

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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. )

NOTICE OF FILING

To:

John T. Therriault, Assistant Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
Suite 11-500  
100 West Randolph  
Chicago, Illinois 60601

Persons included on the  
**ATTACHED SERVICE LIST**

PLEASE TAKE NOTICE that we have today filed with the Office of the Clerk of the Pollution Control Board **MIDWEST GENERATION'S QUESTIONS FOR AGENCY WITNESSES.**

  
\_\_\_\_\_  
Kathleen C. Bassi

Dated: September 15, 2008

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**CERTIFICATE OF SERVICE**

I, the undersigned, certify that on this 15<sup>th</sup> day of September, 2008, I have served electronically the attached **MIDWEST GENERATION'S QUESTIONS FOR AGENCY WITNESSES** upon the following persons:

John T. Therriault, Assistant Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
Suite 11-500  
100 West Randolph  
Chicago, Illinois 60601

and electronically (except for Matthew J. Dunn and Alec M. Davis) and by first class mail, postage affixed upon persons included on the **ATTACHED SERVICE LIST**.

  
\_\_\_\_\_  
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**(R08-19)**

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MIDWEST GENERATION’S QUESTIONS FOR AGENCY WITNESSES

NOW COMES MIDWEST GENERATION, by and through its attorneys, SCHIFF HARDIN LLP, and, pursuant to the Hearing Officer’s Order (June 12, 2008), submits the following questions for the witnesses of the Illinois Environmental Protection Agency (“Agency”) to be addressed at the hearing in this matter scheduled for October 14, 2008:

Questions for Mr. Kaleel

1. Please explain the relationship between these proposed rules establishing reasonably available control technology (“RACT”)/reasonably available control measures (“RACM”) for the current ozone and fine particulate matter (“PM2.5”) national ambient air quality standards (“NAAQS”) and what may be required for the revised ozone and PM2.5 NAAQS.
2. What distinction, in the definitions or use, between industrial boilers, fossil fuel-fired boilers, and electric generating units (“EGUs”) does the Agency make or intend in this rule?
3. If there are no cement kilns in the nonattainment areas, why are cement kilns included in this rulemaking? Likewise, if there are no aluminum melting furnaces affected, why does the rule include that sector?
4. How will the limitation of a unit to only one emissions averaging plan in this rule interact with the averaging plan provisions of other rules? That is, is it the Agency’s intent for this rule to preclude participation or inclusion of a unit that is in an averaging plan under this rule from participating in averaging plans under other rules and vice versa?
5. In Section 217.150(a)(2), the regulatory language uses the word “emits.” How will the Agency determine whether a unit is subject to the rule? That is, how will the Agency determine whether a unit emits, as opposed to having the potential to emit, at the threshold levels?

6. Applicability 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 [Clean Air Interstate Rule] CAIR”) to electric generating units (“EGUs”). However, the federal rule underlying the Illinois CAIR has been overturned (assuming that 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. Does the Agency intend to amend the language in Subpart M? If so, how?
7. What does the Agency consider to be the nominal cost per ton for RACT for nitrogen oxides (“NOx”)?
8. Does a load shaving unit (Section 211.3475) include a peaker power plant?
9. Section 217.150(a) says, “The provisions of this Subpart and Subparts D, E, F, G, H, and M” of this Part apply to . . . 1) All sources. . . .” (Emphasis added.) Is it the Agency’s intent that all of these subparts actually apply to all sources in the specified geographic areas? Isn’t actually the Agency’s intent that only one subpart will apply to a unit or units at threshold sources, as determined by the characteristics of the unit?
10. The “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 NOx in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season.” Is it the Agency’s intent to expand the applicability of the rule in this way?
11. Is it the Agency’s intent that the proposed rule applies to areas designated nonattainment for either ozone or PM2.5?
12. What comprises the second compliance period if the first is May 1, 2010, through April 30, 2011, and then is subsequently on a calendar year basis? *See* Section 217.152.
13. How is the second sentence of Section 217.152(b) (“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 NOx emissions.” related to the compliance date?
14. Can 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?
15. What is an “applicable compliance period” referred to in Section 217.156(g)?
16. Does Section 217.156(k), which requires compliance certifications, recordkeeping, and reporting for Subpart M units pursuant to 40 CFR Part 96, supersede the other recordkeeping and reporting requirements of Section 217.156?

17. Does the Agency have information confirming that the stacks at affected units that are typically small can be tested safely, as required by Section 217.157?
18. Section 217.158(b) requires that averaging plans be submitted by May 1, 2010. What if a source decides in 2010 that it does not want to average, but in 2015 it decides that it does want to average? Is that source precluded from establishing an averaging plan? Is this a "once out/always out" provision?
19. What is the Agency's basis for establishing a rate of 0.08 lb/mmBtu rate for gas-fired industrial boilers greater than 100 mmBtu? (Section 217.164(a))
20. Based upon the proposed applicability language in Subpart M, Section 217.340, 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. Is the Agency amenable to amending Sections 217.340, 217.342, 211.3100, and 217.160, as follows:

Section 217.340      Applicability [Subpart M]

Notwithstanding 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<sub>x</sub> 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.

Section 217.342      Exemptions

- a) Notwithstanding 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<sub>x</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.
- b) Notwithstanding 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.

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 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<sub>x</sub> Trading Programs under Subpart D or E of Part 225.~~

Section 217.160      Applicability [Subpart D]

- 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 Section 225.230 of Part 225, ~~if such boilers or cogeneration units are subject to the CAIR NO<sub>x</sub> Trading Programs under Subpart D or E of Part 225.~~
21.      What is the basis for determining that the 0.09 lb/mmBtu rate at Section 217.344(a) is RACT?
22.      The Technical Support Document (“TSD”) indicates on page 130 that there are a total of 12 industrial boilers subject to the NO<sub>x</sub> SIP call affected by this proposed rule while the Statement of Reasons on page 10 states that there are 80 industrial boilers affected by the proposed rule. Are these additional 50 industrial boilers all less than 250 mmBtu?
23.      The 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. Are there fossil fuel-fired stationary boilers that are not EGUs that are subject to the rule?

Questions for Dr. Staudt

24.      Are NO and NO<sub>2</sub> the only components of NO<sub>x</sub>?
25.      Explain oxy-combustion. In your testimony, you say that NO<sub>x</sub> is reduced by reducing the amount of oxygen available for the nitrogen to combine with, yet oxy-combustion appears to provide even more oxygen in the combustion chamber.
26.      Your testimony suggests there are other post-combustion controls besides SCR and SNCR. What are those other types of post-combustion controls?
27.      Is SCR RACT? Or is it beyond RACT?
28.      Would a wet scrubber intended to reduce SO<sub>2</sub> be a NO<sub>x</sub> scrubber as well if the NO<sub>x</sub> were first oxidized? *See* Section 1.2.2, page 4 of the TSD.
29.      What does the following mean: “NO<sub>x</sub> emissions from residual oil-fire boilers can be controlled level by using residual fuel oil. . . .” (Emphasis added.) *See* Section 2.1, page 5 of the TSD.
30.      Is it the case that there are currently no wood-fired boilers that would be subject to the proposed rule?




31. Does the fact that pulverized coal is used in wall-fired boilers contribute to the NO<sub>x</sub> levels? *See* Section 2.2.1, page 9 *ff.* of the TSD.
32. Page 13 of the TSD says that Cleaver Brooks illustrates that with proper control, NO<sub>x</sub> emissions can be reduced, and page 15 of the TSD says that Cleaver Brooks illustrates that with proper retrofits, NO<sub>x</sub> emissions can be reduced. What are those “proper” controls and retrofits? How are they effective in reducing NO<sub>x</sub>? Who is Cleaver Brooks?
33. How do excess air and complete combustion affect safety? *See* Section 2.3.1, page 20 of the TSD.
34. Page 22 of the TSD refers to 100-600 hp boilers. How large are these boilers in terms of mmBtu heat input capacity?
35. Please describe the combustion tuning training requirement and where companies may obtain such training.
36. Regarding SNCR, the TSD says that there need to be several injection points to inject the reagent at proper temperatures for large boilers. What happens if the reagent is injected at an improper temperature? *See* page 30 of the TSD.
37. Why would the cost of SNCR on a wood-fired boiler be about the same as for a coal-fired boiler of the same size?
38. Looking at Table 2-12a, what is a “Wood Fired IPP”? In this same column, the table says that the fuels are “Biomass Wood/Coal.” What does this mean?
39. Page 30 of the TSD states, “For EGU’s SNCR capital cost is in the range of about \$15/KW, and in most cases NO<sub>x</sub> reductions in the range of about 30% are possible.” How does this translate to dollars per ton of NO<sub>x</sub> removed?
40. On page 36 of the TSD is a discussion of the cost of SCR; the TSD appears to essentially argue that a cost expressed in dollars per mmBtu is a better measure of RACT because an expression in dollars per ton removed depends upon baseline NO<sub>x</sub>. Please explain.
41. Have the cost calculations for industrial/commercial/institutional (“ICI”) boilers included retrofit issues?
42. It appears that the TSD includes a number of evaluations of cost-effectiveness of proposed rule from a number of different sources. What is the bottom line, *i.e.*, the Agency’s determination of the cost-effectiveness of the proposed rule, in at least 2006 dollars? *See* TSD pages 41-42.
43. What is the significance of the statement on page 126 of the TSD that “the [USEPA cost] model does not allow for differences in stack height, or explicitly distinguish between Part 60 and Part 75 systems”?

44. The TSD at page 126 suggests that opacity monitoring is required by this rule where a source, because of the size of the affected unit, must employ Part 75 monitoring. Is it the intent of this rule to require opacity monitoring? If so, why is opacity monitoring part of a NOx RACT rule?
45. What is a "point source"? *See* TSD page 130. Is the term defined in the rule?
46. The TSD states on page 131, "The NOx inventory was generated through the use of year 2005 annual emission reports submitted pursuant to 35 Ill. Adm. Code Part 234. For our purpose, year 2005, instead of year 2002, was selected because some sources have been either shut down or modified since 2002." What is the significance of 2002 that the TSD would explain using 2005 data instead?
47. Please explain the difference between Tables H-1 and I-1. Appendix pages 31 and 33.
48. In Appendix A, Table A-4, what does "703" in the first column mean?

Respectfully submitted,

MIDWEST GENERATION, LLC,

by:

  
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One of Its Attorneys

Dated: September 15, 2008

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