to install control technology that can achieve NO_x emission rates significantly below the 5.0 lbs/ton limit pursuant to an enforceable schedule extending beyond 2010." PC 4 at 1. Saint-Gobain states that it "is currently in the process of negotiating such an agreement with IEPA." *Id.* Saint-Gobain specifically proposed that Section 217.152 include a new subsection providing in its entirety that,

> [n]otwithstanding subsections (a), (b), and (c) of this Section, compliance with the requirements of Subpart F of this Part by an owner or operator of an emission unit subject to Subpart F of this Part shall be extended until December 31, 2014, if such units are required to meet emissions limitations for NO_x, as measured using a continuous emissions monitoring system, and included within a legally enforceable order on or before December 31, 2009, whereby such emissions limitations are less than 30 percent of the emissions limitations set forth under Section 217.204 of Subpart F of this Part. *Id*. at 2.

Saint-Gobain supported its proposed language by stating that it

> cannot afford to install the technology required to meet an interim limit of 5.0 lbs/ton for the period between the compliance date under Section 217.204 and the anticipated schedule for installation of the alternative technology at the end of 2014, and thus the opportunity for substantially greater long-term emission reductions may be lost if a limited exemption from the May 1, 2010 compliance date is not adopted. *Id*. at 1.

Saint-Gobain also argued that early installation of CEMS would require significantly greater expense than later installation with the alternative technology and "would serve no compliance purpose." *Id*. at 2.

Participants doubted that sources could achieve compliance by the Agency's proposed compliance deadline and proposed alternative compliance schedules. *E.g.*, Exh. 5 at 15-16 (IERG). Exh. 6 at 12-15 (IERG), Exh. 9 at 3-6 (ConocoPhillips), Exh. 10 at 7-8 (U.S. Steel). In the first motion to amend its rulemaking proposal, the Agency proposed to amend subsection (a) to provide in its entirety that "[c]ompliance with the requirements of Subparts D, E, F, G, H, and M by an owner or operator of an emission unit that is subject to Subpart D, E, F, G, H, or M is required beginning January 1, 2012." Mot. Amend 1 at 2, 3.

The first motion to amend also sought to amend subsection (b) to provide in its entirety that

> [n]otwithstanding subsection (a) of this Section, compliance with the requirements of Subpart F of this Part by an owner or operator of an emission unit subject to Subpart F of this Part shall be extended until December 31, 2014, if such units are required to meet emissions limitations for NO_x, as measured using a

> continuous emissions monitoring system, and included within a legally enforceable order on or before December 31, 2009, whereby such emissions limitations are less than 30 percent of the emissions limitations set forth under Section 217.204 of Subpart F of this Part. Mot. Amend 2 at 2, 3.

In the second motion to amend its proposal, the Agency sought to add a subsection (c) providing in its entirety that,

> [n]otwithstanding subsection (a) of this Section, the owner or operator of emission units subject to Subpart D or E of this Part and located at a petroleum refinery must comply with the requirements of this Subpart and Subpart D or E of this Part, as applicable, for those emission units beginning January 1, 2012, except that the owner or operator of emission units listed in Appendix H must comply with the requirements of this Subpart, including the option of demonstrating compliance with the applicable Subpart through an emissions averaging plan under Section 217.158 of this Subpart, and Subpart D or E of this Part, as applicable, for the listed emission units beginning on the dates set forth in Appendix H. With Agency approval, the owner or operator of emission units listed in Appendix H may elect to comply with the requirements of this Subpart and Subpart D or E of this Part, as applicable, by reducing the emissions of emission units other than those listed in Appendix H, provided that the emissions limitations of such other emission units are equal to or more stringent than the applicable emissions limitations set forth in Subpart D or E of this Part, as applicable, by the dates set forth in Appendix H. Mot. Amend 2 at 2, 6-7; *see* Mot. Amend 2 at 13-14 (proposed Appendix H).

Section 217.154: Performance Testing. The Agency sought to add a new section regarding performance testing requirements for units subject to Subparts D, E, F, G, or H. Statement at 18-19; *see* Prop. at 27-28. Proposed subsection (a) originally provided "that such testing for emission units constructed on or before December 1, 2009, and subject to one of those subparts must be conducted in accordance with Section 217.157." Statement at 18; *see* Prop. at 27. Subsection (a) also provided an exception from this requirement for owners and operators demonstrating compliance through CEMS. Statement at 18; *see* Prop. at 27.

Proposed subsection (b) provided that "performance testing of NO_x emissions for emission units constructed or modified after December 1, 2009, and subject to one of those subparts must be conducted within 60 days of achieving maximum operating rate but no later than 180 days after initial startup of the new or modified emission units, in accordance with Section 217.157." Statement at 18; *see* Prop. at 27. Subsection (b) also provided an exception for owners and operators demonstrating compliance through CEMS. Statement at 18; *see* Prop. at 28.

In a question filed for the first hearing on October 14, 2008, IERG noted that subsection (a) and (b) "refer to the date of emission unit construction or modification" and asked the Agency to clarify the meaning of the terms "constructed on or before" and "construction or modification occurs after." IERG Questions at 16-17. Specifically, IERG asked whether the

Agency refers to "the beginning of construction, the completion of construction, [or] the date of issuance of a construction permit?" *Id.*

In its response, the Agency first noted that definitions in Parts 201 and 211 apply to Part 217. IERG Answers at 9; *see* 35 Ill. Adm. Code 201, 211, 217.103. The Agency further noted that Section 201.102 defines "construction" as "commencement of on-site fabrication, erection or installation of an emission source or of air pollution control equipment." IERG Answers at 9, citing 35 Ill. Adm. Code 201.102. The Agency also notes that it defines "modification" as

> any physical change in, or change in the method of operations, of an emission source or of air pollution control equipment which increases the amount of any specified air contaminant emitted by such source or equipment or which results in the emission of any specified air contaminant not previously emitted. It shall be presumed that an increase in the use of raw materials, the time of operation or the rate of production will change the amount of any specified air contaminant emitted. Notwithstanding any other provisions of this definition, for purposes of permits issued pursuant to Subpart D, the Illinois Environmental Agency (Agency) may specify conditions under which an emission source or air pollution control equipment may be operated without causing a modification as herein defined, and normal cyclical variations, before the date operating permits are required, shall not be considered modifications. IERG Answers at 9, citing 35 Ill. Adm. Code 201.102.

The Agency suggests that these definitions determine what constitutes the beginning or the completion of construction. IERG Answers at 9.

In its first motion to amend its proposal, the Agency sought to replace subsection (a) with the following language:

> [p]erformance testing of NO_x emissions for emission units constructed on or before July 1, 2011, and subject to Subpart D, E, F, G, or H of this Part must be conducted in accordance with Section 217.157 of this Subpart. This subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emissions monitoring system. Mot. Amend 1 at 3.

In its first notice comment, the Agency proposed to clarify subsection (a) by adding "references to 'emission limitations under' an applicable Subpart and to add the exclusion for a 'predictive emission monitoring system, or combustions tuning.'" PC 17 at 2. Specifically, the Agency proposed the following language:

> [p]erformance testing of NO_x emissions for emission units constructed on or before July 1, 2011, and subject to emissions limitations under Subpart E, F, G, H, or I of this Part must be conducted in accordance with Section 217.157 of this Subpart. Except as provided for under Section 217.157(a)(4) and (e)(1), this subsection does not apply to owners and operators of emission units

> demonstrating compliance through a continuous emission monitoring system, predictive emission monitoring system, or combustion tuning. PC 17 at 2-3.

Also in the first motion to amend, the Agency sought to replace subsection (b) with the following language:

> [p]erformance testing of NO_x emissions for emission units for which construction or modification occurs after July1, 2011, and that are subject to Subpart D, E, F, G, or H of this Part must be conducted within 60 days of achieving maximum operating rate but no later than 180 days after initial startup of the new or modified emission unit, in accordance with Section 217.157 of this Subpart. This subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emissions monitoring system. Mot. Amend 1 at 3.

In its first notice comment, the Agency proposed to clarify subsection (b) by adding "references to 'emission limitations under' an applicable Subpart and to add the exclusion for a 'predictive emission monitoring system, or combustions tuning.'" PC 17 at 2. Specifically, the Agency proposed the following language:

> [p]erformance testing of NO_x emissions for emission units for which construction or modification occurs after July 1, 2011, and subject to emissions limitations under Subpart E, F, G, H, or I of this Part must be conducted within 0 days of achieving maximum operating rate but no later than 180 days after initial startup of the new or modified emission unit, in accordance with Section 217.157 of this Subpart. Except as provided for under Section 217.157(a)(4) and (e)(1), this subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emission monitoring system, predictive emission monitoring system, or combustion tuning. PC 17 at 2-3.

Proposed subsection (c) provides that notification of initial startup of a unit subject to subsection (b) "must be provided to the Agency no later than 30 days after initial startup." Statement at 18; *see* Prop. at 28. Proposed subsection (d) provides that the owner or operator of a unit subject to subsection (a) or (b) "must notify the Agency of the scheduled date for the performance testing at least 30 days in writing before such date and five days before such date." Statement at 18; *see* Prop. at 28.

Proposed subsection (e) provides that, "if demonstrating compliance through a emissions averaging plan, at least 30 days before changing the method of compliance, the owner or operator of an emission unit must submit a written notification to the Agency describing the new method of compliance, the reason for the change in the method of compliance, and the scheduled date for the compliance demonstration testing, if required." Statement at 18-19; *see* Prop. at 28. Subsection (e) also provides that an owner or operator changing the method of compliance "must submit to the Agency a revised compliance certification that meets the requirements of Section 217.155." Statement at 19; *see* Prop. at 28.

Section 217.155: Initial Compliance Certification. The Agency sought to add a new section regarding initial compliance certification for units subject to Subpart D, E, F, G, H, or M. Statement at 19-20: *see* Prop. at 28-29. As originally proposed, subsection (a) provided that, by May 1, 2010, the owner or operator of a unit subject to Subpart D, E, F, G, H, or M who does not demonstrate compliance with CEMS "must certify to the Agency that the emission unit will be in compliance with the applicable emissions limitation of Subpart D, E, F, G, or H of Part 217 beginning May 1, 2010." Statement at 19; *see* Prop. at 28. The subsection also provided that "certification must include the results of the performance testing performed in accordance with Sections 217.154(a) and (b) of Subpart C and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance." Statement at 19; *see* Prop. at 28.

In the first motion to amend its rulemaking proposal, the Agency sought to replace subsection (a) with the following language:

> [b]y the applicable compliance date set forth under Section 217.152 of this Subpart, an owner or operator of an emission unit subject to Subpart D, E, F, G, or H of this Part who is not demonstrating compliance through the use of a continuous emissions monitoring system must certify to the Agency that the emission unit will be in compliance with the applicable emissions limitation of Subpart D, E, F, G, or H of this Part beginning on such applicable compliance date. The performance testing certification must include the results of the performance testing performed in accordance with Sections 217.154(a) and (b) of this Subpart and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance. Mot. Amend 1 at 4.

As originally proposed, subsection (b) provided that, by May 1, 2010, the owner or operator of a unit subject to Subpart D, E, F, G, H, or M who is demonstrating compliance with CEMS "must certify to the Agency that the affected emission units will be in compliance with the applicable emissions limitation of Subpart D, E, F, G, or H of Part 217 beginning May 1, 2010." Statement at 19; *see* Prop. at 28. The subsection also provided that "[s]uch compliance certification must include a certification of the installation and operation of a continuous emissions monitoring system required under Sections 217.157 of Subpart C and the monitoring data necessary to demonstrate that the subject emission unit will be in initial compliance." Statement at 19-20; *see* Prop. at 28-29.

In the first motion to amend its rulemaking proposal, the Agency sought to replace subsection (b) with the following language:

> [b]y the applicable compliance date set forth under Section 217.152 of this Subpart, an owner or operator of an emission unit subject to Subpart D, E, F, G, H, or M of this Part who is demonstrating compliance through the use of a continuous emissions monitoring system must certify to the Agency that the affected emission units will be in compliance with the applicable emissions limitation of Subpart D, E, F, G, H, or M of this Part beginning on such applicable compliance date. The compliance certification must include a certification of the installation and operation of a continuous emissions monitoring system required

under Section 217.157 of this Subpart and the monitoring data necessary to demonstrate that the subject emission unit will be in initial compliance. Mot. Amend 1 at 4; *see also* PC 2 at 1 (proposing extension of compliance deadline for CEMS).

Section 217.156: Recordkeeping and Reporting. The Agency sought to add a new section regarding recordkeeping and reporting by owners or operators of sources subject to Subpart D, E, F, G, H, or M. Statement at 20-23: *see* Prop. at 29-32. The proposed subsection (a) provided that such owners or operators "must keep and maintain all records used to demonstrate initial compliance and ongoing compliance with the requirements of these Subparts." Statement at 20; *see* Prop. at 29. The subsection also provided that, "except as otherwise provided under those Subparts, copies of such records must be submitted by the owner or operator of the source to the Agency within 30 days after receipt of a written request by the Agency, and such records must be kept at the source and maintained for at least five years and must be available for inspection and copying by the Agency." Statement at 20; *see* Prop. at 29 (proposed subsections (a)(1) and (a)(2)).

Proposed subsection (b) provided that the owner or operator of a unit subject to Subpart D, E, F, G, H, or M must maintain records, including eleven specific items, demonstrating compliance with the applicable subpart. Statement at 20-21; *see* Prop. at 29-30. Specifically, subsection (b)(8) requires that records include "[a] log of all maintenance and inspections related to the unit's air pollution control equipment for NO_x that it performed on the unit." Prop. at 30; *see* Statement at 20-21. Also, subsection (b)(9) requires that records include "[a] log for the NO_x monitoring device, if present, including periods when not in service and maintenance and inspection activities that are performed on the device." Prop. at 30; *see* Statement at 21.

In a question filed for the first hearing on October 14, 2008, Midwest Generation asked whether "the recordkeeping systems that sources already have in place comprise the 'logs' required at Sections 217.156(b)(8) and (9), assuming all of the information required by the rule is included?" MG Questions at 2. The Agency responded that they do comprise the required logs, "as long as all of the required information under the rule is included." MG Answers at 3.

Proposed subsection (c) provided in its entirety that "[t]he owner or operator of an industrial boiler subject to Subpart D of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.166 of this Part." Prop. at 30; *see* Statement at 21. Proposed subsection (d) provided in its entirety that "[t]he owner or operator of a process heater subject to Subpart E of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.186 of this Part." Prop. at 30; *see* Statement at 21. Proposed subsection (e) provided in its entirety that "[t]he owner or operator of an emission unit subject to Subpart D, E, F, G, H, or M of this Part must maintain records in order to demonstrate compliance with the testing and monitoring requirements under Section 217.157 of this Subpart." Prop. at 30; *see* Statement at 21.

Proposed subsection (f) provided that an owner or operator of a unit subject to Subparts D, E, F, G, or H must provide four specific submissions with respect to performance testing under Section 217.157(a)(4) and (b)(2). Prop. at 30-31; *see* Statement at 21-22. In the second

motion to amend its rulemaking proposal, the Agency sought to amend subsection (f) to provide that recordkeeping and reporting, as they pertain to performance testing, applies "to all performance testing conducted under Section 217.157 and not just certain testing as under the original proposal." Mot. Amend 2 at 2; *see* Prop. at 30-31.

Proposed subsection (g) provided that "the owner or operator of an emission unit subject to Subpart D, E, F, G, H, or M must notify the Agency of any exceedances of an applicable emissions limitation of Subpart D, E, F, G, H, or M by sending the applicable report with an explanation of the causes of such exceedances to the Agency within 30 days following the end of the applicable compliance period in which the emissions limitation was not met." Statement at 22; *see* Prop. at 31. In a question filed for the first hearing on October 14, 2008, Midwest Generation asked what constitutes the "applicable compliance period." MG Questions at 2. The Agency responded that that period is "[t]he annual or ozone season compliance period." MG Answers at 3.

Proposed subsection (h) provided that, "within 30 days of a written request by the Agency, the owner or operator of an emission unit that is exempt from the requirements of Subpart D, E, F, G, H, or M must submit records that document that the emission unit is exempt from those requirements to the Agency." Statement at 22; *see* Prop. at 31. Proposed subsection (i) provided that an owner or operator complying through an emissions averaging plan must submit by March 1 following the applicable calendar year a report demonstrating four specific items. Prop. at 31; *see* Statement at 22. Proposed subsection (j) provided that an owner or operator complying through the use of CEMS must submit to the Agency within 30 days after the end of each calendar quarter a report including two specified items of information. Prop. at 32; *see* Statement at 23.

Proposed subsection (k) provided that "the owner or operator of an emission unit subject to Subpart M must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 C.F.R. 96, or an alternate procedure approved by the Agency and USEPA." Statement at 23; *see* Prop. at 32. In a question filed for the first hearing on October 14, 2008, Midwest Generation asked whether subsection (k) "supersede[s] the other recordkeeping and reporting requirements of Section 217.156?" MG Questions at 2. Responding, the Agency stated that its "intent is that electric generating units subject to Subpart M comply with the compliance certifications, recordkeeping, and reporting requirements pursuant to 40 C.F.R. 96, in conjunction with the other recordkeeping and reporting requirements under Section 217.156, to the extent the requirements are not duplicative." MG Answers at 4.

Section 217.157: Testing and Monitoring. The Agency sought to add a new section regarding testing and monitoring by owners or operators of sources subject to Subpart D, E, F, G, H, or M. Statement at 20-27: *see* Prop. at 32-37. The proposed subsection (a) "includes the provisions applicable to owners and operators of industrial boilers subject to Subpart D and process heaters subject to Subpart E." Statement at 23; *see* Prop. at 32-34.

Proposed subsection (a)(1) provided that "the owner or operator of an industrial boiler subject to Subpart D with a rated heat input capacity greater than 250 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on the emission unit

for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 C.F.R. Part 75." Statement at 23; *see* Prop. at 32.

Proposed subsection (a)(2) provided that

> the owner or operator of an industrial boiler subject to Subpart D with a rated heat input capacity greater than 100 mmBtu/hr but less than or equal to 250 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 C.F.R. Part 60, Subpart A, and Appendix B, Performance Specifications 2 and 3, and Appendix F, Quality Assurance Procedures. Statement at 24; *see* Prop. at 32-33.

Proposed subsection (a)(3) provided that

> the owner or operator of a process heater subject to Subpart E with a rated heat input capacity greater than 100 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 C.F.R. Part 60, Subpart A, and Appendix B, Performance Specifications 2 and 3, and Appendix F, Quality Assurance Procedures. Statement at 24; *see* Prop. at 33.

In testimony filed on behalf of ConocoPhillips for the second hearing on December 9, 2008, Mr. Dunn noted that the Agency's proposal requiring installation of CEMS on any industrial boiler or process heater over 100 mmBtu/hr would result in total estimated costs of $12 million. Exh. 9 at 14-15. Mr. Dunn recommended that the Agency limit CEMS requirements to units greater than 250 mmBtu/hr. *Id*. at 15. He also expressed the view that "annual performance testing is sufficient for process heaters that are included in an averaging plan." *Id*. In post-hearing comments filed on March 23, 2009, ConocoPhillips noted that these issues remained outstanding concerns with the Agency. PC 14 at 2-3.

Proposed subsection (a)(4) provided that, "if demonstrating compliance through an emissions averaging plan, the owner or operator of an industrial boiler subject to Subpart D, or a process heater subject to Subpart E, with a rated heat input capacity less than or equal to 100 mmBtu/hr and not demonstrating compliance through a continuous emission monitoring system must have an initial performance test." Statement at 24; *see* Prop. at 33. Proposed subsection (a)(4)(A) estabisheed the timing for the required subsequent performance tests. Statement at 24; *see* Prop. at 33. Proposed subsection (a)(4)(B) originally established other requirements for these tests. Statement at 24; *see* Prop. at 33-34. In the first motion to amend its rulemaking proposal, the Agency proposed to replace that language with the following:

> [t]he owner or operator of an industrial boiler or process heater must have a performance test conducted using 40 CFR Part 60, Subpart A, and Appendix A, Method 1, 2, 3, 4, 7E, or 19, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. Each

> performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the industrial boiler is operating at maximum operating capacity or while the process heater is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted with Agency approval on such combination of fuels typically used. Except as provided under subsection (e) of this Section, this subsection (a)(4)(B) of this Section does not apply if such owner or operator is demonstrating compliance with an emissions limitation through a continuous emissions monitoring system under subsection (a)(1), (a)(2), (a)(3), or (a)(5)) of this Section. Mot. Amend 1 at 4-5.

Proposed subsection (a)(5) provided that, instead of complying with subsection (a)(4), (a)(4)(A), and (a)(4)(B), "an owner or operator of an industrial boiler subject to Subpart D of this Part, or a process heater subject to Subpart E of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr may install and operate a continuous emissions monitoring system that meets the applicable requirements of 40 C.F.R. Part 60, Subpart A, and Appendix B, Performance Specifications 2 and 3, and Appendix F, Quality Assurance Procedures." Statement at 25; *see* Prop. at 34. The proposed subsection further provided that the CEMS "must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis." Statement at 25; *see* Prop. at 34.

Proposed subsection (a)(6) provided that, notwithstanding subsection (a)(2), the owner or operator of an auxiliary boiler subject to Subpart D "with a rated heat input capacity less than or equal to 250 mmBtu/hr and a capacity factor of less than or equal to 20% is not required to install, calibrate, maintain, and operate a continuous emissions monitoring system on such boiler for the measurement of NO_x emissions discharged into the atmosphere, but must comply with the performance test requirements under subsections (a)(4), (a)(4)(A), and (a)(4)(B) of this Section." Statement at 25; *see* Prop. at 34.

The proposed subsection (b) included provisions applicable to owners and operators of glass melting furnaces subject to Subpart F, cement and lime kilns subject to Subpart G, iron and steel reheat, annealing, or galvanizing furnaces subject to Subpart H, and aluminum reverberatory and crucible furnaces subject to Subpart H. Statement at 25; *see* Prop. at 34. Proposed subsection (b)(1) provided that

> an owner or operator of such an emission unit that has the potential to emit NO_x in an amount equal to or greater than one ton per day must install, calibrate, maintain, and operate a continuous emissions monitoring system on each such emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 C.F.R. Part 60, Subpart A, and Appendix B, Performance Specifications 2 and 3, and Appendix F, Quality Assurance Procedures. Statement at 25-26; *see* Prop. at 34-35.

Proposed subsection (b)(2) provided that "an owner or operator of a glass melting furnace, cement kiln or lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory and crucible furnace that has the potential to emit NO_x in an amount less than one ton per day must have an initial performance test conducted" pursuant to subsection (b)(4) and Section 217.154. Statement at 26; *see* Prop. at 35. Proposed subsection (b)(3) establisheed the timing for the required subsequent performance tests. Statement at 26; *see* Prop. at 35.

Proposed subsection (b)(4) originally established methods and requirements for those performance tests. Statement at 26; *see* Prop. at 36. In comments filed on January 20, 2009, Saint-Gobain proposed to amend that language by adding a sentence providing that, if a unit demonstrates compliance with NO_x limitations by CEMS under subsection (b)(1), then this subsection (b)(4) does not apply. PC 4 at 1. In the first motion to amend its rulemaking proposal, the Agency proposed to replace that language with the following:

> The owner or operator of a glass melting furnace, cement kiln, or lime kiln must have a performance test conducted using 40 CFR Part 60, Subpart A, and Appendix A, Methods 1. 2, 3, 4, and 7E, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. The owner or operator of an iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace must have a performance test conducted using 40 CFR Part 60, Subpart A, and Appendix A, Method 1, 2, 3, 4, 7E, or 19, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace is operating at maximum operating capacity. If the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. Except as provided under subsection (e) of this Section, this subsection (b)(4) of this Section does not apply if such owner or operator is demonstrating compliance with an emissions limitation through a continuous emissions monitoring system under subsection (b)(1) or (b)(5) of this Section. Mot. Amend 1 at 5; *see infra* at 57 (noting proposed addition of subsection (e)); *see also* PC 4 at 1 (Saint-Gobain pre-hearing proposal).

Proposed subsection (b)(5) provided that, instead of complying with subsections (b)(2), (b)(3), and (b)(4),

> an owner or operator of a glass melting furnace, cement kiln or lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory and crucible furnace that has the potential to emit NO_x in an amount less than one ton per day may install and operate a continuous emissions operating system on such

> emission unit that meets the applicable requirements of 40 C.F.R. Part 60, Subpart A, and Appendix B, Performance Specifications 2 and 3, and Appendix F, Quality Assurance Procedures. Statement at 26; *see* Prop. at 36.

The proposed subsection also provides that the CEMS "must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis." Statement at 26; *see* Prop. at 36.

Proposed subsection (c) provided in its entirety that "[t]he owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a continuous emissions monitoring system on such emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 C.F.R. Part 96, Subpart H." Prop. at 36; *see* Statement at 27.

Proposed subsection (d) provided in its entirety that,

> [i]f two or more emission units subject to Subpart D, E, F, G, H, M, or Q of this Part are served by a common stack and the owner or operator of such emission units is operating a continuous emissions monitoring system, the owner or operator may, with written approval from the Agency, utilize a single continuous emissions monitoring system for the combination of emission units subject to Subpart D, E, F, G, H, M, or Q of this Part that share the common stack, provided such emission units are subject to an emissions averaging plan under this Part. Prop. at 37; *see* Statement at 27.

In its first motion to amend its rulemaking proposal, the Agency proposed to add a subsection (e) to extend the deadline for the installation of CEMS. Mot. Amend 1 at 5; *see* Exh. 6 at 21 (urging additional time for installation), Exh. 9 (supporting three-year extension for installation). In its second motion to amend, the Agency proposed to amend subsection (e) to allow additional time for installation of CEMS. Mot. Amend 2 at 2, 7-8. The Agency also proposed to add a subsection (f) allowing "for a predictive emission monitoring system, in accordance with 40 C.F.R. Part 60, Subpart A, and Appendix B, Performance Specification 16, as an alternative to the CEMS requirements for the owners or operators of certain emission units who are not otherwise required by any other statute, regulation, or enforceable order to install a CEMS on an emission unit." Mot. Amend 2 at 2-3, 7-8.

Section 217.158: Emissions Averaging Plans. The Agency sought to add a new section regarding emissions averaging plans. Statement at 27-29: *see* Prop. at 37-41. Generally, "[s]ources may aggregate and then average the NO_x emissions from units at the same location in Illinois to comply with the emissions limitations. . . ." Kaleel Pre-filed Test. at 3. Specifically, proposed subsection (a) provided that, "[n]otwithstanding any other emissions averaging plan provisions under this Part, an owner or operator of a source with certain emission units subject to Subpart D, E, F, G, H, or M of this Part, or subject to Subpart Q of this Part that are located in either one of the areas set forth under Section 217.150(a)(1)(A) or (B) of this Subpart, may demonstrate compliance with the applicable Subpart through an emissions averaging plan." Prop. at 37; *see* Statement at 27.

In its first notice comments, the Agency proposed to correct the reference to "Section 217.150(a)(1)(A) or (B)" to read as "Section 217.150(a)(1)(A)(i) or (ii)." PC 17 at 3; *see* 33 Ill. Reg. 6941 (May 22, 2009) (reorganizing proposed Section 217.150).

The proposed subsection also provided that "[a]n emissions averaging plan can only address emission units that are located at one source and each unit may only be covered by one emissions averaging plan." Prop. at 37; *see* Statement at 27, Tr.1 at 180. In a question filed for the first hearing on October 14, 2008, Midwest Generation asked whether the Agency intended to preclude "a unit that is in an averaging plan under this rule from participating in averaging plans under other rules and *vice versa*." MG Questions at 1. The Agency responded that it intends "that an emission unit be included in only one seasonal and one annual averaging plan. Units affected by Subpart Q (Engine Rule) can be included in an averaging plan with units affected by this proposal." MG Answers at 2; *see* Tr.1 at 181. Finally, the proposed subsection also provides that "[s]uch emission units at the source are affected units and are subject to the requirements of this Section." Prop. at 37; *see* Statement at 27.

Proposed subsection (a)(1) described units that may be included in an emissions averaging plan. Statement at 27; *see* Prop. at 37. First, under subsection (a)(1)(A), a plan may include "[u]nits that commenced operation on or before January 1, 2002." Prop. at 37; *see* Statement at 27. In a question filed for the first hearing on October 14, 2008, ExxonMobil asked how the Agency set that date as a cutoff. ExxonMobil Questions at 4-5; *see* IERG Questions at 4. The Agency responded that "USEPA has established 2002 as the base year for planning purposes for implementation of the ozone and $PM_{2.5}$ NAAQS established in 1997. States are required to demonstrate continued progress towards attainment beginning in that year. The Illinois EPA is seeking emission reductions from emission units that were in existence in 2002." ExxonMobil Answers at 5. The Agency acknowledged that new units may, under various requirements, "have installed NO_x control measures that are equal to or more stringent than the proposed emission limitations here." *Id*. at 6. The Agency stated, however, that "[i]f such units were included in an averaging plan with units that existed in 2002, then the existing units may not need to reduce emissions. This is counter to the objective of achieving Reasonable Further Progress between 2002 and the attainment year, 2010. *Id*.; *see* IERG Answers at 8.

Under proposed subsection (a)(1)(B), a plan may include "[u]nits that the owner or operator may claim as exempt under Subpart D, E, F, G, H, or M, as applicable, but does not claim as exempt." Statement at 27-28; *see* Prop. at 37. The proposed subsection also provided that, "[f]or as long as such a unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, and testing, monitoring, recordkeeping, and reporting requirements." Prop. at 37.

Under proposed subsection (a)(1)(C), a plan may include "[u]nits that commence operation after January 1, 2002, if the unit replaces a unit that commenced operation on or before January 1, 2002, or it replaces a unit that replaced a unit that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose as the replacement unit." Prop. at 37; *see* Statement at 28. In response to a question by IERG filed for the first hearing, the Agency stated that, "[f]or the purpose of emissions averaging under this proposal, a replacement

unit must be *essentially* the same as the unit it replaces." IERG Answers at 8 (emphasis added); *see* Tr.1 at 80-83. In its second motion to amend its rulemaking proposal, the Agency proposed to replace its original language with a new subsection (a)(1)(C) clarifying the replacement units that may be included in an averaging plan. The Agency explained that

> [t]he new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO_x emissions on an annual basis than the actual NO_x emissions of the unit or units that are replaced. In addition, within 90 days after permanently shutting down a unit that is replaced, the owner or operator of such unit must submit a written request to withdraw or amend the applicable permit to reflect that the unit is no longer in service before the replacement unit may be included in the emissions averaging plan" Mot. Amend 2 at 3, 8-9.

Proposed subsection (a)(2) described units that may not be included in an emissions averaging plan. Statement at 27; *see* Prop. at 37. First, under proposed subsection (a)(2)(A), a plan may not include "[u]nits that commence operation after January 1, 2002, except as provided by subsection (a)(1)(C) of this Section." Prop. at 38; *see* Statement at 28, *supra* (discussing subsection (a)(1)(C)). Under proposed subsection (a)(2)(B), a plan may not include "[u]nits that the owner or operator is claiming are exempt pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.432 of this Part, as applicable." Prop. at 38; *see* Statement at 28. Also, under proposed subsection (a)(2)(C), the Agency originally proposed that plans may not include "[u]nits that are required to meet emission limits for NO_x as provided for in an enforceable order, unless such order specifically provides for operation pursuant to an emissions averaging plan." Prop. at 28; *see* Statement at 28. In its second motion to amend its rulemaking proposal, the Agency proposed to amend this subsection to provide that plans may not include

> [u]nits that are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order, unless such order allows for emissions averaging. Nothing in this subparagraph (C) is intended to prohibit a petroleum refinery from including industrial boilers or process heaters, or both, in an emissions averaging plan where an enforceable order does not prohibit the reductions made under such order from also being used for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area. Mot. Amend 2 at 3, 9.

In its first notice comments, the Agency proposed to amend subsection (a)(2)(C) as follows:

> [u]nits that are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order, unless such order allows for emissions averaging. In the case of petroleum refineries, this subsection does not prohibit including industrial boilers or process heaters, or both, in an emissions averaging plan where an enforceable order does not prohibit the reductions made under such order from also being used for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area. PC 17 at 3.

Proposed subsection (b) provided that

> an owner or operator must submit an emissions averaging plan to the Agency by May 1, 2010, and such plan must include, but is not limited to, the list of affected units included in the plan by unit identification number and a sample calculation demonstrating compliance using the methodology provided in subsection (f) of this Section for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31). Statement at 28; *see* Prop. at 38.

In its first motion to amend its rulemaking proposal, the Agency sought to extend the deadline to submit an averaging plan to the Agency to January 1, 2012. Mot. Amend 1 at 6. In a question filed for the first hearing on October 14, 2008, Midwest Generation asked whether a source may decide after the deadline for submitting a plan that it wishes to perform averaging. MG Questions at 3. The Agency responded that "[a]veraging plans can be amended once per year at the discretion of the owner/operator." MG Answers at 4. The Agency elaborated that a unit that had not submitted an averaging plan before the initial deadline can be included in averaging at a later date. *Id*.

Subsection (c), as originally proposed by the Agency, provided in its entirety that "[a]n owner or operator may amend an emission plan only once per calendar year. Such an amended plan must be submitted to the Agency by May 1 of the applicable calendar year. If an amended plan is not received by the Agency by May 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan." Prop. at 38; *see* Statement at 28. In its first motion to amend its rulemaking proposal, the Agency proposed to amend this subsection by changing the May 1 submission deadlines to January 1. Mot. Amend 1 at 6.

Proposed subsection (d) provided that, notwithstanding subsection (c),

> 1) If a unit that is listed in an emissions averaging plan is taken out of service, the owner or operator must submit to the Agency, within 30 days of such occurrence, an updated emissions averaging plan; or
>
> 2) If a unit that is exempt from the requirements of Subpart E, F, G, H, I, or M, as applicable, no longer qualifies for an exemption, the owner or operator may amend its existing averaging plan to include such unit within 30 days of the unit no longer qualifying for the exemption. *See* Statement at 28-29; Prop. at 38-39.

Proposed subsection (e) provided that the owner or operator must demonstrate compliance for both the ozone season and the calendar year by using the methodology and the units included in the most recent averaging plan submitted to the Agency, "the higher of the monitoring data or test data determined pursuant to Section 217.157," and "the actual hours of operation for the applicable averaging plan period." Statement at 29; *see* Prop. at 39. The proposed subsection also provided that the owner or operator must "submit to the Agency by

March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i)." Statement at 29; *see* Prop. at 39.

Proposed subsection (f) "provides that the total mass of actual NO_x emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_x emissions for those units for both the ozone season and calendar year." Statement at 29; *see* Prop. at 39. The proposed subsection also includes the equation with which to determine compliance. Prop. at 39-41.

Proposed subsection (g) provided that

> the owner or operator of an emission unit subject to Subpart Q of this Part that is located in either one of the areas set forth under Section 217.150(a)(1)(A) or (B) of this Subpart that is complying through an emissions averaging plan under this Section must comply with the applicable provisions for determining actual and allowable emissions under Section 217.390 of Subpart Q, the testing and monitoring requirements under Section 217.394 of Subpart Q, and the recordkeeping and reporting requirements under Section 217.396 of Subpart Q. Statement at 29; *see* Prop. at 41.

In its first notice comments, the Agency proposed to correct the reference to "Section 217.150(a)(1)(A) or (B)" to read as "Section 217.150(a)(1)(A)(i) or (ii)." PC 17 at 3; *see* 33 Ill. Reg. 6941 (May 22, 2009) (reorganizing proposed Section 217.150).

In its second motion to amend its rulemaking proposal, the Agency sought to add a subsection (h). Mot. Amend 2 at 3-4, 9. That proposed new subsection provides in its entirety that

> [t]he owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the emission unit for the maintenance turnaround and the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround. Mot. Amend 2 at 9.

Also in its second motion to amend its rulemaking proposal, the Agency sought to add a subsection (i). Mot. Amend 2 at 4, 9. That proposed new subsection provides in its entirety that

> [t]he owner or operator of an emission unit that combusts a combination of coke oven gas and other gaseous fuels and located at a source that manufactures iron and steel who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation

> demonstrating compliance those time periods when the coke oven gas desulfurization unit included in the emissions averaging plan is shut down for maintenance, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the coke oven gas desulfurization unit for maintenance and such shutdown does not exceed 35 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance period. Mot. Amend 2 at 9.

In its first notice comments, the Agency proposed to add a subsection (j) reading as follows:

> [t]he owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when NO_x pollution control equipment that controls one or more emission units included in the emissions averaging plan is shut down for a maintenance turnaround, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the NO_x pollution control equipment for the maintenance turnaround and the shutdown of the NO_x pollution control equipment does not exceed 45 days per ozone season or calendar year, and except for those emission units vented to the NO_x pollution control equipment undergoing the maintenance turnaround, NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround. PC 17 at 3.

Subpart E: Industrial Boilers

Section 217.160: Applicability. The Agency sought to add a new section addressing applicability of its proposal to industrial boilers. Prop. at 41-42. Proposed subsection (a) provided that "the provisions of Subparts C and D apply to all industrial boilers located at sources subject to Subpart D pursuant to Section 217.150." Statement at 30; *see* Prop. at 42; *see also supra* at 44-46 (addressing applicability of general requirements). The Agency stated that there are 12 industrial boilers subject to the NO_x SIP Call affected by this proposal and an additional 68 industrial boilers less than 250 mmBtu that are not subject to the NO_x SIP Call. TSD at 130, Statement at 10; *see* MG Answers at 8.

In a question filed for the first hearing on October 14, 2008, Midwest Generation claimed that "[t]he 'all industrial boilers' language in Section 217.160(a) and similar language in the other subparts could be construed to expand the scope of Section 217.150(a)(2), which refers to 'any industrial boiler [and other types of emission units] that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 41-42. Midwest Generation questions whether the Agency intends "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responds by expressing the intent "that each Subpart apply to all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

Proposed subsection (b) provided that "the provisions of Subpart D do not apply to boilers serving a generator that has a nameplate capacity of 25 MWe or less and produces electricity for sale, and cogeneration units, as that term is defined in Section 225.130 of Part 225, if such boilers or cogeneration units are subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225." Statement at 30; *see* Prop. at 42.

In a question filed for the first hearing on October 14, 2008, Midwest Generation stated that, "[b]ased upon the proposed applicability language in Subpart M, Section 217.340, [and] assuming the D.C. Circuit Court issues the mandate implementing its decision in the appeal of the CAIR, EGUs would be subject to the provisions of Subpart D." MG Questions at 3-4. Midwest Generation consequently asked whether the Agency would consider amending subsection (b) as follows: "[t]he provisions of this Subpart do not apply to boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, and cogeneration units, as that term is defined in Section 225.230 of Part 225~~, if such boilers or cogeneration units are subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225~~." *Id.* at 4.

Responding to Midwest Generation, the Agency stated that it was "amenable" to amending its proposed definition in the following fashion: "[t]he provisions of this Subpart do not apply to boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, ~~and cogeneration units, as that term is defined in Section 225.130 of Part 225,~~ if such boilers ~~or cogeneration units are subject to~~ meet the applicability criteria under Subpart M of Part 217 ~~the CAIR NO_x Trading Programs under Subpart D or E of Part 225~~. MG Answers at 4-6.

In its first motion to amend its rulemaking proposal, the Agency recommended that the Board "[a]mend Section 217.160 by amending subsection (b) to reflect the provisions as previously agreed to between the Illinois EPA and Midwest Generation as reflected in the Illinois EPA's Answers to Midwest Generation's Questions for Agency Witnesses, filed September 30, 2008, and the October 14, 2008, hearing." Mot. Amend 1 at 6; *see* MG Question at 3-4, MG Answers at 4-6.

In its post-hearing comments, Midwest Generation stated that,

> [w]ith the amendments proposed to the Board by the Agency in its Motion to Amend Rulemaking Proposal ("Agency's Motion") filed January 30, 2009, Midwest Generation generally supports the Agency's proposal as it applies to electric generating units ("EGUs"). The proposed amendments incorporate by reference provisions agreed to between the Agency and Midwest Generation as part of the Agency's Answers to Midwest Generation's Questions for Agency Witnesses ("Agency's Answers"), which were filed before this Board on September 30, 2008. PC 9 at 1-2 (noting Agency's proposed amendment of Section 217.160); *see* Mot. Amend 1 at 6, Tr.1 at 199-200.

In its first notice comments, the Agency proposed to amend subsection (b) "by striking the references to 'cogeneration units' and adding reference to boilers that 'meet the applicability criteria under Subpart M of Part 217.'" PC 17 at 4, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 45-46 (May 7, 2009). Specifically, the Agency proposed language providing that "[t]he provisions of this Subpart do not apply to boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, if such boilers meet the applicability criteria under Subpart M of Part 217." PC 17 at 4.

Proposed subsection (c) provided that "the provisions of Subpart D do not apply to fluidized catalytic cracking units, their regenerator and associated CO boiler or boilers and CO furnace or furnaces where present, that commenced operation prior to January 1, 2008, if such units are located at a petroleum refinery and such units are required to meet emission limits for NO_x as provided for in an enforceable order." Statement at 30-31; *see* Prop. at 42.

In its first motion to amend its rulemaking proposal, the Agency sought to amend subsection (c) to provide that

> [t]he provisions of this Subpart do not apply to fluidized catalytic cracking units, their regenerator and associated CO boiler or boilers and CO furnace or furnaces where present, that commenced operation prior to January 1, 2008, if such units are located at a petroleum refinery and such units are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order. Mot. Amend 1 at 6

In its second motion to amend, the Agency proposed to remove the January 1, 2008, date for commencement of operation "in the non-applicability provisions pertaining to certain fluidized bed catalytic cracking units located at a petroleum refinery." Mot. Amend 2 at 5, 9-10.

Section 217.162: Exemptions. The Agency proposed to add a new section addressing exemptions, which provides in its entirety that, "[n]otwithstanding Section 217.160 of this Subpart, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season." Prop. at 42; *see* Statement at 31, Kaleel Pre-filed Test. at 3.

Section 217.164: Emissions Limitations. The Agency proposed to add a new section addressing emission limitations from industrial boilers. Statement at 31; Prop. at 42-43; *see generally* TSD at 5-44 (Industrial Boilers and Electric Generating Unit Boilers). Originally, the Agency proposed that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any industrial boiler to exceed the limitations set forth under this Section." Statement at 31; *see* Prop. at 42-43. The Agency proposed specific limitations or requirements based first on the unit's fuel and then on its rated heat input capacity. Prop. at 42-43 (proposed subsections (a) through (d)). The Agency also proposed that "[c]ompliance must

be demonstrated with the applicable emissions limitations on an ozone season and annual basis." Prop. at 42; *see* Statement at 31.

In its first motion to amend its rulemaking proposal, the Agency proposed to amend the first sentence of Section 217.164 by extending the compliance deadline to January 1, 2012. Mot. Amend 1 at 6. In its first notice comment, the Agency proposed to amend the first paragraph of Section 217.164 to read as follows:

> [e]xcept as provided for under Section 217.152, on and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any industrial boiler to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitations on an ozone season and annual basis. PC 17 at 4.

In a question filed for the first hearing on October 14, 2008, Midwest Generation asked the Agency to state the "basis for establishing a rate of 0.008 lb/mmBtu rate for gas-fired industrial boilers greater than 100 mmBtu." MG Questions at 3. The Agency responded that its TSD establishes this basis. MG Answers at 4, citing TSD at 43 (Table 2-17a: Cost Effectiveness Data for Natural Gas-Fired ICI Boilers).

In testimony on behalf of U.S. Steel for the second hearing, Mr. Siebenberger stated that the Agency's proposed emission limit of 0.08 lbs/MMBtu for industrial boilers greater than 100 MMBtu/hr relying on natural gas or other gaseous fuels does not take into account the "unique characteristics" of specific U.S. Steel boilers. Exh. 10 at 6. Those unique characteristics "include the combustion of a varying fuel mix of desulfurized or non-desulfurized coke oven gas in combination with blast furnace gas and natural gas." *Id*. U.S Steel proposed alternate emissions limits both for its Boilers 11 and 12 and for its reheat furnaces. *Id*. at 6, 7; *see* Tr.1 at 102-03 (addressing Agency consideration of coke oven gas fuel).

In testimony filed on behalf of IERG for the second hearing, Mr. Kolaz argued that the difference in emissions between the Agency's original proposal and IERG's alternate proposal is "relatively small." Exh. 6 at 22. Mr. Kolaz further argued that IERG's proposed emission limit of 0.12 lbs/mmBtu for industrial boilers greater than 100 MMBtu/hr relying on natural gas or other gaseous fuels is "more practically achievable." *Id*. at 23; *see id*. at Exhs. 1, 2. Mr. Kolaz also questioned the Agency's proposed compliance date on grounds including the practical ability of sources to implement these requirements. *Id.* at 12-15.

In testimony filed on behalf of ConocoPhillips for the second hearing, Mr. Dunn stated that the Agency's proposed emission limit of 0.08 lb/MMBtu for industrial boilers greater than 100 MMBtu/hr relying on natural gas or other gaseous fuels is "overly stringent." Exh. 9 at 6. ConocoPhillips recommended an emission limit of 0.12 lb/MMBtu, as recommended by IERG. *Id*. at 9. ConocoPhillips further argued that the Agency's compliance deadline is "not achievable." *Id.*

In post-hearing comments filed January 20, 2009, ConocoPhillips again addressed the emission limitation of 0.08 lb/mmBtu for gas-fired boilers greater than 100 mmBtu/hr. PC 5 at

3-4. ConocoPhillips argued that the proposed limit "is overly stringent for typical industrial boilers when burning refinery fuel gas" and "does not adequately consider the economic consequences" of installing the controls that comply with it. *Id*. at 3-4.

In the second motion to amend, the Agency proposed to change the emissions limitation for an industrial boiler, circulating fluidized bed combustor, with a rated heat input capacity greater than 100 mmBtu/hr from 0.10 lb/mmBtu to 0.12 lb/mmBtu. Mot. Amend 2 at 4. The Agency states that, "[d]uring discussions with affected parties, emissions information from an existing source with such a unit was provided to Illinois EPA, and such information necessitated a modification of the emissions limitation." *Id*. at 4, 10. Also in the second motion to amend, the Agency proposed to add in a new subsection (e) a formula establishing "an emissions limitation to be calculated for an industrial boiler combusting a combination of natural gas, coke oven gas, and blast furnace gas under Subpart D." *Id*. at 4, 11.

In its first notice comments, the Agency proposed a correction to the equation in subsection (e). PC 17 at 4, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 98 (May 7, 2009); *see also* PC 19 at 6 (proposing correction in U.S. Steel first notice comments).

Section 217.165: Combination of Fuels. The Agency proposed to add a new section addressing combination of fuels, which provides in its entirety that "[t]he owner or operator of an industrial boiler subject to this Subpart and operated with any combination of fuels must comply with a heat input weighted average emissions limitation to demonstrate compliance with Section 217.164 of this Subpart." Prop. at 43; *see* Statement at 31; *see also supra* at 64-66 (discussing proposed Section 217.164).

Section 217.166: Methods and Procedures for Combustion Tuning. The Agency proposed to add a new section addressing combustion tuning. Prop. at 44. The proposed section first provided that "the owner or operator of an industrial boiler subject to the combustion tuning requirements of Section 217.164 must have combustion tuning performed at least annually." Statement at 31; *see* Prop. at 44. It also provided that "the combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of boilers firing the fuel or fuels that are fired in the boiler." Statement at 31; *see* Prop. at 44. Finally, the proposed section also sought to require that the owner or operator maintain combustion tuning records containing five specific items and make those records available to the Agency upon request. Statement at 31-32; *see* Prop. at 44 (proposed subsections (1) through (5)).

Subpart F: Process Heaters

Section 217.180: Applicability. The Agency proposed to add a section addressing applicability and providing in its entirety that "[t]he provisions of Subpart C of this Part and this Subpart apply to all process heaters located at sources subject to this Subpart pursuant to Section 217.150 of this Part." Prop. at 44; *see* Statement at 32, *supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 46-65 (Process Heaters).

In a question filed for the first hearing on October 14, 2008, Midwest Generation suggested that the "all process heaters" language in Section 217.160(a) could be construed to expand the scope of Section 217.150(a)(2), which refers to "any . . . process heater . . . that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 26 (proposed Section 217.150(a)(2)). Midwest Generation questioned whether the Agency intended "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responded by expressing the intent "that each Subpart apply to all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

Section 217.182: Exemptions. The Agency proposed to add a section addressing exemptions and providing in its entirety that, "[n]otwithstanding Section 217.180 of this Section, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of NO_x emissions from such heater to less than 15 tons per year and less than five tons per ozone season." Prop. at 45; *see* Statement at 33, Kaleel Pre-filed Test. at 3.

In testimony filed on behalf of IERG for the second hearing, Mr. Kolaz stated that "most of the process heaters affected by this rule are located at petroleum refineries," which "cannot make changes to their process heaters without planning the work to occur during maintenance turnarounds." Exh. 6. at 23. He further stated that "it appears that the Agency used the emission reductions from the USEPA refinery consent decrees for the attainment modeling conducted by LADCO." *Id*. at 24. He proposed that "the Agency consider the reductions from the federally enforceable consent decrees to constitute RACT for these facilities." *Id*. He identified this section as language that might be modified to adopt this proposed amendment. *Id*.

Section 217.184: Emissions Limitations. The Agency proposed to add a new section addressing emission limitations from process heaters. Statement at 33; Prop. at 45-46; *see generally* TSD at 46-65 (Process Heaters). Originally, the Agency proposed that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any process heater" to exceed specified limitations. Prop. at 45; *see* Statement at 33. The Agency proposed specific limitations or requirements based first on the unit's fuel and then on its rated heat input capacity in mmBtu/hr. Prop. at 45-46 (proposed subsections (a), (b), and (c)). The Agency also proposed that "[c]ompliance must be demonstrated with the applicable emissions limitations on an ozone season and annual basis." Prop. at 45; *see* Statement at 33.

In its first motion to amend its rulemaking proposal, the Agency proposed to amend the first sentence of Section 217.184 by extending the compliance deadline to January 1, 2012. Mot. Amend 1 at 7. In its first notice comments, the Agency proposed to amend the first paragraph of Section 217.184 to read as follows:

> [e]xcept as provided for under Section 217.152, on and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any process heater to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitations on an ozone season and annual basis. PC 17 at 4.

In testimony filed on behalf of ConocoPhillips for the second hearing, Mr. Dunn stated that the Agency's proposed emission limit of 0.07 lb/MMBtu for process heaters greater than 100 MMBtu/hr relying on gaseous fuels is "too stringent for typical process heaters" and requires "control technology that is well beyond RACT." Exh. 9 at 9. He further stated that ConocoPhillips "agrees with IERG's suggestions that the NO_x emission limit of process heaters be set at 0.12 lb NO_x/MMBtu." *Id*. at 12. ConocoPhillips further argued that the Agency's compliance deadline is "not achievable." *Id.*

In the second motion to amend, the Agency proposed to amend "the emissions limitation for a process heater with a rated heat input capacity greater than 100 mmBtu/hr combusting natural gas or other gaseous fuels" from 0.07 lb/mmBtu to 0.08 lb/mmBtu. Mot. Amend 2 at 5, 11-12.

Section 217.185: Combination of Fuels. The Agency proposed to add a new section addressing combination of fuels, which provides in its entirety that "[t]he owner or operator of a process heater subject to this Subpart and operated with any combination of fuels must comply with a heat input weighted average emissions limitation to demonstrate compliance with Section 217.184 of this Subpart." Prop. at 46; *see* Statement at 33; *see also supra* at 67-68 (discussing proposed Section 217.184).

Section 217.186: Methods and Procedures for Combustion Tuning. The Agency proposed to add a new section addressing combustion tuning of process heaters. Prop. at 46-47. The proposed section first provided that "the owner or operator of a process heater subject to the combustion tuning requirements of Section 217.184 must have combustion tuning performed on the heater at least annually." Statement at 33; *see* Prop. at 44. The proposed section also provided that "[t]he combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of heaters firing the fuel or fuels that are fired in the heater." Statement at 33; *see* Prop. at 46. Finally, the proposed section also sought to require that the owner or operator maintain combustion tuning records containing five specific items and make those records available to the Agency upon request. Statement at 33-34; *see* Prop. at 46 (proposed subsections (1) through (5)).

Subpart G: Glass Melting Furnaces

Section 217.200: Applicability. The Agency proposed to add a section addressing applicability and providing in its entirety that "[t]he provisions of Subpart C of this Part and this Subpart apply to all glass melting furnaces located at sources subject to this Subpart pursuant to Section 217.150 of this Part." Prop. at 47; *see* Statement at 34, *supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 102-17 (Glass Melting Furnaces).

In a question filed for the first hearing on October 14, 2008, Midwest Generation suggested that the "all glass melting furnaces" language in Section 217.200 could be construed to expand the scope of Section 217.150(a)(2), which refers to "any . . . glass melting furnace . . . that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 26 (proposed Section

217.150(a)(2)). Midwest Generation questioned whether the Agency intended "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responded by expressing the intent "that each Subpart apply to all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

Section 217.202: Exemptions. The Agency proposed to add a section addressing exemptions and providing in its entirety that, "[n]otwithstanding Section 217.200 of this Section, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season." Prop. at 47; *see* Statement at 35, Kaleel Pre-filed Test. at 3.

In a post-hearing comment filed November 25, 2008, Saint-Gobain expressed the belief that "a narrow exception should be made to the May 1, 2010 compliance date for entities that enter into an enforceable agreement with IEPA to install control technology that can achieve NO_x emission rates significantly below the 5.0 lbs/ton limit pursuant to an enforceable schedule extending beyond 2010. PC 2 at 1. As Saint-Gobain was negotiating such an agreement, it proposed the following addition to this exemptions section:

> [n]otwithstanding the compliance date set forth in Section 217.155(b) and 217.204, a compliance date of December 31 2014, shall apply when the owner or operator of a container glass melting furnace subject to Subpart F has executed a binding and enforceable agreement by December 31, 2009 with the State of Illinois that requires compliance with a NO_x limit that is less than 30 percent of the emission limit in Section 217.204. *Id*.; *but see* Mot. Amend. 1 at 3 (incorporating substance of proposed language into Section 217.152(b)).

Section 217.204: Emissions Limitations. The Agency proposed to add a new section addressing emission limitations for glass melting furnaces. Statement at 35; Prop. at 47; *see generally* TSD at 102-17 (Glass Melting Furnaces). Originally, the Agency proposed that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any glass melting furnace" to exceed specified limitations. Prop. at 47; *see* Statement at 35. The Agency proposed specific limitations based on the unit's product type as container glass, flat glass, or other glass. Prop. at 47 (proposed subsections (a), (b), and (c)). The Agency also proposed that "[c]ompliance must be demonstrated with the emissions limitations on an ozone season and annual basis." Prop. at 47; *see* Statement at 35.

In a post-hearing comment filed November 25, 2008, Saint-Gobain expressed the belief that "a narrow exception should be made to the May 1, 2010 compliance date for entities that enter into an enforceable agreement with IEPA to install control technology that can achieve NO_x emission rates significantly below the 5.0 lbs/ton limit pursuant to an enforceable schedule extending beyond 2010. PC 2 at 1. Noting that it was negotiating such an agreement, Saint-Gobain argued that it "cannot afford to install the technology required to meet an interim limit of 5.0 lb/ton for the period between the compliance date under Section 217.204 and the anticipated schedule for installation of alternative technology at the end of 2014." *Id*.; *see* Tr.2 at 13-16 (addressing negotiation of consent decree). Saint-Gobain also referred to the cost of installing CEMS devices. *See* PC 2 at 1-2.

In a pre-hearing comment filed January 20, 2009, Saint-Gobain proposed to add to Section 217.202 language providing that "Section 217.204 shall not apply during glass furnace startup (not to exceed 70 days) or idling (operation at less than 35% of furnace capacity)." PC 4 at 2. Saint-Gobain also proposed a formula with which to determine a NO_x emission limit applicable to those startup and idling periods. *See id*.

In its first motion to amend its rulemaking proposal, the Agency proposed to amend the first sentence of Section 217.204 by extending the compliance deadline to January 1, 2012. Mot. Amend 1 at 7. The Agency also proposed to add a subsection providing in part that "[t]he emissions limitations under this Section do not apply during glass melting furnace startup (not to exceed 70 days) or idling (operation at less than 35% of furnace capacity)." *Id*. The Agency's proposed new subsection also included a formula for determining NO_x emissions limitations during startup and idle periods. *Id*.

In its first notice comments, the Agency proposed, "due to the special characteristics of glass melting furnaces and further discussions with Saint-Gobain Containers, Inc." to amend subsection (b) as follows:

> [t]he emissions during glass melting furnace startup (not to exceed 70 days) or furnace idling (operation at less than 35% of furnace capacity) shall be excluded from calculations for the purpose of demonstrating compliance with the seasonal and annual emissions limitations under this Section, provided that such owner or operator, at all times, including periods of startup and idling, to the extent practicable, maintain and operate any affected emission unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The owner or operator of a glass melting furnace must maintain records that include the date, time, and duration of any startup or idling in the operation of such glass melting furnace. PC 17 at 4-5.

Subpart H: Cement and Lime Kilns

Section 217.220: Applicability. The Agency proposed to add a section addressing applicability to cement and lime kilns. Prop. at 48; *see* Statement at 35-36. Proposed subsection (a) provided in its entirety that, "[n]otwithstanding Subpart T of this Part, the provisions of Subpart C of this Part and this Subpart apply to all cement kilns located at sources subject to this Subpart pursuant to Section 217.150 of this Part." Prop. at 48; *see* Statement at 35-36; *supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 66-85 (Cement Kilns). Proposed subsection (b) provided in its entirety that "[t]he provisions of Subpart C of this Part and this Subpart apply to all lime kilns located at sources subject to this Subpart pursuant to Section 217.150 of this Part. Prop. at 48; *see* Statement at 35-36; *see supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 86-91 (Lime Kilns).

In a question filed for the first hearing on October 14, 2008, Midwest Generation suggested that the "all cement kilns" and "all lime kilns" language in Section 217.220 could be construed to expand the scope of Section 217.150(a)(2), which refers to "any . . . cement kiln [or]

lime kiln . . . that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 26 (proposed Section 217.150(a)(2)). Midwest Generation questioned whether the Agency intended "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responded by expressing the intent "that each Subpart apply to all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

In another question filed for the first hearing on October 14, 2008, Midwest Generation asked why, if there are no cement kilns in the nonattainment areas, cement kilns are included in the rulemaking. MG Questions at 1; *see also* IERG Questions at 4. The Agency responded by stating that "[t]here are no cement kilns in the current NAAs, although there is a cement kiln in Massac County, which USEPA intends to designate as nonattainment for the 24-hour $PM_{2.5}$ NAAQS." MG Answers at 2, citing *id*., Attachment 1 (USEPA review of air quality designations); *see also* IERG Answers at 6, citing TSD at 66 (noting that none of eight Illinois cement kilns are situated in nonattainment areas), Tr.1 at 57-62.

In his testimony on behalf of the Agency at the first hearing on October 14, 2008, Mr. Kaleel noted that the Agency had initially drafted these proposed regulations to have statewide applicability and that there are cement kilns situated in the state's attainment areas. Tr.1 at 61. He also noted that, under the revised ozone and $PM_{2.5}$ standards, "there may be some adjustments necessary to the non-attainment areas." *Id*. Mr. Kaleel also argued that the Agency has already performed the engineering and cost analysis in support of these proposed rules. *Id*. at 62. Although he acknowledged that a change in the boundaries of the nonattainment areas would require changing the regulation, including cement kilns "would send a clear message to units that potentially become non-attainment in the future that they would know what their target is, what it is they have to meet." *Id*.

In testimony filed on behalf of IERG for the second hearing on December 9, 2008, Mr. Kolaz argued that, because no cement kilns exist in the nonattainment areas, cement kilns should not be included in the Agency's proposed regulations. Exh. 6 at 19, 24. He further argued that "[a]ny new facility with such a unit in the applicable areas would be subject to controls stricter than RACT." *Id*. at 19. He also argued that, "[i]f new nonattainment areas are identified in Illinois, this proposed rule would need to be amended to incorporate those areas if NO_x reductions are deemed necessary and appropriate to address the air quality conditions." *Id*.; *see* Tr.1 at 57-60.

Section 217.222: Exemptions. The Agency proposed to add a section addressing exemptions and providing in its entirety that, "[n]otwithstanding Section 217.220 of this Subpart, the provisions of this Subpart do not apply to a cement kiln or lime kiln operating under a federally enforceable limit of NO_x emissions from such kiln to less than 15 tons per year and less than five tons per ozone season." Prop. at 48; *see* Statement at 36, Kaleel Pre-filed Test. at 3.

Section 217.224: Emissions Limitations. The Agency proposed to add a new section addressing emission limitations from cement kilns and lime kilns. Statement at 36; Prop. at 48-49. Originally, the Agency proposed in subsection (a) that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any cement kiln" to

exceed specified limitations. Prop. at 48; *see* Statement at 36. The Agency proposed specific limitations based on the unit's type. Prop. at 48 (proposed subsections (a)(1) through (a)(4)). The Agency also proposed in subsection (b) that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any lime kiln" to exceed specified limitations. Prop. at 49; *see* Statement at 36. The Agency also proposed that "[c]ompliance must be demonstrated with the emissions limitations on an ozone season and annual basis." Prop. at 48; *see* Statement at 36.

In its first motion to amend its rulemaking proposal, the Agency proposed to amend the first sentence of subsections (a) and (b) by extending the compliance deadline to January 1, 2012. Mot. Amend 1 at 8.

Subpart I: Iron and Steel and Aluminum Manufacturing

Section 217.240: Applicability. The Agency proposed to add a section addressing applicability to iron and steel and aluminum manufacturing. Prop. at 49; *see* Statement at 36-37. Proposed subsection (a) provided in its entirety that "[t]he provisions of Subpart C of this Part and this Subpart apply to all reheat furnaces, annealing furnaces, and galvanizing furnaces used in iron and steel making located at sources subject to this Subpart pursuant to Section 217.150 of this Part." Prop. at 49; *see* Statement at 36-37; *supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 92-101 (Reheat, Annealing, and Galvanizing Furnaces at Iron/Steel plants). Proposed subsection (b) provided in its entirety that "[t]he provisions of Subpart C of this Part and this Subpart apply to all reverberatory furnaces and crucible furnaces used in aluminum melting located at sources subject to this Subpart pursuant to Section 217.150 of this Part. Prop. at 49; *see* Statement at 36-37; *see supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 118-25 (Aluminum Melting Furnaces).

In a question filed for the first hearing on October 14, 2008, Midwest Generation suggested that the "all reheat furnaces, annealing furnaces, and galvanizing furnaces used in iron and steel making" and "all aluminum reverberatory furnaces and crucible furnaces used in aluminum melting" language in Section 217.240 could be construed to expand the scope of Section 217.150(a)(2), which refers to "any . . . iron and steel reheat, annealing, or galvanizing furnace, [or] aluminum reverberatory or crucible furnace . . . that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 26 (proposed Section 217.150(a)(2)). Midwest Generation questioned whether the Agency intended "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responded by expressing the intent "that each Subpart apply to all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

In another question filed for the first hearing on October 14, 2008, Midwest Generation asked why, if there are no aluminum melting furnaces affected by the proposal, the rule includes that sector. MG Questions at 1; *see also* IERG Questions at 4. The Agency responded by stating that "[t]here is an aluminum melting furnace in the Chicago non-attainment area (NAA), although it has not operated for several years. To the best of our knowledge, the emission unit

has not been torn down, so it is possible that the company, or a future owner, will seek to operate the furnace in the future." MG Answers at 1-2; *see* Tr.1 at 60-61; *see also* IERG Answers at 6.

In testimony filed on behalf of IERG for the second hearing on December 9, 2008, Mr. Kolaz argued that, because no aluminum reverberatory or crucible furnaces exist in the nonattainment areas, they should not be included in the Agency's proposed regulations. Exh. 6 at 19, 24, citing Tr.1 at 60-61. He further argued that "[a]ny new facility with such a unit in the applicable areas would be subject to controls stricter than RACT." Exh. 6 at 19. He also argued that, "[i]f new nonattainment areas are identified in Illinois, this proposed rule would need to be amended to incorporate those areas if NO_x reductions are deemed necessary and appropriate to address the air quality conditions." *Id*.; *see* Tr.1 at 57-60.

Section 217.242: Exemptions. The Agency proposed to add a section addressing exemptions and providing in its entirety that, "[n]otwithstanding Section 217.240 of this Subpart, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or crucible furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season." Prop. at 49; *see* Statement at 36, Kaleel Pre-filed Test. at 3.

Section 217.244: Emissions Limitations. The Agency proposed to add a new section addressing emission limitations for iron and steel and aluminum manufacturing. Statement at 36-37; Prop. at 50-51. Originally, the Agency proposed in subsection (a) that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any reheat furnace, annealing furnace, or galvanizing furnace use in iron and steel making" to exceed specified limitations. Prop. at 50; *see* Statement at 37. The Agency proposed specific emissions limitations based on the unit's type. Prop. at 50 (proposed subsections (a)(1) through (a)(9)). The Agency also proposed in subsection (b) that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any reverberatory furnace or crucible furnace used in aluminum melting" to exceed specified limitations. Prop. at 50; *see* Statement at 37. The Agency also proposed with regard to both subsections that "[c]ompliance must be demonstrated with the emissions limitations on an ozone season and annual basis." Prop. at 50; *see* Statement at 37.

In its first motion to amend its rulemaking proposal, the Agency proposed to amend the first sentence of subsections (a) and (b) by extending the compliance deadline to January 1, 2012. Mot. Amend 1 at 8-9. In its second motion to amend the proposal, the Agency proposed to change the emissions limitation for a recuperative reheat furnace combusting natural gas from 0.05 lb/mmBtu to 0.09 lb/mmBtu. Mot. Amend 2 at 5, 12. The Agency also proposed to add an emissions limitation of 0.142 lb/mmBtu for a recuperative reheat furnace combusting a combination of natural gas and coke oven gas. *Id*.

In its first notice comments, the Agency proposed to amend the first two sentences subsection (b) as follows:

> [o]n and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any reverberatory furnace or crucible furnace use in aluminum melting to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitations on an ozone season and annual basis. PC 17 at 5.

The Agency also proposed clarifying the emissions limitations in subsection (b)(1) and (b)(2). *Id*., citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 105 (May 7, 2009).

Subpart M: Electrical Generating Units

Section 217.340: Applicability. The Agency proposed to add a section addressing applicability to EGUs, which provides in its entirety that, "[n]otwithstanding Subpart V or W of this Part, the provisions of Subpart C of this Part and this Subpart apply to all fossil fuel-fired stationary boilers subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225 located at sources subject to this Subpart pursuant to Section 217.150 of this Part." Prop. at 51; *see* Statement at 37-38; *supra* at 44-46 (discussing Section 217.150); *see generally* TSD at 5-45 (Industrial Boilers and Electrical Generating Unit Boilers).

In a question filed for the first hearing on October 14, 2008, Midwest Generation suggested that the "all fossil fuel-fired stationary boilers" language in Section 217.340 could be construed to expand the scope of Section 217.150(a)(2), which refers to "any . . . fossil fuel-fired stationary boiler . . . that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season." MG Questions at 2; *see* Prop. at 26 (proposed Section 217.150(a)(2)). Midwest Generation questioned whether the Agency intended "to expand the applicability of the rule in this way." MG Questions at 2. The Agency responded by expressing the intent "that each Subpart apply to all of the affected emission units at an affected source, *e.g.*, 'any' emission unit that meets the applicability criteria." MG Answers at 3.

In another question filed for the first hearing, Midwest Generation noted that "[t]he TSD claims there are a total of 18 EGUs subject to the rule, while the Statement of Reasons says there are 20 'fossil fuel-fired stationary boilers' subject to the rule." MG Questions at 4. Midwest Generation asked whether there are "fossil fuel-fired stationary boilers that are not EGUs that are subject to the rule?" *Id*. The Agency responded that "there are 20 EGU boilers," clarifying that "there are two instances in which one unit is comprised of two boilers." MG Answers at 8, citing TSD at Appendices – 27 (Table E-1).

In another question filed for the first hearing, Midwest Generation stated that, "[b]ased upon the proposed applicability language in Subpart M, Section 217.340, [and] assuming the D.C. Circuit Court issues the mandate implementing its decision in the appeal of the CAIR, EGUs would be subject to the provisions of Subpart D." MG Questions at 3. Midwest Generation consequently asked whether the Agency would consider amending this provision as follows:

> [n]otwithstanding Subpart V or W of this Part, the provisions of Subpart C of this Part and this Subpart apply to ~~all fossil fuel-fired stationary boilers subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225~~ any fossil fuel-fired stationary boiler serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, excluding any units listed in Appendix D of this Part, located at sources subject to this Subpart pursuant to Section 217.150 of this Part. *Id*.

Responding to Midwest Generation, the Agency stated that it was "amenable" to amending its proposed definition in the following fashion:

> [n]otwithstanding Subpart V or W of this Part, the provisions of Subpart C of this Part and this Subpart apply to ~~all fossil fuel-fired stationary boilers subject to the CAIR NO_x Trading Programs under Subpart D or E of Part 225~~ any fossil fuel-fired stationary boiler serving at any time a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, excluding any units listed in Appendix D of this Part, located at sources subject to this Subpart pursuant to Section 217.150 of this Part. MG Answers at 4-5; *see* Exh. 12 at 2-3 (Encouraging adoption of amended language).

In its first motion to amend its rulemaking proposal, the Agency recommended that the Board "[a]mend Section 217.340 to reflect the provisions as previously agreed to between the Illinois EPA and Midwest Generation as reflected in the Illinois EPA's Answers to Midwest Generation's Questions for Agency Witnesses, filed September 30, 2008, and the October 14, 2008, hearing." Mot. Amend 1 at 9; *see* MG Question at 3, MG Answers at 4-5.

In its post-hearing comments, Midwest Generation stated that,

> [w]ith the amendments proposed to the Board by the Agency in its Motion to Amend Rulemaking Proposal ("Agency's Motion") filed January 30, 2009, Midwest Generation generally supports the Agency's proposal as it applies to electric generating units ("EGUs"). The proposed amendments incorporate by reference provisions agreed to between the Agency and Midwest Generation as part of the Agency's Answers to Midwest Generation's Questions for Agency Witnesses ("Agency's Answers"), which were filed before this Board on September 30, 2008. PC 9 at 1-2 (noting Agency's proposed amendment of Section 217.340); *see* Mot. Amend 1 at 9, Tr.1 at 199-200.

In testimony filed for the second hearing on December 9, 2008, Mr. Kolaz argued that "the CAIR rule should be considered RACT for EGUs" and that "Subpart M is unnecessary for purposes of achieving the Agency's stated goals of achieving RACT level reductions." Exh. 6 at 25; *see* Tr.2 at 80-81. Midwest Generation concurred that Subpart M "is not necessary and should be deleted from the rule." Tr.3 at 58 (Miller testimony).

In its first notice comments, the Agency proposed to amend Section 217.340 "by adding reference to and 'fossil' fuel-fired stationary boilers serving 'at any time' a generator," reading as follows:

> [n]otwithstanding Subpart V or W of the Part, the provisions of Subpart D of this Part and this Subpart apply to any fossil fuel-fired stationary boiler serving at any time a generator that has a nameplate capacity greater than 25MWe and produces electricity for sale, excluding any units listed in Appendix D of this Part, located at sources subject to this Subpart pursuant to Section 217.150. PC 17 at 5, citing In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R08-19, slip op. at 55-56 (May 7, 2009).

Section 217.342: Exemptions. The Agency proposed to add a section addressing exemptions. The proposed subsection (a) provided in its entirety that, "[n]otwithstanding Section 217.340 of this Subpart, the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season." Prop. at 51; *see* Statement at 38, Kaleel Pre-filed Test. at 3. Proposed subsection (b) provided in its entirety that, "[n]owithstanding Section 217.340 of this Subpart, the provisions of this Subpart do not apply to a coal-fired stationary boiler that commenced operation before January 1, 2008, that is complying with the multi-pollutant standard under Section 225.233 of Part 225 or the combined pollutant standards under Subpart F of Part 225." Prop. at 51; *see* Statement at 38.

In a question filed for the first hearing on October 14, 2008, Midwest Generation stated that, "[b]ased upon the proposed applicability language in Subpart M, Section 217.340, [and] assuming the D.C. Circuit Court issues the mandate implementing its decision in the appeal of the CAIR, EGUs would be subject to the provisions of Subpart D." MG Questions at 3. Midwest Generation consequently asked whether the Agency would consider amending subsection (b) of this provision as follows: "[n]otwithstanding section 217.340 of this Subpart, the provisions of this Subpart do not apply to a coal-fired stationary boiler that commenced operation before January 1, 2008, that is complying with Part 225.Subpart B through the multi-pollutant standard under Section 225.233 of Part 225 or the combined pollutant standards under Subpart F of Part 225." *Id.* Responding to Midwest Generation, the Agency stated that it was "amenable" to amending subsection (b) in that fashion. MG Answers at 4-6.

In its post-hearing comments, Midwest Generation states that,

> [w]ith the amendments proposed to the Board by the Agency in its Motion to Amend Rulemaking Proposal ("Agency's Motion") filed January 30, 2009, Midwest Generation generally supports the Agency's proposal as it applies to electric generating units ("EGUs"). The proposed amendments incorporate by reference provisions agreed to between the Agency and Midwest Generation as part of the Agency's Answers to Midwest Generation's Questions for Agency Witnesses ("Agency's Answers"), which were filed before this Board on

September 30, 2008. PC 9 at 1-2 (noting Agency's proposed amendment of Section 217.340); *see* Mot. Amend 1 at 10, Tr.1 at 199-200.

In its first notice comments, the Agency proposed, in light of the Board's recent rulemaking addressing mercury monitoring, to amend subsection (b) to read as follows: "[n]otwithstanding Section 217.340, the provisions of this Subpart do not apply to a coal-fired stationary boiler that commenced operation before January 1, 2008, that is complying with Part 225.Subpart B through the multi-pollutant standard or the combined pollutant standard." PC 17 at 5; *see* In the Matter of: Amendments to 35 Ill. Adm. Code 225: Control of Emissions from Large Combustion Sources (Mercury Monitoring), R09-10.

Section 217.344: Emissions Limitations. The Agency proposed to add a new section addressing emission limitations for EGUs. Statement at 38-39; Prop. at 51-52. Originally, the Agency proposed that, "[o]n and after May 1, 2010, no person shall cause or allow emissions of NO_x into the atmosphere from any fossil fuel-fired stationary boiler" to exceed specified limitations. Prop. at 50; *see* Statement at 37. The Agency proposed specific emissions limitations based on the unit's type. Prop. at 52 (proposed subsections (a), (b), and (c)). The Agency also proposed that "[c]ompliance must be demonstrated with the emissions limitations on an ozone season and annual basis." Prop. at 51; *see* Statement at 39.

In its first motion to amend its rulemaking proposal, the Agency proposed to amend the first sentence of Section 217.344 by extending the compliance deadline to January 1, 2012. Mot. Amend 1 at 10. The Agency also proposed to change the emissions limitation for a boiler combusting solid fuel from 0.09 lb/mmBtu to 0.012 lb/mmBtu. *Id*.; *see* MG Answers at 6-8 (providing basis for determining 0.09 lb/mmBtu constitutes RACT)

Section 217.345: Combination of Fuels. The Agency proposed to add a new section addressing combination of fuels, which provides in its entirety that "[t]he owner or operator of a fossil fuel-fired stationary boiler subject to this Subpart and operated with any combination of fuels must comply with a heat input weighted average emissions limitation to demonstrate compliance with Section 217.344 of this Subpart." Prop. at 52; *see* Statement at 39.

Appendix H

In the second motion to amend its rulemaking proposal, the Agency proposes to add an Appendix H "to set forth the compliance dates for certain emission units at petroleum refineries." Mot. Amend 2 at 5, 13-14.

In its first notice comments, the Agency proposed corrections to the tables comprising Appendix H. PC 17 at 6; *see* PC 16 at 14 (suggesting corrections to Appendix H in IERG comment).

ORDER

The Board directs the Clerk to file the following proposed amendments with the Joint Committee on Administrative Rules for second-notice review. Proposed additions are underlined, and proposed deletions appear stricken.

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

SUBPART B: DEFINITIONS

Section

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
211.665 Auxiliary Boiler
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
211.740 Brakehorsepower (rated-bhp)
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
211.953 Carbon Adsorber
211.955 Cement
211.960 Cement Kiln
211.970 Certified Investigation
211.980 Chemical Manufacturing Process Unit
211.990 Choke Loading
211.995 Circulating Fluidized Bed Combustor
211.1010 Clean Air Act
211.1050 Cleaning and Separating Operation
211.1070 Cleaning Materials
211.1090 Clear Coating
211.1110 Clear Topcoat

211.1120 Clinker
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
211.1315 Combustion Tuning
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
211.1435 Container Glass
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
211.1740 Diesel Engine
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 Interference (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
211.2355 Flare
211.2357 Flat Glass
211.2360 Flexible Coating
211.2365 Flexible Operation 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
211.2625 Glass Melting Furnace
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
211.3100 Industrial Boiler
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
211.3300 Lean-Burn Engine
211.3310 Light Liquid
211.3330 Light-Duty Truck
211.3350 Light Oil
211.3355 Lime Kiln
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
211.3475 Load Shaving Unit
211.3480 Loading Event
211.3483 Long Dry Kiln
211.3485 Long Wet Kiln
211.3487 Low-NO_X Burner
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
211.3780 Mid-Kiln Firing
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
211.4067 NO_X Trading Program
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
211.4280 Other Glass
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
211.5015 Preheater Kiln
211.5020 Preheater/Precalciner Kiln
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
211.5195 Process Heater
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
211.5640 Rich-Burn Engine
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
211.5880 Screen Printing on Paper
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

AUTHORITY: Implementing Sections 9, 9.1, 9.9 and 10 and authorized by Sections 27 and 28 of the Environmental Protection Act [415 ILCS 5/9, 9.1, 9.9, 10, 27 and 28].

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 R01-9 at 25 Ill. Reg. 108, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective March 15, 2001; amended in R01-17 at 25 Ill. Reg. 5900, effective April 17, 2001; amended in R05-16 at 29 Ill. Reg. 8181, effective May 23, 2005; amended in R05-11 at 29 Ill. Reg.8892, effective June 13, 2005; amended in R04-12/20 at 30 Ill. Reg. 9654, effective May 15, 2006; amended in R07-18 at 31 Ill. Reg. 14254, effective September 25, 2007; amended in R08-6 at 32 Ill. Reg. 1387, effective January 16, 2008; amended in R08-19 at 33 Ill. Reg. ____, effective _____.

SUBPART B: DEFINITIONS

Section 211.665 Auxiliary Boiler

"Auxiliary boiler" means, for purposes of Part 217, a boiler that is operated only when the main boiler or boilers at a source are not in service and is used either to maintain building heat or to assist in the startup of the main boiler or boilers. This term does not include emergency or standby units and load shaving units.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.995 Circulating Fluidized Bed Combustor

"Circulating fluidized bed combustor" means, for purposes of Part 217, a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.1315 Combustion Tuning

"Combustion tuning" means, for purposes of Part 217, review and adjustment of a combustion process to maintain combustion efficiency of an emission unit, as performed in accordance with procedures provided by the manufacturer or by a trained technician.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.1435 Container Glass

"Container glass" means, for purposes of Part 217, glass made of soda-lime recipe, clear or colored, which is pressed or blown, or both, into bottles, jars, ampoules, and other products listed in Standard Industrial Classification 3221.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.2355 Flare

"Flare" means an open combustor without enclosure or shroud.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.2357 Flat Glass

"Flat glass" means, for purposes of Part 217, glass made of soda-lime recipe and produced into continuous flat sheets and other products listed in Standard Industrial Classification 3211.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.2625 Glass Melting Furnace

"Glass melting furnace" means, for purposes of Part 217, a unit comprising a refractory vessel in which raw materials are charged and melted at high temperature to produce molten glass.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.3100 Industrial Boiler

"Industrial boiler" means, for purposes of Part 217, an enclosed vessel in which water is heated and circulated either as hot water or as steam for heating or for power, or both. This term does

not include a heat recovery steam generator that captures waste heat from a combustion turbine and boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, ~~and cogeneration units,~~ if such boilers meet the applicability criteria under Subpart M of Part 217.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.3355 Lime Kiln

"Lime kiln" means, for purposes of Part 217, an enclosed combustion device used to calcine lime mud, which consists primarily of calcium carbonate, into calcium oxide.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.3475 Load Shaving Unit

"Load shaving unit" means, for purposes of Part 217, a device used to generate electricity for sale or use during high electric demand days, including but not limited to stationary reciprocating internal combustion engines or turbines.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.4280 Other Glass

"Other glass" means, for purposes of Part 217, glass that is neither container glass, as that term is defined in Section 211.1435, nor flat glass, as that term is defined in Section 211.2357.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 211.5195 Process Heater

"Process heater" means, for purposes of Part 217, an enclosed combustion device that burns gaseous or liquid fuels only and that indirectly transfers heat to a process fluid or a heat transfer medium other than water. This term does not include pipeline heaters and storage tank heaters that are primarily meant to maintain fluids at a certain temperature or viscosity.

(Source: Added at 33 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

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SUBPART X: VOLUNTARY NO_X EMISSIONS REDUCTION PROGRAM

SIP Call
217.APPENDIX H Compliance Dates for Certain Emissions Units at Petroleum Refineries

AUTHORITY: Implementing Sections 9.9 and 10 and authorized by Sections 27 and 28 of the Environmental Protection Act [415 ILCS 5/9.9, 10, 27 and 28].

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 R01-9 at 25 Ill. Reg. 128, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective March 15, 2001; amended in R01-16 and R01-17 at 25 Ill. Reg. 5914, effective April 17, 2001; amended in R07-18 at 31 Ill. Reg. 14271, effective September 25, 2007; amended in R08-19 at 33 Ill. Reg. ____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 217.100 Scope and Organization

a) This Part sets standards and limitations for emission of oxides of nitrogen from stationary sources.

b) Permits for sources subject to this Part may be required pursuant to 35 Ill. Adm. Code 201 or Section 39.5 of the Act.

c) Notwithstanding the provisions of this Part the air quality standards contained in 35 Ill. Adm. Code 243 may not be violated.

d) These rules have been grouped for convenience of the public; the scope of each is determined by its language and history.

(Source: Amended at 33 Ill. Reg. ___, effective _____)

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 procedures, as published in 40 CFR 60, Appendix A, Method 7 (2000);

b) 40 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);

d) 40 CFR 60, 72, 75 & 76 (2006);

e) Alternative Control Techniques Document -- 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;

f) 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;

g) 40 CFR 60.13 (2001);

h) 40 CFR 60, Appendix A, Methods 3A, 7, 7A, 7C, 7D, 7E, 19, and 20 (2000);

i) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (2000);

j~~k~~) Standards of Performance for Stationary Combustion Turbines, 40 CFR 60, Subpart KKKK, 60.4400 (2006); ~~and~~

k~~l~~) Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources (2000), USEPA;~~.~~

l) 40 CFR 60, Appendix A, Methods 1, 2, 3, and 4 (~~2007~~2008);

m) Alternative Control Techniques Document - NO_x Emissions from Industrial/Commercial/Institutional (ICI) Boilers, EPA-453/R-94-022, U. S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, March 1994;

n) Alternative Control Techniques Document - NO_x Emissions from Process Heaters (Revised), EPA-453/R-93-034, U. S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, September 1993;

o) Alternative Control Techniques Document - NO_x Emissions from Glass Manufacturing, EPA-453/R-94-037, U. S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, June 1994; ~~and~~

p) Alternative Control Techniques Document - NO_x Emissions from Iron and Steel Mills, EPA-453/R-94-065, U. S. Environmental Protection Agency, Office of Air

and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, September 1994;~~.~~

q) 40 CFR 60 and 75 (2008); and

r) 40 CFR 60, Appendix B, Performance Specification 16, 74 FR 12575 (March 25, 2009).

(Source: Amended at 33 Ill. Reg. _____, effective _____)

SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

Section 217.121 New Emission Sources (Repealed)

~~No person shall cause or allow the emission of nitrogen oxides (NO_X) into the atmosphere in any one hour period from any new fuel combustion emission source with an actual heat input equal to or greater than 73.2 MW (250 mmbtu/hr) to exceed the following standards and limitations:~~

~~a)~~ ~~For gaseous fossil fuel firing, 0.310 kg/MW-hr (0.20 lbs/mmbtu) of actual heat input;~~

~~b)~~ ~~For liquid fossil fuel firing, 0.464 kg/MW-hr (0.30 lbs/mmbtu) of actual heat input;~~

~~c)~~ ~~For dual gaseous and liquid fossil fuel firing, 0.464 kg/MW-hr (0.30 lbs/mmbtu) of actual heat input;~~

~~d)~~ ~~For solid fossil fuel firing, 1.08 kg/MW-hr (0.7 lbs./mmbtu) of actual heat input;~~

~~e)~~ ~~For fuel combustion emission sources burning simultaneously any combination of solid, liquid and gaseous fossil fuels, an allowable emission rate shall be determined by the following equation:~~

~~$$E = (AG + BL + CS) Q$$~~

~~Where:~~

~~E = Allowable nitrogen oxides emissions rate~~

~~Q = Actual heat input derived from all fossil fuels~~

~~G = Percent of actual heat input derived from gaseous fossil fuel~~

~~L = Percent of actual heat input derived from liquid fossil fuel~~

~~S = Percent of actual heat input derived from solid fossil fuel~~

~~G + L + S = 100.0~~

~~and, where A, B, C and appropriate metric and English units are determined from the following table:~~

	~~Metric~~	~~English~~
~~E~~	~~kg/hr~~	~~lbs/hr~~
~~Q~~	~~MW~~	~~mmbtu/hr~~
~~A~~	~~0.023~~	~~0.003~~
~~B~~	~~0.023~~	~~0.003~~
~~C~~	~~0.053~~	~~0.007~~

(Source: Repealed at 33 Ill. Reg. _____, effective _____)

SUBPART C: EXISTING FUEL COMBUSTION EMISSION UNITS ~~SOURCES~~

Section 217.141 Existing Emission Units ~~Sources~~ in Major Metropolitan Areas

No person shall cause or allow the emission of nitrogen oxides into the atmosphere in any one hour period from any existing fuel combustion emission unit ~~source~~ with an actual heat input equal to or greater than 73.2 MW (250 mmbtu/hr), located in the Chicago or St. Louis (Illinois) major metropolitan areas to exceed the following limitations:

a) For gaseous and/or liquid fossil fuel firing, 0.46 kg/MW-hr (0.3 lbs/mmbtu) of actual heat input;

b) For solid fossil fuel firing, 1.39 kg/MW-hr (0.9 lbs/mmbtu) of actual heat input;

c) For fuel combustion emission units ~~sources~~ burning simultaneously any combination of solid, liquid and gaseous fuel, the allowable emission rate shall be determined by the following equation:

$$E = (AG + BL + CS) Q$$

Where:

E	= allowable nitrogen oxides emissions rate
Q	= actual heat input
G	= percent of actual heat input derived from gaseous fossil fuel
L	= percent of actual heat input derived from liquid fossil fuel
S	= percent of actual heat input derived from solid fossil fuel
G + L + S	= 100.0

and where A, B, and C and appropriate metric and English units are determined from the following table:

	Metric	English
E	kg/hr	lbs/hr
Q	MW	mmbtu/hr
A	0.023	0.003

B	0.023	0.003
C	0.068	0.009

d) Exceptions: This Section ~~rule~~ shall not apply to the following:

1) Existing ~~existing~~ fuel combustion units ~~sources~~ that ~~which~~ are either cyclone fired boilers burning solid or liquid fuel, or horizontally opposed fired boilers burning solid fuel; or~~.~~

2) Emission units that are subject to the emissions limitations of Subpart E, F, G, H, M, or Q of this Part.

(Source: Amended at 33 Ill. Reg. _____, effective _____)

SUBPART D: NO_x GENERAL REQUIREMENTS~~INDUSTRIAL BOILERS~~

Section 217.150 Applicability

a) Applicability

1) The provisions of this Subpart and Subparts E, F, G, H, I and M of this Part apply to the following:

A) All sources that are located in either one of the following areas and that emit or have the potential to emit NO_x in an amount equal to or greater than 100 tons per year:

i) The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County; or

ii) The area composed of the Metro East area counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County; and

B) Any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler at such sources described in subsection (a)(1)(A) of this Section that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season.

2) For purposes of this Section, "potential to emit" means the quantity of NO_x that potentially could be emitted by a stationary source before add-on controls based on the design capacity or maximum production capacity of

the source and 8,760 hours per year or the quantity of NO_x that potentially could be emitted by a stationary source as established in a federally enforceable permit.

b) If a source ceases to fulfill the emissions criteria of subsection (a) of this Section, the requirements of this Subpart and Subpart E, F, G, H, I or M of this Part continue to apply to any emission unit that was ever subject to the provisions of any of those Subparts.

c) The provisions of this Subpart do not apply to afterburners, flares, and incinerators.

d) Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO_x from existing emission units for purposes of netting or emission offsets, such NO_x decreases remain creditable notwithstanding any requirements that may apply to the existing emission units pursuant to this Subpart and Subpart E, F, G, H, I or M of this Part .

e) The owner or operator of an emission unit that is subject to this Subpart and Subpart E, F, G, H, I or M of this Part must operate such unit in a manner consistent with good air pollution control practice to minimize NO_x emissions.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 217.152 Compliance Date

a) Compliance with the requirements of Subparts E, F, G, H, I and M by an owner or operator of an emission unit that is subject to any of those Subparts is required beginning January 1, 2012.

b) Notwithstanding subsection (a) of this Section, compliance with the requirements of Subpart G of this Part by an owner or operator of an emission unit subject to Subpart G of this Part shall be extended until December 31, 2014, if such units are required to meet emissions limitations for NOx, as measured using a continuous emissions monitoring system, and included within a legally enforceable order on or before December 31, 2009, whereby such emissions limitations are less than 30 percent of the emissions limitations set forth under Section 217.204.

c) Notwithstanding subsection (a) of this Section, the owner or operator of emission units subject to Subpart E or F of this Part and located at a petroleum refinery must comply with the requirements of this Subpart and Subpart E or F of this Part, as applicable, for those emission units beginning January 1, 2012, except that the owner or operator of emission units listed in Appendix H must comply with the requirements of this Subpart, including the option of demonstrating compliance with the applicable Subpart through an emissions averaging plan under Section

217.158 and Subpart E or F of this Part, as applicable, for the listed emission units beginning on the dates set forth in Appendix H. With Agency approval, the owner or operator of emission units listed in Appendix H may elect to comply with the requirements of this Subpart and Subpart E or F of this Part, as applicable, by reducing the emissions of emission units other than those listed in Appendix H, provided that the emissions limitations of such other emission units are equal to or more stringent than the applicable emissions limitations set forth in Subpart E or F of this Part, as applicable, by the dates set forth in Appendix H.

(Source: Added at 33 Ill. Reg. _____, effective _____)

Section 217.154 Performance Testing

a) Performance testing of NO_x emissions for emission units constructed on or before July 1, 2011, and subject to emissions limitations under Subpart E, F, G, H or I of this Part must be conducted in accordance with Section 217.157 of this Subpart. Except as provided for under Section 217.157(a)(4) and (e)(1), this ~~This~~ subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emissions monitoring system, predictive emission monitoring system, or combustion tuning.

b) Performance testing of NO_x emissions for emission units for which construction or modification occurs after July 1, 2011, and that are subject to emissions limitations under Subpart E, F, G, H or I of this Part must be conducted within 60 days ~~after~~of achieving maximum operating rate but no later than 180 days after initial startup of the new or modified emission unit, in accordance with Section 217.157 of this Subpart. Except as provided for under Section 217.157(a)(4) and (e)(1), this ~~This~~ subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emissions monitoring system, predictive emission monitoring system, or combustion tuning.

c) Notification of the initial startup of an emission unit subject to subsection (b) of this Section must be provided to the Agency no later than 30 days after initial startup.

d) The owner or operator of an emission unit subject to subsection (a) or (b) of this Section must notify the Agency of the scheduled date for the performance testing in writing at least 30 days before such date and five days before such date.

e) If demonstrating compliance through an emissions averaging plan, at least 30 days before changing the method of compliance, the owner or operator of an emission unit must submit a written notification to the Agency describing the new method of compliance, the reason for the change in the method of compliance, and the scheduled date for performance testing, if required. Upon changing the method of compliance, the owner or operator of an emission unit must submit to

the Agency a revised compliance certification that meets the requirements of Section 217.155.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.155 Initial Compliance Certification

a) By the applicable compliance date set forth under Section 217.152, an owner or operator of an emission unit subject to Subpart E, F, G, H or I of this Part who is not demonstrating compliance through the use of a continuous emissions monitoring system must certify to the Agency that the emission unit will be in compliance with the applicable emissions limitation of Subpart E, F, G, H or I of this Part beginning on such applicable compliance date. The performance testing certification must include the results of the performance testing performed in accordance with Section 217.154(a) and (b) and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance.

b) By the applicable compliance date set forth under Section 217.152, an owner or operator of an emission unit subject to Subpart E, F, G, H, I or M of this Part who is demonstrating compliance through the use of a continuous emissions monitoring system must certify to the Agency that the affected emission units will be in compliance with the applicable emissions limitation of Subpart E, F, G, H, I, or M of this Part beginning on such applicable compliance date. The compliance certification must include a certification of the installation and operation of a continuous emissions monitoring system required under Section 217.157 and the monitoring data necessary to demonstrate that the subject emission unit will be in initial compliance.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.156 Recordkeeping and Reporting

a) The owner or operator of an emission unit subject to Subpart E, F, G, H, I or M of this Part must keep and maintain all records used to demonstrate initial compliance and ongoing compliance with the requirements of those Subparts.

1) Except as otherwise provided under this Subpart or Subpart E, F, G, H, I or M of this Part, copies of such records must be submitted by the owner or operator of the source to the Agency within 30 days after receipt of a written request by the Agency.

2) Such records must be kept at the source and maintained for at least five years and must be available for immediate inspection and copying by the Agency.

b) The owner or operator of an emission unit subject to Subpart E, F, G, H, I or M of this Part must maintain records that demonstrate compliance with the requirements of those Subparts, as applicable, that include the following:

1) Identification, type (e.g., gas-fired), and location of each unit.

2) Calendar date of the record.

3) Monthly, seasonal, and annual operating hours.

4) Type and quantity of each fuel used monthly, seasonally, and annually.

5) Product and material throughput, as applicable.

6) Reports for all applicable emissions tests for NO_x conducted on the unit, including results.

7) The date, time, and duration of any startup, shutdown, or malfunction in the operation of any emission unit subject to Subpart E, F, G, H, I or M of this Part or any emissions monitoring equipment. The records must include a description of the malfunction and corrective maintenance activity.

8) A log of all maintenance and inspections related to the unit's air pollution control equipment for NO_x that is performed on the unit.

9) A log for the NO_x monitoring device, if present, including periods when not in service and maintenance and inspection activities that are performed on the device.

10) Identification of time periods for which operating conditions and pollutant data were not obtained by the continuous emissions monitoring system, including the reasons for not obtaining sufficient data and a description of corrective actions taken.

11) If complying with the emissions averaging plan provisions of Section 217.158, copies of the calculations used to demonstrate compliance with the ozone season and annual control period limitations, noncompliance reports for the ozone season, and ozone and annual control period compliance reports submitted to the Agency.

c) The owner or operator of an industrial boiler subject to Subpart E of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.166.

d) The owner or operator of a process heater subject to Subpart F of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.186.

e) The owner or operator of an emission unit subject to Subpart E, F, G, H, I or M of this Part must maintain records in order to demonstrate compliance with the testing and monitoring requirements under Section 217.157.

f) The owner or operator of an emission unit subject to Subpart E, F, G, H or I of this Part must provide the following information with respect to performance testing pursuant to Section 217.157:

1) Submit a testing protocol to the Agency at least 60 days prior to testing;

2) Notify the Agency at least 30 days in writing prior to conducting performance testing for NO_x emissions and five days prior to such testing;

3) Not later than 60 days after the completion of the test, submit the results of the test to the Agency; and

4) If, after the 30-days' notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the test as scheduled, the owner or operator of the unit must notify the Agency as soon as practicable of the delay in the original test date, either by providing at least seven days' prior notice of the rescheduled date of the test or by arranging a new test date with the Agency by mutual agreement.

g) The owner or operator of an emission unit subject to Subpart E, F, G, H, I or M of this Part must notify the Agency of any exceedances of an applicable emissions limitation of Subpart E, F, G, H, I or M of this Part by sending the applicable report with an explanation of the causes of such exceedances to the Agency within 30 days following the end of the applicable compliance period in which the emissions limitation was not met.

h) Within 30 days after the receipt of a written request by the Agency, the owner or operator of an emission unit that is exempt from the requirements of Subpart E, F, G, H, I or M of this Part must submit records that document that the emission unit is exempt from those requirements to the Agency.

i) If demonstrating compliance through an emissions averaging plan, by March 1 following the applicable calendar year, the owner or operator must submit to the Agency a report that demonstrates the following:

1) For all units that are part of the emissions averaging plan, the total mass of allowable NO_X emissions for the ozone season and for the annual control period;

2) The total mass of actual NO_X emissions for the ozone season and annual control period for each unit included in the averaging plan;

3) The calculations that demonstrate that the total mass of actual NO_X emissions are less than the total mass of allowable NO_X emissions using equations in Section 217.158(f); and

4) The information required to determine the total mass of actual NO_X emissions.

j) The owner or operator of an emission unit subject to the requirements of Section 217.157 and demonstrating compliance through the use of a continuous emissions monitoring system must submit to the Agency a report within 30 days after the end of each calendar quarter. This report must include the following:

1) Information identifying and explaining the times and dates when continuous emissions monitoring for NO_x was not in operation, other than for purposes of calibrating or performing quality assurance or quality control activities for the monitoring equipment; and

2) An excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and (d) and 60.13, or 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.

k) The owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 96, or an alternate procedure approved by the Agency and USEPA.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.157 Testing and Monitoring

a) Industrial Boilers and Process Heaters

1) The owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 75, as incorporated by reference in Section 217.104. However, the owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr that combusts blast furnace gas with up to 10% natural gas on an annual basis and located at a

source that manufactures iron and steel is not required to install, calibrate, maintain, and operate a continuous emissions monitoring system on such industrial boiler, provided the heat input from natural gas does not exceed 10% on an annual basis and the owner or operator complies with the performance test requirements under this Section and demonstrates, during each performance test, that NO_x emissions from such industrial boiler are less than 70% of the applicable emissions limitation under Section 217.164. In the event such owner or operator is unable to meet the requirements of this paragraph, a continuous emissions monitoring system is required within 12 months of such event, or by December 31, 2012, whichever is later.

2) The owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 100 mmBtu/hr but less than or equal to 250 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on such emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

3) The owner or operator of a process heater subject to Subpart F of this Part with a rated heat input capacity greater than 100 mmBtu/hr must install, calibrate, maintain, and operate a continuous emissions monitoring system on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3 and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

4) If demonstrating compliance through an emissions averaging plan, the owner or operator of an industrial boiler subject to Subpart E of this Part, or a process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr and not demonstrating compliance through a continuous emissions monitoring system must have an initial performance test conducted pursuant to subsection (a)(4)(B) of this Section and Section 217.154.

A) An owner or operator of an industrial boiler or process heater must have subsequent performance tests conducted pursuant to subsection (a)(4)(B) of this Section at least once every five years. When in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.164 or 217.184, as applicable, the owner or operator of an industrial boiler or process heater must, at his or her own expense, have such test conducted in accordance with the applicable test methods and

procedures specified in this Section within 90 days of receipt after a notice to test from the Agency or USEPA.

B) The owner or operator of an industrial boiler or process heater must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the industrial boiler is operating at maximum operating capacity or while the process heater is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted, with Agency approval, on such combination of fuels typically used. Except as provided under subsection (e) of this Section, this subsection (a)(4)(B) does not apply if such owner or operator is demonstrating compliance with an emissions limitation through a continuous emissions monitoring system under subsection (a)(1), (a)(2), (a)(3), or (a)(5) of this Section.

5) Instead of complying with the requirements of subsections (a)(4), (a)(4)(A), and (a)(4)(B) of this Section, an owner or operator of an industrial boiler subject to Subpart E of this Part, or a process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr may install and operate a continuous emissions monitoring system on such emission unit in accordance with the applicable requirements of 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3 and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104. The continuous emissions monitoring system must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis.

6) Notwithstanding subsection (a)(2) of this Section, the owner or operator of an auxiliary boiler subject to Subpart E of this Part with a rated heat input capacity less than or equal to 250 mmBtu/hr and a capacity factor of less than or equal to 20% is not required to install, calibrate, maintain, and operate a continuous emissions monitoring system on such boiler for the measurement of NO_x emissions discharged into the atmosphere, but must comply with the performance test requirements under subsections (a)(4), (a)(4)(A), and (a)(4)(B) of this Section.

b) Glass Melting Furnaces; Cement Kilns; Lime Kilns; Iron and Steel Reheat, Annealing, and Galvanizing Furnaces; and Aluminum Reverberatory and Crucible Furnaces

1) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart H of this Part that has the potential to emit NO_x in an amount equal to or greater than one ton per day must install, calibrate, maintain, and operate a continuous emissions monitoring system on such emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

2) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount less than one ton per day must have an initial performance test conducted pursuant to subsection (b)(4) of this Section and Section 217.154.

3) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount less than one ton per day must have subsequent performance tests conducted pursuant to subsection (b)(4) of this Section as follows:

A) For all glass melting furnaces subject to Subpart G of this Part, cement kilns or lime kilns subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnaces subject to Subpart I of this Part, including all such units included in an emissions averaging plan, at least once every five years; and

B) When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.204, 217.224, or 217.244, of this Part, as applicable, the owner or operator of a glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace must, at his or her own expense,

have such test conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.

4) The owner or operator of a glass melting furnace, cement kiln, or lime kiln must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Methods 1, 2, 3, 4, and 7E, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. The owner or operator of an iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace is operating at maximum operating capacity. If the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. Except as provided under subsection (e) of this Section, this subsection (b)(4) does not apply if such owner or operator is demonstrating compliance with an emissions limitation through a continuous emissions monitoring system under subsection (b)(1) or (b)(5) of this Section.

5) Instead of complying with the requirements of subsections (b)(2), (b)(3), and (b)(4) of this Section, an owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount less than one ton per day may install and operate a continuous emissions monitoring system on such emission unit in accordance with the applicable requirements of 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104 of this Part. The continuous emissions monitoring system must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis.

c) Fossil Fuel-Fired Stationary Boilers. The owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a continuous emissions monitoring system on such emission unit for

the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 96, subpart H.

d) Common Stacks. If two or more emission units subject to Subpart E, F, G, H, I, M, or Q of this Part are served by a common stack and the owner or operator of such emission units is operating a continuous emissions monitoring system, the owner or operator may, with written approval from the Agency, utilize a single continuous emissions monitoring system for the combination of emission units subject to Subpart E, F, G, H, I,M , or Q of this Part that share the common stack, provided such emission units are subject to an emissions averaging plan under this Part.

e) Compliance with the continuous emissions monitoring system (CEMS) requirements by an owner or operator of an emission unit who is required to install, calibrate, maintain, and operate a CEMS on the emission unit under subsection (a)(1), (a)(2), (a)(3), or (b)(1) of this Section, or who has elected to comply with the CEMS requirements under subsection (a)(5) or (b)(5) of this Section, or who has elected to comply with the predictive emission monitoring system (PEMS) requirements under subsection (f) of this Section, is required by the following dates:

1) For the owner or operator of an emission unit that is subject to a compliance date in calendar year 2012 under Section 217.152, compliance with the CEMS or PEMS requirements, as applicable, under this Section for such emission unit is required by December 31, 2012, provided that, during the time between the compliance date and December 31, 2012, the owner or operator must comply with the applicable performance test requirements under this Section and the applicable recordkeeping and reporting requirements under this Subpart. For the owner or operator of an emission unit that is in compliance with the CEMS or PEMS requirements, as applicable, under this Section on January 1, 2012, such owner or operator is not required to comply with the performance test requirements under this Section.

2) For the owner or operator of an emission unit that is subject to a compliance date in a calendar year other than calendar year 2012 under Section 217.152 of this Subpart, compliance with the CEMS or PEMS requirements, as applicable, under this Section for such emission unit is required by the applicable compliance date, and such owner or operator is not required to comply with the performance test requirements under this Section.

f) As an alternative to complying with the requirements of this Section, other than the requirements under subsections (a)(1) and (c) of this Section, the owner or operator of an emission unit who is not otherwise required by any other statute, regulation, or enforceable order to install, calibrate, maintain, and operate a

CEMS on the emission unit may comply with the specifications and test procedures for a predictive emission monitoring system (PEMS) on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with the requirements of 40 CFR 60, subpart A and appendix B, Performance Specification 16. The PEMS must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.158 Emissions Averaging Plans

a) Notwithstanding any other emissions averaging plan provisions under this Part, an owner or operator of a source with certain emission units subject to Subpart E, F, G, H, I or M of this Part, or subject to Subpart Q of this Part that are located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) ~~217.150(a)(1)(A) or (B)~~, may demonstrate compliance with the applicable Subpart through an emissions averaging plan. An emissions averaging plan can only address emission units that are located at one source and each unit may only be covered by one emissions averaging plan. Such emission units at the source are affected units and are subject to the requirements of this Section.

1) The following units may be included in an emissions averaging plan:

A) Units that commenced operation on or before January 1, 2002.

B) Units that the owner or operator may claim as exempt pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable, but does not claim exempt. For as long as such a unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, and testing, monitoring, recordkeeping and reporting requirements.

C) Units that commence operation after January 1, 2002, if the unit replaces a unit that commenced operation on or before January 1, 2002, or it replaces a unit that replaced a unit that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO_x emissions on an annual basis than the actual NO_x emissions of the unit or units that are replaced. Within 90 days after permanently shutting down a unit that is replaced, the owner or operator of such unit must submit a written request to withdraw or amend the applicable permit to reflect that the unit is no longer in service before the replacement unit may be included in an emissions averaging plan.

2) The following types of units may not be included in an emissions averaging plan:

A) Units that commence operation after January 1, 2002, except as provided by subsection (a)(1)(C) of this Section.

B) Units that the owner or operator is claiming are exempt pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable.

C) Units that are required to meet emission limits or control requirements for NO_x, as provided for in an enforceable order, unless such order allows for emissions averaging. In the case of petroleum refineries, this subsection does not prohibit including industrial boilers or process heaters, or both, in an emissions averaging plan where an enforceable order does not prohibit the reductions made under such order from also being used for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area. ~~Units that are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order, unless such order allows for emissions averaging.~~

b) An owner or operator must submit an emissions averaging plan to the Agency by January 1, 2012. The plan must include, but is not limited to, the following:

1) The list of affected units included in the plan by unit identification number; and

2) A sample calculation demonstrating compliance using the methodology provided in subsection (f) of this Section for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31).

c) An owner or operator may amend an emissions averaging plan only once per calendar year. Such an amended plan must be submitted to the Agency by January 1 of the applicable calendar year. If an amended plan is not received by the Agency by January 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan.

d) Notwithstanding subsection (c) of this Section:

1) If a unit that is listed in an emissions averaging plan is taken out of service, the owner or operator must submit to the Agency, within 30 days after such occurrence, an updated emissions averaging plan; or

2) If a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242 or 217.342, of this Part, as applicable, no longer qualifies for an exemption, the owner or operator may amend its existing averaging plan to include such unit within 30 days after the unit no longer qualifies for the exemption.

e) An owner or operator must:

1) Demonstrate compliance for the ozone season (May 1 through September 30) and the calendar year (January 1 through December 31) by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency pursuant to subsection (b) of this Section, the monitoring data or test data determined pursuant to Section 217.157, and the actual hours of operation for the applicable averaging plan period; and

2) Submit to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i).

f) The total mass of actual NO_X emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_X emissions for those units for both the ozone season and calendar year. The following equation must be used to determine compliance:

$$N_{act} \leq N_{all}$$

Where:

N_{act} = $\sum_{i=1}^{n}\sum_{j=1}^{k} EM_{act(i,j)}$

N_{all} = $\sum_{i=1}^{n}\sum_{j=1}^{k} EM_{all(i,j)}$

N_{act} = Total sum of the actual NO_X mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).

N_{all} = Total sum of the allowable NO_X mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).

$EM_{act(i)}$ = Total mass of actual NO_X emissions in tons for a unit as determined in subsection (f)(1) of this Section.

i = Subscript denoting an individual unit.

J = Subscript denoting the fuel type used.

K = Number of different fuel types.
n = Number of different units in the averaging plan.
$EM_{all(i)}$ = Total mass of allowable NO_X emissions in tons for a unit as determined in subsection (f)(2) of this Section.

For each unit in the averaging plan, and each fuel used by such unit, determine actual and allowable NO_X emissions using the following equations:

1) Actual emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,
$EM_{act(i)} = E_{act(i)} \times H_i/2000$

When emission limits are prescribed in lb/ton of processed product,
$EM_{act(i)} = E_{act(i)} \times P_i/2000$

2) Allowable emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,
$EM_{all(i)} = E_{all(i)} \times H_i/2000$

When emission limits are prescribed in lb/ton of processed product,
$EM_{all(i)} = E_{all(i)} \times P_i/2000$

Where:

$EM_{act(i)}$ = Total mass of actual NO_X emissions in tons for a unit.
$EM_{all(i)}$ = Total mass of allowable NO_X emissions in tons for a unit.
E_{act} = Actual NO_X emission rate (lbs/mmBtu or lbs/ton of product) as determined by a performance test, a continuous emissions monitoring system, or an alternative method approved by the Agency.

E_{all} = Allowable NO_X emission rate (lbs/mmBtu or lbs/ton of product) as provided in Section 217.164, 217.184, 217.204, 217.224, 217.244, or 217.344, as applicable. For an affected industrial boiler subject to Subpart E of this Part, or process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr demonstrating compliance through an emissions

averaging plan, the allowable NOx emission rate is to be determined from a performance test after such boiler or heater has undergone combustion tuning. For all other units in an emissions averaging plan, an uncontrolled NOx emission rate from USEPA's AP-42, as incorporated by reference in Section 217.104, or an uncontrolled NOx emission rate as determined by an alternative method approved by the Agency, will be used.

H = Heat input (mmBtu/ozone season or mmBtu/year) calculated from fuel flow meter and the heating value of the fuel used.

P = weight in tons of processed product.

g) An owner or operator of an emission unit subject to Subpart Q of this Part that is located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) ~~217.150(a)(1)(A) or (B)~~ that is complying through an emissions averaging plan under this Section must comply with the applicable provisions for determining actual and allowable emissions under Section 217.390, the testing and monitoring requirements under Section 217.394, and the recordkeeping and reporting requirements under Section 217.396.

h) The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the emission unit for the maintenance turnaround and the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround.

i) The owner or operator of an emission unit that combusts a combination of coke oven gas and other gaseous fuels and that is located at a source that manufactures iron and steel who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when the coke oven gas desulfurization unit included in the emissions averaging plan is shut down for maintenance, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the coke oven gas desulfurization unit for maintenance and such shutdown does not exceed 35 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance period.

j) The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when NO_x pollution control equipment that controls one or more emission units included in the emissions averaging plan is shut down for a maintenance turnaround, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the NO_x pollution control equipment for the maintenance turnaround and the shutdown of the NO_x pollution control equipment does not exceed 45 days per ozone season or calendar year, and except for those emission units vented to the NO_x pollution control equipment undergoing the maintenance turnaround, NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround.

(Source: Added at 33 Ill. Reg. ____, effective _____)

SUBPART E: INDUSTRIAL BOILERS

Section 217.160 Applicability

a) The provisions of Subpart D of this Part and this Subpart apply to all industrial boilers located at sources subject to this Subpart pursuant to Section 217.150, except as provided in subsections (b) and (c) of this Section.

b) The provisions of this Subpart do not apply to boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, ~~and cogeneration units, as that term is defined in 35 Ill. Adm. Code 225.130,~~ if such boilers meet the applicability criteria under Subpart M of Part 217~~or cogeneration units are subject to the CAIR NO_x Trading Programs under 35 Ill. Adm. Code 225.Subpart D or E.~~

c) The provisions of this Subpart do not apply to fluidized catalytic cracking units, their regenerator and associated CO boiler or boilers and CO furnace or furnaces where present, if such units are located at a petroleum refinery and such units are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.162 Exemptions

Notwithstanding Section 217.160 of this Subpart, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.164 Emissions Limitations

Except as provided for under Section 217.152, on~~On~~ and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any industrial boiler to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.

Fuel	Emission Unit Type and Rated Heat Input Capacity (mmmBtu/hr)	NO_x Emissions Limitation (lb/mmmBtu or Requirement
a) Natural Gas or Other Gaseous Fuels	1) Industrial boiler greater than 100	0.08
	2) Industrial boiler less than equal to 100	Combustion tuning
b) Distillate Fuel Oil	1) Industrial boiler greater than 100	0.10
	2) Industrial boiler less than or equal to 100	Combustion tuning
c) Other Liquid Fuels	1) Industrial boiler greater than 100	0.15
	2) Industrial boiler less than or equal to 100	Combustion tuning
d) Solid Fuel	1) Industrial boiler greater than 100, circulating fluidized bed combustor	0.12
	2) Industrial boiler greater than 250	0.18
	3) Industrial boiler greater than 100 but less than or equal to 250	0.25
	4) Industrial boiler less than or equal to 100	Combustion tuning

e) For an industrial boiler combusting a combination of natural gas, coke oven gas, and blast furnace gas, the NO_x emissions limitation shall be calculated using the following equation:

$$NO_x \text{ emissions limitation for period in lb/MMBtu} = (NO_{xNG} * Btu_{NG} + NOx_{COG} * Btu_{COG} + NOx_{BFG} * Btu_{BFG}) / (Btu_{NG} + Btu_{COG} + Btu_{BFG})$$

Where:

NOx_{NG} = 0.084 lb/MMBtu for natural gas

Btu_{NG} = the heat input of natural gas in Btu over that period

NOx_{COG} = 0.144 lb/MMBtu for coke oven gas

Btu_{COG} = the heat input of coke oven gas in Btu over that period

NOx_{BFG} = 0.0288 lb/MMBtu for blast furnace gas

Btu_{BFG} = the heat input of blast furnace gas in Btu over that period

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.165 Combination of Fuels

The owner or operator of an industrial boiler subject to this Subpart and operated with any combination of fuels must comply with a heat input weighted average emissions limitation to demonstrate compliance with Section 217.164.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.166 Methods and Procedures for Combustion Tuning

The owner or operator of an industrial boiler subject to the combustion tuning requirements of Section 217.164 must have combustion tuning performed on the boiler at least annually. The combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of boilers firing the fuel or fuels that are fired in the boiler. The owner or operator must maintain the following records that must be made available to the Agency upon request:

a) The date the combustion tuning was performed;

b) The name, title, and affiliation of the person who performed the combustion tuning;

c) Documentation demonstrating the provider of the combustion tuning training course, the dates the training course was taken, and proof of successful completion of the training course;

d) Tune-up procedure followed and checklist of items (such as burners, flame conditions, air supply, scaling on heating surface, etc.) inspected prior to the actual tune-up; and

e) Operating parameters recorded at the start and at conclusion of combustion tuning.

(Source: Added at 33 Ill. Reg. ____, effective _____)

SUBPART F: PROCESS HEATERS

Section 217.180 Applicability

The provisions of Subpart D of this Part and this Subpart apply to all process heaters located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.182 Exemptions

Notwithstanding Section 217.180, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of NO_x emissions from such heater to less than 15 tons per year and less than five tons per ozone season.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.184 Emissions Limitations

Except as provided for under Section 217.152, on~~On~~ and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any process heater to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.

Fuel	Emission Unit Type and Rated Heat Input Capacity (mmmBtu/hr)	NO_x Emissions Limitation (lb/mmmBtu or Requirement
a) Natural Gas or Other Gaseous Fuels	1) Process heater greater than 100	0.08
	2) Process heater less than	Combustion tuning

		or equal to 100	
b) Residual Fuel Oil	1)	Process heater greater than 100, natural draft	0.10
	2)	Process heater greater than 100, mechanical draft	0.15
	3)	Process heater less than or equal to 100	Combustion tuning
c) Other Liquid Fuels	1)	Process heater greater than 100, natural draft	0.05
	2)	Process heater greater than 100, mechanical draft	0.08

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.185 Combination of Fuels

The owner or operator of a process heater subject to this Subpart and operated with any combination of fuels must comply with a heat input weighted average emissions limitation to demonstrate compliance with Section 217.184.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.186 Methods and Procedures for Combustion Tuning

The owner or operator of a process heater subject to the combustion tuning requirements of Section 217.184 must have combustion tuning performed on the heater at least annually. The combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of heaters firing the fuel or fuels that are fired in the heater. The owner or operator must maintain the following records that must be made available to the Agency upon request:

a) The date the combustion tuning was performed;

b) The name, title, and affiliation of the person who performed the combustion tuning;

c) Documentation demonstrating the provider of the combustion tuning training course, the dates the training course was taken, and proof of successful completion of the training course;

d) Tune-up procedure followed and checklist of items (such as burners, flame conditions, air supply, scaling on heating surface, etc.) inspected prior to the actual tune-up; and

e) Operating parameters recorded at the start and at conclusion of combustion tuning.

(Source: Added at 33 Ill. Reg. ____, effective _____)

SUBPART G: GLASS MELTING FURNACES

Section 217.200 Applicability

The provisions of Subpart D of this Part and this Subpart apply to all glass melting furnaces located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.202 Exemptions

Notwithstanding Section 217.200, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.204 Emissions Limitations

a) On and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any glass melting furnace to exceed the following limitations. Compliance must be demonstrated with the emissions limitation on an ozone season and annual basis.

Product	Emission Unit Type	Nox Emissions Limitation (lb/ton glass produced)
1) Container Glass	Glass melting furnace	5.0
2) Flat Glass	Glass melting furnace	7.9
3) Other Glass	Glass melting furnace	11.0

b) The emissions during glass melting furnace startup (not to exceed 70 days) or furnace idling (operation at less than 35% of furnace capacity) shall be excluded from calculations for the purpose of demonstrating compliance with the seasonal and annual emissions limitations under this Section, provided that such owner or

operator, at all times, including periods of startup and idling, to the extent practicable, maintain and operate any affected emission unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions The owner or operator of a glass melting furnace must maintain records that include the date, time, and duration of any startup or idling in the operation of such glass melting furnace. ~~The emissions limitations under this Section do not apply during glass melting furnace startup (not to exceed 70 days) or idling (operation at less than 35% of furnace capacity). For the purposes of demonstrating seasonal and annual compliance, the emissions limitation during such periods shall be calculated as follows:~~

NOx emissions limitation (lb/day) = (ANL) / (PPC)

Where: ANL = The applicable NOx emissions limitation under this Section in pounds per ton of glass produced
PPC = Permitted production capacity in tons of glass produced per day

(Source: Added at 33 Ill. Reg. ____, effective _____)

SUBPART H: CEMENT AND LIME KILNS

Section 217.220 Applicability

a) Notwithstanding Subpart T of this Part, the provisions of Subpart D of this Part and this Subpart apply to all cement kilns located at sources subject to this Subpart pursuant to Section 217.150.

b) The provisions of Subpart C of this Part and this Subpart apply to all lime kilns located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.222 Exemptions

Notwithstanding Section 217.220, the provisions of this Subpart do not apply to a cement kiln or lime kiln operating under a federally enforceable limit of NO_x emissions from such kiln to less than 15 tons per year and less than five tons per ozone season.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.224 Emissions Limitations

a) On and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any cement kiln to exceed the following limitations.

Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.

	Emission Unit Type	Nox Emissions Limitation (lb/ton clinker produced)
1)	Long dry kiln	5.1
2)	Short dry kiln	5.1
3)	Preheater kiln	3.8
4)	Preheater/precalciner kiln	2.8

b) On and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any lime kiln to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.

	Fuel	Emission Unit Type	Nox Emissions Limitation (lb/ton lime produced)
1)	Gas	Rotary kiln	2.2
2)	Coal	Rotary kiln	2.5

(Source: Added at 33 Ill. Reg. ____, effective _____)

SUBPART I: IRON AND STEEL AND ALUMINUM MANUFACTURING

Section 217.240 Applicability

a) The provisions of Subpart D of this Part and this Subpart apply to all reheat furnaces, annealing furnaces, and galvanizing furnaces used in iron and steel making located at sources subject to this Subpart pursuant to Section 217.150.

b) The provisions of Subpart D of this Part and this Subpart apply to all reverberatory furnaces and crucible furnaces used in aluminum melting located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.242 Exemptions

Notwithstanding Section 217.240, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or

crucible furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

(Source: Added at 33 Ill. Reg. ____, effective _____)_____)

Section 217.244 Emissions Limitations

a) On and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any reheat furnace annealing furnace, or galvanizing furnace used in iron and steel making to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.

	Emission Unit Type	No_x Emissions Limitation (lb/mmBtu)
1)	Reheat furnace, regenerative	0.18
2)	Reheat recuperative, combusting natural gas	0.09
3)	Reheat furnace, recuperative, combusting a combination of natural gas and coke oven gas	0.142
4)	Reheat furnace, cold-air	0.03
5)	Annealing furnace, regenerative	0.38
6)	Annealing furnace, recuperative	0.16
7)	Annealing furnace, cold-air	0.07
8)	Galvanizing furnace, regenerative	0.46
9)	Galvanizing furnace, cuperative	0.16
10)	Galvanizing furnace, cold-air	0.06

b) On and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any reverberatory furnace or crucible furnace used in aluminum melting to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.

	Emission Unit Type	NO_x Emissions Limitation (lb/mmmBtu)
1)	Reverberatory furnace	~~5.1~~0.08
2)	Crucible furnace	~~5.1~~0.16

(Source: Added at 33 Ill. Reg. ____, effective _____)

SUBPART M: ELECTRICAL GENERATING UNITS

Section 217.340 Applicability

Notwithstanding Subpart V or W of this Part, the provisions of Subpart D of this Part and this Subpart apply to any fossil fuel-fired stationary boiler serving at any time a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, excluding any units listed in Appendix D of this Part, located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.342 Exemptions

a) Notwithstanding Section 217.340 , the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.

b) Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a coal-fired stationary boiler that commenced operation before January 1, 2008, that is complying with Part~~35 Ill. Adm. Code~~ 225.Subpart B through the multi-pollutant standard ~~under 35 Ill. Adm. Code 225.233~~ or the combined pollutant standard~~standards under 35 Ill. Adm. Code 225.Subpart F~~.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.344 Emissions Limitations

On and after January 1, 2012, no person shall cause or allow emissions of NO_x into the atmosphere from any fossil fuel-fired stationary boiler to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis.
NO_x Emissions

Fuel	Emission Unit Type	No_x Emissions Limitation (lb/mmmBtu)

a)	Solid	Boiler	0.12
b)	Natural gas	Boiler	0.06
c)	Liquid	1) Boiler that commenced operation before January 1, 2008.	0.10
		2) Boiler that commenced Operation on or after January 1, 2008	0.08

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.345 Combination of Fuels

The owner or operator of a fossil fuel-fired stationary boiler subject to this Subpart and operated with any combination of fuels must comply with a heat input weighted average emissions limitation to demonstrate compliance with Section 217.344.

(Source: Added at 33 Ill. Reg. ____, effective _____)

Section 217.APPENDIX H: Compliance Dates for Certain Emission Units at Petroleum Refineries

ExxonMobil Oil Corporation (Facility ID 197800AAA)

Point	Emission Unit Description	Compliance Date
0019	Crude Vacuum Heater (13-B-2)	December 31,2014
0038	Alky Iso-Stripper Reboiler (7-B-1)	December 31,2014
0033	CHD Charge Heater (3-B-1)	December 31,2014
0034	CHD Stripper Reboiler (3-B-2)	December 31,2014
0021	Coker East Charge Heater (16-B-1A)	December 31,2014
0021	Coker East Charge Heater (16-B-1B)	December 31,2014
0018	Crude Atmospheric Heater (1-B-1A)	December 31,2014
0018	Crude Atmospheric Heater (1-B-1B)	December 31,2014

ConocoPhillips Company Wood River Refinery (Facility ID 119090AAA)

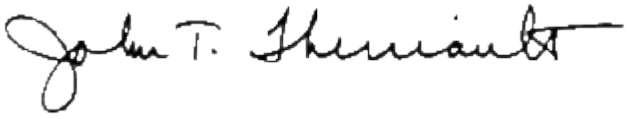
Point	Emission Unit Description	Compliance Date
0017	BEU-HM-1	December 31, 2012
0018	BEU-HM-2	December 31, 2012
0004	CR-1 Feed Preheat, H-1	December 31, 2012
0005	CR-1 1st Interreactor Heater, H-2	December 31, 2012

0009	CR-1 3rd Interreactor Heater, H-7	December 31, 2012
0091	CR-3 Charge Heater	December 31, 2012
0092	CR-3 1st Reheat Heater, H-5	December 31, 2012
0082	Boiler 17	December 31, 2012
0080	Boiler 15	December 31, 2012
0073	Alky HM-2 Heater	December 31, 2012
0662	VF-4 Charge Heater, H-28	December 31, 2012
0664	DU-4 Charge Heater, H-24	December 31, 2014
0617	DCU Charge Heater, H-20	December 31, 2014
0014	HCU Fractionator Reboil, H-3	December 31, 2016
0024	DU-1 Primary Heater South, F-301	December 31, 2016
0025	DU-1 Secondary Heater North, F-302	December 31, 2016
0081	Boiler 16	December 31, 2016
0083	Boiler 18	December 31, 2016
0095	DHT Charge Heater	December 31, 2016
0028	DU-2 Lube Crude Heater F-200	December 31, 2016
0029	DU-2 Mixed Crude Heater West, F 202	December 31, 2016
0030	DU-2 Mixed Crude Heater East, F-203	December 31, 2016
0084	CR-2 North Heater	December 31, 2016
~~0017~~0661	~~BEU HM-1~~ CR-2 South Heater	December 31, 2016~~2012~~

(Source: Added at 33 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on July 23, 2009, by a vote of 5-0.



John T. Therriault, Assistant Clerk
Illinois Pollution Control Board