

## ILLINOIS POLLUTION CONTROL BOARD

IN RE THE MATTER OF:

NITROGEN OXIDES EMISSIONS FROM  
VARIOUS SOURCE CATEGORIES:  
AMENDMENTS TO 35 ILL. ADM. CODE  
PARTS 211 AND 217

)  
)  
) RO8-19  
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JAN - 5 2009

STATE OF ILLINOIS  
Pollution Control Board

TRANSCRIPT OF PROCEEDINGS had at the hearing  
held before the ILLINOIS POLLUTION CONTROL BOARD,  
100 West Randolph Street, Room 9-031, Chicago,  
Illinois, on the 9th day of December, A.D. 2008, at  
11:00 a.m.

1 PRESENT:

2 BOARD MEMBERS:

MR. TIMOTHY FOX, Hearing Officer

3 MR. THOMAS E. JOHNSON

MR. ANAND RAO

4 MS. ANDREA S. MOORE

MR. G. TANNER GIRARD

5 MR. GARY BLANKENSHIP

6 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,

7 (1021 North Grand Avenue East,

P.O. Box 19276,

8 Springfield, Illinois 62794),

BY: MS. GINA ROCCAFORTE and

9 MS. DANA VETTERHOFFER;

10 ILLINOIS ENVIRONMENTAL REGULATORY GROUP,

(215 East Adams Street,

11 Springfield, Illinois 62701),

BY: MR. ALEC M. DAVIS;

12 HODGE DWYER ZEMAN,

13 (3150 Roland Avenue,

P.O. Box 5776,

14 Springfield, Illinois 62705),

BY: MS. KATHERINE D. HODGE;

15 SCHIFF HARDIN, LLP,

16 (6600 Sears Tower,

Chicago, Illinois 60606),

17 BY: MS. KATHLEEN C. BASSI.

18  
19 REPORTED BY MARGARET R. BEDDARD, CSR.

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1           HEARING OFFICER FOX: Good morning everyone and  
2 welcome to this Illinois Pollution Control Board  
3 hearing. My name is Tim Fox, and I'm the hearing  
4 officer for this rulemaking proceeding entitled  
5 Nitrogen Oxides Emissions from Various Source  
6 Categories: Amendments to 35 Illinois Administrative  
7 Code Parts 211 and 217. The Board docket number for  
8 this rulemaking is RO8-19. It was filed by the  
9 Illinois Environmental Protection Agency on May 9 of  
10 2008, and the Board accepted it for hearing in an  
11 order dated June 5 of this year. Today we are, of  
12 course, holding the second hearing, the first of  
13 which took place October 14, 2008, in Springfield.

14           I want to very quickly introduce some of  
15 the persons who are present here today from the  
16 Board. Two persons to my left is the Board's acting  
17 chairman Dr. G. Tanner Girard. At my right -- my  
18 immediate right is Board member Thomas E. Johnson.  
19 And we are pleased to welcome our newest Board member  
20 Gary Blankenship who began his term on the Board on  
21 December 1, just last week. So we wanted to make an  
22 extra point of introducing him to you. Also, to my  
23 left is Anand Rao of the Board's technical staff.

24           The proceeding is governed, as always, by

1 the Board's procedural rules. Under those, all  
2 information that is relevant and that is not  
3 repetitious or privileged will be admitted into the  
4 record. Please note that any questions posed today  
5 either by the members of the Board or its staff are  
6 intended solely to help develop a clear and complete  
7 record for the Board's ultimate decision and do not  
8 reflect any judgment or conclusion regarding the  
9 proposal or the testimony.

10 The Board received pre-filed testimony for  
11 this second hearing all filed on November 25 of 2008  
12 from the following persons, on behalf of Saint-Gobain  
13 Mr. Steven Smith, from ConocoPhillips Mr. David Dunn,  
14 from U.S. Steel Mr. Larry Siebenberger --

15 Sir, am I pronouncing your name correctly?

16 MR. SIEBENBERGER: That's correct.

17 HEARING OFFICER FOX: Great.

18 -- and Mr. Blake Stapper from Midwest  
19 Generation, Mr. Scott Miller, and Mr. Kent  
20 Wanninger --

21 And am I pronouncing that correctly?

22 MR. WANNINGER: Yes.

23 HEARING OFFICER FOX: Very good.

24 -- and from IERG, the Environmental

1 Regulatory Group, testimony by Ms. Deirdre Hirner and  
2 Mr. David Kolaz. The Board also received a comment  
3 from an Arselor Natel filed by Christina Archer. Ms.  
4 Archer, I believe is here and had indicated that,  
5 while she intended to observe, she did not intend to  
6 offer testimony or be sworn in to provide it.

7 Am I correct, Ms. Archer?

8 MS. ARCHER: Yes, you are.

9 HEARING OFFICER FOX: Excellent. Thank you very  
10 much.

11 My understanding in discussing the  
12 procedural issue before hearing of the order of the  
13 testimony was that those entities that had pre-filed  
14 testimony had reached an agreement without opposition  
15 from the Agency on the order in which they might  
16 proceed. My understanding was that Mr. Smith on  
17 behalf of Saint-Gobain would go first, that Mr. Dunn  
18 on behalf of ConocoPhillips -- my mistake -- that  
19 IERG would be the second testimony that was addressed  
20 here at hearing, that, third, Mr. Dunn would be  
21 taking questions on behalf of ConocoPhillips, fourth,  
22 we would hear from the witnesses for U.S. Steel, and  
23 that finally we would conclude with the testimony and  
24 questions based on it of Midwest Generation.

1 Am I correct, Ms. Roccaforte? The Agency  
2 had no opposition to that order?

3 MS. ROCCAFORTE: Correct.

4 HEARING OFFICER FOX: Very good.

5 Did I misunderstand that in any way in  
6 terms of the order? Very good.

7 If other participants are here today who  
8 would like to testify, there is a sign-up sheet just  
9 inside the door behind Ms. Hirner. And, like any  
10 other witnesses, those who appear today and sign in  
11 without having pre-filed testimony will be sworn in  
12 and will be subject to cross-examination. And we can  
13 address that in the event that someone does wish to  
14 do that after the conclusion of the pre-filed  
15 testimony and all of the questions that are based  
16 upon it.

17 I would ask for the court reporter's  
18 benefit -- of course, many of you are veterans of  
19 many, many of these proceedings -- to speak as  
20 clearly as possible. We don't have a public address  
21 system, of course. I think the size of the room and  
22 the arrangement ought to work well for making one  
23 another heard. Please avoid talking at the same time  
24 as any other person so that she can make the cleanest

1 possible transcript of this proceeding.

2 Are there any questions about our order of  
3 procedure or any other procedural issue? Very good.

4 Ms. Roccaforte, in speaking with you before  
5 the hearing, I understand that you did have an issue  
6 that you wanted to address before we got under way?

7 MS. ROCCAFORTE: Yes. The issue of a third  
8 hearing has arisen, and the Agency has been in  
9 negotiations with a number of companies regarding  
10 some amendatory provisions. The Agency would not  
11 object to having a third hearing and possibly either  
12 filing or explaining those amendatory provisions.

13 HEARING OFFICER FOX: Ms. Roccaforte, here is  
14 what I would propose to do. I want to make this  
15 clear to the participants. I'd like to reserve  
16 ruling on scheduling a third hearing in this  
17 proceeding. We may have questions that are properly  
18 addressed either in pre-filed testimony for a third  
19 hearing or in post-hearing comments. We may have  
20 documents that need to be filed on the basis of  
21 questions today or other issues to address. What I  
22 would like to do at the conclusion of the hearing is  
23 address that issue much more fully at that time and  
24 determine whether to hold a hearing and to address

1 issues such as Ms. Roccaforte suggested, including  
2 the scope of it and any pre-filing deadlines or other  
3 procedural issues that may relate to a third hearing  
4 that the Board scheduled.

5           What I would like to do in the interest of  
6 making this planning process -- or scheduling process  
7 as easy as possible is propose hypothetical dates on  
8 which a third hearing might be scheduled. The  
9 Board's hearing schedule is available on the web, and  
10 I've tried to work around that as well as I could.  
11 What the Board would propose as a potential site for  
12 a third hearing, if one is scheduled, is to hold it  
13 in Metro East during the day of Wednesday,  
14 February 4.

15           And I note also -- Since this newly filed  
16 rulemaking 9-19 was received by the Board on  
17 December 1 and it also addresses air and it seems  
18 likely to involve some, if not many, of the same  
19 participants as this proceeding, what the Board would  
20 like to do in the interest of administrative  
21 efficiency and good timing is schedule the first  
22 hearing on that new air cleanup proposal, which I  
23 believe has been docketed as R09-19 on the preceding  
24 day of Tuesday, February 3, so that we could, in



1 effect, take care of a hearing in two dockets in the  
2 same community on consecutive days.

3 Again, I offer that solely as a  
4 hypothetical in the hope that during lunch breaks or  
5 other times you might be able to examine your  
6 calendars and indicate. If that is utterly  
7 unworkable, I do have some alternatives that we could  
8 discuss. That is solely the scheduling and  
9 procedural matter of a third hearing in this  
10 proceeding. But rest assured that before we adjourn  
11 we will address those issues, including, as I said,  
12 the scheduling and any scope, any pre-filing  
13 deadlines, and other issues that are required to be  
14 addressed when we may have the better sense of what  
15 the appropriate scope and subject of it may be.

16 Any questions about that at all? I don't  
17 want to move forward if there are. We've come to the  
18 point where we can begin, if there are no other  
19 questions, with our first witness Mr. Smith on behalf  
20 of Saint-Gobain.

21 I should jump back, and I'm sorry to do  
22 this. Off the record before the hearing, I did  
23 informally discuss with the various participants here  
24 the Board's procedural rules, which do provide that

1 any pre-filed testimony is admitted into the record  
2 as if it is read. And I expressed the preference,  
3 frankly, that because it has been in the record and  
4 accessible through the Board's website for two weeks  
5 that, in effect, there would be little point, if any,  
6 in rereading it into the record. While if anyone  
7 wished to begin with a brief introduction or short  
8 summary of their testimony, that certainly could be  
9 beneficial. But it was my preference simply after  
10 such a brief summary or introduction just to proceed  
11 to any questions, Mr. Smith and the other witnesses,  
12 that the participants may have for you.

13 So with that, Mr. Smith, if you would like  
14 to begin with an introduction or a summary of any  
15 kind. Why don't we have the court reporter swear you  
16 in first. Then we can get underway with that.

17 MR. SMITH: Well, actually I'd like to start by  
18 introducing Ty Sibbitt, who's our in-house legal  
19 counsel. He'll be speaking on behalf of  
20 Saint-Gobain.

21 HEARING OFFICER FOX: Very good. Just,  
22 Mr. Smith. And I'm sorry to interrupt. In the event  
23 that there is a question for you, Mr. Smith, why  
24 don't we just have you both sworn in so that you'd be

1 prepared to take that question without interruption.

2 MR. SMITH: That would be fine.

3 HEARING OFFICER FOX: Great. Thank you very  
4 much.

5 (WHEREUPON, the witnesses were duly  
6 sworn.)

7 MR. SIBBITT: Thank you for the opportunity to  
8 be here today. As Steve indicated, my name is Ty  
9 Sibbitt. I'm in-house counsel with Saint-Gobain  
10 Containers. We appreciate the opportunity to be here  
11 and speak today.

12 We have submitted our post-hearing comments  
13 on November 11 -- on November 25 in which we  
14 addressed a specific concern we have with the  
15 proposed rule. In particular, we had asked for an  
16 exception on when the compliance date would be both  
17 for the emissions standard and for the installation  
18 of CEMS and asked for a very narrow exception which  
19 allowed us to agree to postpone the date for  
20 compliance with both the emissions rate and  
21 installation of CEMS until the end of 2014. If we  
22 have come to a written agreement with the State of  
23 Illinois prior to the end of 2009 for achieving a  
24 much lower emissions rate, we had asked that that

1 rate would have to be less than 30 percent of the  
2 current proposed 5.0. So anything under 1.5.

3 The reason we're here today is basically  
4 just to take any questions on why we have asked for  
5 this exception. We spoke with staff and had some  
6 good conversations on that. But I'm really here just  
7 to hold that open for questions and be happy to  
8 answer any questions you have on why we have proposed  
9 this exception.

10 HEARING OFFICER FOX: Very good. Mr. Sibbitt,  
11 thanks. I suspect there probably is at least one  
12 question.

13 When you would like to be recognized for a  
14 question, please just raise your hand so that I can  
15 recognize you. When you first pose a question, just  
16 in the interest of making sure that the court  
17 reporter can identify you, please give your name and  
18 any organization that you might be associated with  
19 for the benefit of the record.

20 For Mr. Sibbitt or Mr. Smith on behalf of  
21 Saint-Gobain, is there any question? Ms. Roccaforte?

22 MS. ROCCAFORTE: I'm Gina Roccaforte. I'm  
23 assistant counsel on behalf of the Illinois  
24 Environmental Protection Agency. With me today is

1 Dana Vetterhoffer, assistant counsel; Mr. Robert  
2 Kaleel, manager of the Bureau of Air; and Dr. James  
3 Staudt, Andover Technology Partners. Also, not at  
4 the table with us, is Yoginder Mahajan and Vir Gupta.

5 Mr. Sibbitt, in the comments Saint-Gobain  
6 submitted, you state that the installation of  
7 alternative NOx control technology is currently being  
8 discussed with the State of Illinois. In what  
9 context are these discussions taking place?

10 MR. SIBBITT: These discussions currently are  
11 taking place in the context of the negotiations of a  
12 consent decree with the State of Illinois and the  
13 Environmental Protection Agency.

14 MS. ROCCA FORTE: And what are the issues  
15 involved with that?

16 MR. SIBBITT: There are various issues. But, in  
17 particular, it has to do with NOx compliance and TOx  
18 compliance at various facilities throughout our  
19 Saint-Gobain Container Company.

20 MS. ROCCA FORTE: Including facilities in  
21 Illinois?

22 MR. SIBBITT: Correct.

23 MS. ROCCA FORTE: When does Saint-Gobain expect  
24 these negotiations to be completed?

1           MR. SIBBITT: Good question. We are -- We are  
2 currently very involved in these negotiations. I  
3 think we've got an agreement in principle on many  
4 important parts of the technology. There's legal  
5 issues. There's still a few open issues. I don't  
6 know that I can give you a specific date. And we  
7 think -- We would hope it would be sometime early  
8 2009 if it is going to be completed. But that is the  
9 reason we put the deadline at the end of the year  
10 2009 to have some sort of written agreement in order  
11 to get this exception. If we don't have something by  
12 the end of 2009, then we understand that we would be  
13 subject to the 5.0 and the time frame in the current  
14 proposed rule.

15           MS. ROCCAFORTE: And what commitment is  
16 Saint-Gobain making through these negotiations?

17           MR. SIBBITT: Again, we're still discussing  
18 that. But right now the commitment that we had  
19 discussed with the State of Illinois and the other  
20 people involved is that by the end of 2014 we would  
21 install -- And we're currently talking about SCR  
22 technology, which would go on the end of our stacks  
23 which would allow us to get a much lower emissions  
24 rate. And that rate we are currently discussing

1 would be a 1.3 pounds-per-ton rate.

2 MS. ROCCAFORTE: Is there a chance that these  
3 controls could be deferred beyond 2014?

4 MR. SIBBITT: Under the current terms that we're  
5 discussing, no, that would be our deadline for having  
6 those in place.

7 MS. ROCCAFORTE: Are there any circumstances  
8 whereby the consent decree could terminate?

9 MR. SIBBITT: Well, according to the terms of  
10 any consent decree, they have a specified life. As  
11 most consent decrees, they would terminate upon their  
12 own terms when all conditions of the consent decree  
13 have terminated. Currently, because it simply would  
14 go out well past 2014 because that is the deadline  
15 for installing these technologies.

16 MS. ROCCAFORTE: And you indicated you would be  
17 installing SCR's. Will Saint-Gobain be required to  
18 install CEMS?

19 MR. SIBBITT: That is correct. Also by that  
20 deadline date, yes.

21 MS. ROCCAFORTE: For the court reporter, that is  
22 C-E-M-S, continuous emissions monitoring system.

23 What emission limit is achievable with this  
24 equipment, the SCR?

1           MR. SIBBITT: If I may defer, Steve is more of  
2 our technical person. My understanding is that the  
3 SCR would be designed for each particular furnace in  
4 each particular location. I cannot give you a  
5 specific number.

6           MR. SMITH: Currently SCR's are not operating on  
7 glass container furnaces with one exception. There's  
8 one that's just started up in California. So the  
9 level that you're asking about is unknown.

10          MR. SIBBITT: Again, we would commit to the no  
11 higher than 1.3 as part of the consent decree.  
12 That's what we're currently discussing.

13          MS. ROCCAFORTE: And you would be installing the  
14 CEMS in conjunction with the SCR?

15          MR. SMITH: Yes.

16          MS. ROCCAFORTE: And is Saint-Gobain willing to  
17 work with the Illinois EPA on the regulatory  
18 provisions that you've proposed in your comments?

19          MR. SIBBITT: Yes.

20          MR. SMITH: Yes.

21          MS. ROCCAFORTE: Thank you. I have nothing  
22 further.

23          HEARING OFFICER FOX: Any further questions for  
24 either Mr. Sibbitt or Mr. Smith on behalf of



1 Saint-Gobain?

2 That wrapped things up very quickly.  
3 Gentlemen, thanks for your time and your testimony  
4 today.

5 MR. SIBBITT: Thank you for your time and  
6 consideration.

7 HEARING OFFICER FOX: Very well. That  
8 brings us, according to the order we've described  
9 earlier, to IERG, which has pre-filed testimony again  
10 both by Ms. Hirner and Mr. Kolaz today.

11 It's my understanding, Mr. Davis, that you  
12 are, in effect, going to handle the questions for  
13 those two witnesses?

14 MR. DAVIS: Exactly.

15 HEARING OFFICER FOX: I understand also,  
16 however, that you had a brief introduction or summary  
17 that you wish to offer on behalf of IERG?

18 MR. DAVIS: Good morning. My name is Alec  
19 Davis. I'm the general counsel of the Illinois  
20 Environmental Regulatory Group, IERG. I would like  
21 to thank the Board on behalf of IERG for providing us  
22 with this opportunity today. I have with me copies  
23 of the pre-filed testimony of both Deirdre Hirner and  
24 David J. Kolaz to be entered.

1 HEARING OFFICER FOX: Thank you very much.

2 As you've heard Mr. Davis indicate, these  
3 are copies of the pre-filed testimony filed on  
4 November 25 on behalf of IERG by Ms. Hirner and  
5 Mr. Kolaz. Would there be a motion to admit those as  
6 hearing exhibits, Mr. Davis?

7 MR. DAVIS: Yes, I would so move.

8 HEARING OFFICER FOX: Is there any objection to  
9 admitting those as what would be Hearing Exhibits  
10 No. 5 or 6 in this proceeding? Neither seeing nor  
11 hearing any, they will be so marked. Ms. Hirner,  
12 your testimony marked as Exhibit No. 5. Mr. Kolaz,  
13 your testimony marked, of course, then as Exhibit  
14 No. 6 in this proceeding.

15 Please go ahead, Mr. Davis.

16 MR. DAVIS: For the sake of accuracy, I would  
17 like to alert everyone to a mistake in the testimony  
18 of David J. Kolaz. I apologize. And I appreciate  
19 the Agency drawing this to our attention. On page 21  
20 under subpart D there's the word "after." It reads,  
21 "After January 1, 2002." It should be, "Before."  
22 The complete sentence reads, "The proposed rule  
23 restricts the use of units to be used in averaging  
24 plans to those that commence operation before

1 January 1, 2002." Again, I apologize.

2 Then, lastly, before I turn it over to the  
3 witnesses, I wanted to ask, for the sake of  
4 developing a complete record, that the witnesses be  
5 allowed to field questions as a panel rather than  
6 have questions directed at a particular witness  
7 thereby allowing the individual who feels can most  
8 completely address the question to do.

9 HEARING OFFICER FOX: I neither see nor hear an  
10 objection. We've certainly done that, in effect,  
11 with Saint-Gobain. That may help us move more  
12 expeditiously. I'm assuming you're asking whether  
13 the court reporter then could swear them in  
14 simultaneously and have them prepared to answer  
15 questions?

16 MR. DAVIS: Yes. And I'll introduce them  
17 quickly first though.

18 HEARING OFFICER FOX: Please go ahead.

19 MR. DAVIS: And both of them would like to offer  
20 a brief statement.

21 To my right is Deirdre K. Hirner, the  
22 executive director of IERG. To my left is David  
23 Kolaz, who's testifying today in his capacity as a  
24 consultant for IERG. And then you can swear them in.

1 HEARING OFFICER FOX: Very good.

2 (WHEREUPON, the witnesses were duly  
3 sworn.)

4 MR. DAVIS: Ms. Hirner, please go ahead.

5 MS. HIRNER: Thank you very much. I'm pleased  
6 to have the opportunity to be here today on behalf of  
7 IERG so that I can answer any questions that the  
8 Board may have. I also have been very pleased --  
9 IERG has been very pleased to have the opportunity to  
10 work with the Illinois Environmental Protection  
11 Agency on this rulemaking. We think it's always very  
12 beneficial whenever the regulators and the members of  
13 the regulating community can get together to talk  
14 about proposed rulemakings.

15 You have my pre-filed testimony, and I  
16 believe the essence of my testimony goes to this  
17 being a NOx RACT rule with the words being --  
18 operative word, I guess, being reasonably achievable  
19 control technologies. IERG's concerns are that some  
20 of the proposed requirements may not be reasonable  
21 considering the timing of the rule and the time  
22 frames that are established within the rule. In  
23 essence, I'll be pleased to answer any questions  
24 about that that the Board or the Agency or others may

1 have.

2 HEARING OFFICER FOX: Very good. Thank you,  
3 Ms. Hirner

4 MR. KOLAZ: On behalf of the Illinois  
5 Environmental Regulatory Group, I, too, thank you for  
6 providing the opportunity for me to be here today to  
7 present this testimony and engage in this important  
8 discussion regarding the Agency's proposed rule which  
9 will further regulate emissions and nitrogen oxides.

10 The fundamental purpose of my testimony is  
11 to show how the proposed rule can and should be  
12 modified to resolve several fundamental flaws and  
13 inconsistency it currently contains while still  
14 meeting its stated purpose. It is clear to IERG and  
15 its members that the Agency has expended considerable  
16 effort to identify, evaluate, and formulate the  
17 various elements that are essential to compiling a  
18 rule to the type that is proposed. However, it is  
19 equally clear that in composing its rule the Agency  
20 has not ensured that the various elements of the rule  
21 are in harmony. The rule contains very strict  
22 emission limits coupled with a compliance time line  
23 that together creates an obligation that would be  
24 untenable to affected entities in the best of times.

1           My testimony begins by reviewing the  
2     purpose of the rule as presented in the Agency's  
3     Statement of Reasons and in the testimony the Agency  
4     provided at the first hearing in this matter. By  
5     understanding this purpose, IERG is able to offer  
6     alternatives that would ensure that the Agency's  
7     goals are attained. As my testimony will show, the  
8     principal factor in the design of the Agency's rule  
9     is the Clean Air Act requirement pertaining to  
10    reasonably available control technology or what's  
11    termed RACT. That is not to say that the emission  
12    reductions that would come from the rule are not  
13    important. In formulating the rule, the Agency did  
14    not seek a specific emission reduction, but instead  
15    sought to impose RACT and use whatever emission  
16    reduction ensued in their attainment plan. This  
17    observation is not intended as a criticism of the  
18    Agency's approach. But by knowing that the rules  
19    design criteria is based on the goal of achieving  
20    RACT while using the resulting emissions reductions  
21    in the attainment demonstration, IERG is able to  
22    suggest alternate emission limits as RACT while  
23    producing commensurate emission reductions to satisfy  
24    the Agency's attainment demonstration.

1           What my testimony will show is IERG's  
2    approach achieves the Agency's goals in a time frame  
3    that is consistent with the statutory requirements in  
4    most cases and will meet the compliance date for  
5    emission reductions that the Agency has proposed in  
6    its rule. In contrast, the Agency seeks stringent  
7    emission reductions that cannot be achieved in the  
8    statutory time frame or by its own proposed  
9    compliance date.

10           Finally, IERG believes that its suggestions  
11   are compatible with the attainment demonstration that  
12   the Agency has already prepared. And I'm prepared  
13   now to answer questions.

14           HEARING OFFICER FOX: Very good.

15           Mr. Davis, anything further before we go to  
16   entertain questions for your witnesses?

17           MR. DAVIS: No. I think we're all set.

18           HEARING OFFICER FOX: Very good. Very good.  
19   I'm sure there are bound to be a couple of questions  
20   for them. We can begin right away, Mr. Davis, if you  
21   are, indeed, all set.

22           Ms. Roccaforte?

23           MS. ROCCAFORTE: I'll start out with some  
24   questions for Ms. Hirner based on the time line in

1 your testimony. Beginning on page 3, regarding  
2 IERG's participation in the rulemaking process, did  
3 you and your staff prepare the time line?

4 MS. HIRNER: I guess it was a combination of  
5 myself and my staff members. In order to kind of  
6 bring a focus to this, I think I'll give you a little  
7 explanation of IERG's standard operating procedure so  
8 that you can kind of know how the time line came into  
9 being.

10 It was I who chose to use the time line  
11 because it is a complex issue. For me, that was a  
12 way for me to get my head around all of the things  
13 that we had stepped through as we worked with the  
14 Agency on this rulemaking. So it's IERG's standard  
15 practice that any time that we have a meeting with  
16 the -- a meeting with the Agency -- Not just the  
17 Illinois EPA, but any agency or any other  
18 associations. Any time that we have internal work  
19 group meetings, we prepare memos about what went on  
20 at those meetings. We put technical information into  
21 those memos. So we prepare them in a very detailed  
22 fashion.

23 Then many of the memos -- If I have  
24 attended the meeting, many of the memos in regards to



1     air -- Because I've been primarily assigned that  
2     function since I've been here. I will prepare many  
3     of those memos myself. Or if I don't prepare the  
4     memo and one of the staff does, then I review each  
5     memo and will extensively edit the memo either taking  
6     something out or adding something that I believe that  
7     wasn't covered or saying, you know, "I remember this  
8     this way. Can we talk about this?" So the  
9     information that we provide to the members is as  
10    complete as can be and as an accurate assessment of  
11    what went on at the meeting that we are possibly able  
12    to provide. Then those memos are e-mailed to all of  
13    our members and to other employees at their  
14    facilities who have very specific interests in a  
15    particular one of the media, that being air, land, or  
16    water or all of the above.

17           In each quarter IERG has a quarterly  
18    meeting, and I do prepare the project memo -- the  
19    quarterly project memo for the air group. That's the  
20    one I have been working on for the past  
21    three-and-a-half years since I have returned to IERG.  
22    I take those very detailed memos and prepare a  
23    synopsis of what -- you know, of those so that our  
24    members can, you know, very quickly review that

1 update memo. And they're usually, like, about 15  
2 single-spaced pages, just to let you know. So they  
3 get an idea of what IERG has been involved with  
4 during the past quarter. In that regard, I have  
5 prepared those memos.

6 We highlight the activities of the quarter,  
7 and the way we highlight them is by date with the  
8 meetings. So I guess the time line originated with  
9 my memos. I did ask one of my staff members to take  
10 all of that information and, you know, put it in a  
11 big document for me so that -- you know, because we  
12 have many documents over the course of the years. It  
13 was Mr. Davis who did that for me. Then I went  
14 through and edited it and removed some of the things  
15 because it would have been much longer than it is now  
16 had I included all of the communications between IERG  
17 and its own work groups.

18 MS. ROCCAFORTE: So it sounds like it's a  
19 culmination of your interpretations of what took  
20 place at meetings and then it's edited by some staff  
21 members in conjunction with your memos?

22 MS. HIRNER: It's edited by me. I'm pretty much  
23 the final edit on anything that walked out the door  
24 of IERG.

1 MS. ROCCAFORTE: And are these ever shared with  
2 the Agency?

3 MS. HIRNER: On occasions. We have, in fact,  
4 shared some of the memos with the Agency. But these  
5 are really internal work product. They are designed  
6 to tell our members what we do. You know, we are a  
7 member organization. The members pay dues. They  
8 want to know that they're getting something for their  
9 membership. So depending upon -- You know, we have  
10 shared -- I think I mentioned in here. Although I  
11 may not be remembering exactly -- some of the NOx  
12 RACT rules that we have put together. When we would  
13 have a meeting -- a work group meeting -- And the  
14 Agency would attend a work group meeting that IERG  
15 had. If we had some alternative numbers that we were  
16 proposing, the documents that we handed out to our  
17 members at that meeting was handed over to the Agency  
18 so that they could follow along.

19 So, yes, some of the things we do share  
20 with the Agency. Some of them are just very internal  
21 members. And those who know me know I can be a  
22 little candid sometimes. Perhaps I don't share  
23 those. So, in essence, some have. Some haven't.

24 MS. ROCCAFORTE: Regarding the time line, would

1     you say that the positions you attribute to the  
2     Agency were static, or did they evolve over time as  
3     the Agency considered new information and feedback  
4     from stakeholders?

5           MS. HIRNER: I think that -- I believe I pointed  
6     it out or stated it this way in my pre-filed  
7     testimony. On some of the issues the Agency did,  
8     indeed, change its position. But there were certain  
9     points that industry raised at the beginning of the  
10    process as being problematic, and those issues that  
11    have remained problematic are what they are.

12          MS. ROCCAFORTE: On page 3, from your notes from  
13    a meeting on May 26, 2005, you stated that the Agency  
14    was considering, "Tighter RACT applicability for both  
15    VOC and NOx with expanded geographical areas." Does  
16    the Agency's proposal now before the Board require  
17    tighter RACT applicability or expanded geographical  
18    areas?

19          MS. HIRNER: You might have to repeat that  
20    question again. Turn me back to which one we're  
21    looking at.

22          MS. ROCCAFORTE: Page 3, the meeting from  
23    5-26-2005.

24          MS. HIRNER: Okay.

1 MS. ROCCAFORTE: It discusses the work group  
2 meeting. "The Agency described potential controlled  
3 programs under consideration, among them tighter RACT  
4 applicability for both VOC and NOx with expanded  
5 geographical areas." Does the proposal now before  
6 the Board require tighter RACT applicability or  
7 expanded geographical areas?

8 MS. HIRNER: That particular notation was before  
9 it really got into specific rulemaking or, you know,  
10 having seen specific proposals. At that time -- And  
11 I think it becomes clear as you progress through the  
12 time line. I believe that that expanded geographical  
13 area referred to in this bullet point was that early  
14 on the Agency believed these RACT requirements would  
15 be necessary statewide, that being the expanded  
16 geographical area.

17 The proposal currently before the Board --  
18 And I think, again, it comes out over time and it  
19 comes out in the discussions that we've had in the  
20 time line. As IERG maintained very early on, the  
21 proposal was not needed to be implemented statewide.  
22 And I think that's what we see before us now is a  
23 proposal that is not statewide RACT

24 MS. BASSI: Can I build on that?

1 HEARING OFFICER FOX: Ms. Bassi, please go  
2 ahead.

3 MS. BASSI: I'm Kathleen Bassi with Schiff,  
4 Hardin. I'm here on behalf of Midwest Generation.

5 Ms. Hirner, do you agree that the rule as  
6 currently proposed is limited to the non-attainment  
7 areas?

8 MS. HIRNER: That's my understanding as I read  
9 it. It is a rule that is limited to the  
10 non-attainment areas.

11 MS. BASSI: Are you familiar with the extent of  
12 the non-attainment areas in the Metro East area?

13 MS. HIRNER: Above my pay grade. If you're  
14 asking me if I can name you each and every county  
15 that's included in Metro East, I can't.

16 MS. BASSI: Mr. Kolaz, can you?

17 MR. KOLAZ: Yes. In the case -- Well, of  
18 course, in the case of Chicago, the fine particulate  
19 non-attainment area and the ozone non-attainment area  
20 are identical. But that's not the case in Metro  
21 East. In the case of Metro East, there's a township  
22 in Randolph County that is included as being  
23 non-attainment for fine particulate. And there's a  
24 county -- Jersey County that's considered attainment

1 for fine particulate, but not attainment for ozone.

2 MS. BASSI: Is Randolph County attainment for  
3 ozone?

4 MR. KOLAZ: Yes, it is.

5 MS. BASSI: Is it subject to the annual portion  
6 of this rule as proposed?

7 MR. KOLAZ: The way the rule is structured  
8 there's not a distinction made for either Randolph  
9 County or Jersey County. In the case of Randolph  
10 County -- Actually it's a specific township in  
11 Randolph County. That township would be -- Although  
12 it's non-attainment specifically for fine  
13 particulate, it would also have to achieve the  
14 ozone-based requirements of the rule.

15 MS. BASSI: Thank you.

16 Thank you for allowing my to interrupt.

17 MS. ROCCAFORTE: Just to clarify, the proposal  
18 before the Board does not apply statewide, correct?

19 MS. HIRNER: That's my understanding as I read  
20 it.

21 MS. ROCCAFORTE: In discussing the work group  
22 meeting on 5-26-2005, would you agree that this was  
23 an example of the rule evolving based on information  
24 being brought available to the Agency?

1 MS. HIRNER: Well, I would imagine. Yeah, you  
2 could characterize it that way.

3 MS. ROCCA FORTE: Do you think it's beneficial to  
4 IERG and other stakeholders for the Agency to share  
5 its position on evolving issues with stakeholders  
6 before these positions are final?

7 MS. HIRNER: Absolutely.

8 MS. ROCCA FORTE: The time line makes repeated  
9 references to modeling. Could you please explain why  
10 modeling is an issue here?

11 MS. HIRNER: I'll give the -- maybe the 2 cent  
12 answer, and somebody else may have to add on to that  
13 for me. But my basic understanding is, when we talk  
14 about requirements for emissions control, the way we  
15 get into the end point of what an emissions control  
16 should be or what the desired goal is for an  
17 emissions reduction it's based on what the models  
18 show.

19 MS. ROCCA FORTE: Would you say that's true even  
20 if there is a specific statutory requirement to  
21 implement certain technology?

22 MS. HIRNER: I may have to take that question  
23 down and reflect on it because I don't think I can  
24 answer that. I'm not quite following your reasoning.



1 MS. ROCCAFORTE: You're discussing modeling to  
2 demonstrate compliance with emission limits. I'm  
3 just wondering if there's a specific statutory  
4 requirement, for example, for implementing RACT or  
5 NOx -- Let me start over. If there's a specific  
6 requirement in the Clean Air Act, for example, under  
7 Section 182(f) that requires RACT for major sources  
8 of NOx emissions, does modeling have to demonstrate  
9 that requirement?

10 MS. HIRNER: That's more technical than I'm  
11 capable of answering. I'll let Dave answer that.

12 MR. KOLAZ: I could answer that for you. You're  
13 asking if the model is an issue? By what you're  
14 saying now, I assume you're saying is the model a  
15 factor in determining RACT? Is that your question?

16 MS. ROCCAFORTE: Correct.

17 MR. KOLAZ: In the case of ozone RACT, it is not  
18 because the way the Clean Air Act is written is major  
19 sources in the ozone non-attainment areas must  
20 implement RACT regardless of the impact -- the  
21 implementation RACT would have. There is no  
22 demonstration that it would even make a difference.  
23 However, in the case of fine particulate, modeling  
24 does have a role because the statute that requires

1     RACT for fine particulate, pollutants other than  
2     ozone, requires implementation of what's called  
3     reasonably available control measures. The  
4     obligation to implement reasonably available control  
5     measures has with it that it would expeditiously  
6     achieve attainment, and U.S. EPA has determined that  
7     to expeditiously achieve attainment means that those  
8     measures would advance the attainment date by one  
9     year.

10                 There's a couple ways to make that  
11     demonstration. One such way that U.S. EPA conveys in  
12     their rule regarding the implementation of fine  
13     particulate requirements is to conduct modeling  
14     wherein you would perform the model and obtain the  
15     results without the reasonably available control  
16     measures and determine the date that the model shows  
17     you would attain and then to implement the reasonably  
18     available control measures, rerun the model, and see  
19     if it advances it by one year.

20                 In summary, the obligation, in essence, for  
21     ozone is absolute -- absolute in the sense that RACT  
22     must be implemented. It's not absolute in the sense  
23     of what RACT is. In the case of fine particulate,  
24     it's more complex and could involve the use of

1 modeling.

2 MS. HIRNER: If I could add one thing because  
3 listening to Dave sparked something in my mind. One  
4 of the reasons that the modeling -- The components  
5 that I placed in the time line, the ones that I chose  
6 that referenced modeling, was, during the course of  
7 the rulemaking and developing the rule, on numerous  
8 occasions when I would meet with some of the staff of  
9 the Illinois EPA, particularly in meetings that  
10 involved the current bureau chief, it was  
11 explained -- or noted, I guess, by her over and over  
12 again that the modeling demonstrated that we had to  
13 have statewide RACT. The modeling demonstrates we  
14 have to have this. And so if you have -- or at least  
15 the way I perceive things, if someone comes to me and  
16 over and over explains to me that the modeling  
17 demonstrates that this has to be this, then I think  
18 that modeling must be an issue.

19 MR. RAO: May I ask a follow-up clarification  
20 question?

21 Ms. Hirner, on page 6 of your testimony  
22 under June 23, 2006 -- I think it's item number 3 --  
23 you note, "That recent modeling indicates that the  
24 level of controls proposed may well be beyond what is

1     necessary to demonstrate attainment." Could you tell  
2     us a little bit about who performed this modeling?  
3     Are you referring to IEPA's efforts, or is it  
4     something that one of your members performed this  
5     modeling?

6             MS. HIRNER: I can clarify that.

7             There is an organization called the Midwest  
8     Ozone Group that -- yes -- that various companies are  
9     members of, and IERG is a member of that group. That  
10    group contracted with Alpine Geophysics, I believe,  
11    and -- I can't recall. It contracted with Alpine  
12    Geophysics and another group -- you know, I'd be  
13    pleased to get that name for you of the modeling  
14    group -- to conduct a parallel modeling, to use some  
15    of the -- You know, they went back and forth and got  
16    numbers from LADCO. And I'm not exactly sure of the  
17    process. But that was who was performing the  
18    alternative modeling. And we would have meetings --  
19    usually teleconferences -- on the results of what  
20    Alpine Geophysics had achieved or they would  
21    determine when they conducted their modeling was  
22    presented to us.

23            Now, Dave can probably comment more  
24    thoroughly on the nature of that model because I

1 would sit in on those meetings and listen to them.

2 But, again, when it would come to a technical point,

3 I would have to ask someone who's an engineer because

4 it's not me.

5 MR. RAO: Mr. Kolaz, would you like to elaborate  
6 a little bit more?

7 MR. KOLAZ: I could by saying that the MOD group  
8 involved more than Illinois. It involved all of the  
9 LADCO states and many states out east. And the model  
10 was of the same design -- the same model that LADCO  
11 was using. In fact, Alpine Geophysics was a  
12 contractor to LADCO providing some of the basic  
13 information. So the strategies that the MOD group  
14 were running were similar in some ways to those that  
15 LADCO were running.

16 But we were also trying some other  
17 strategies to see what the model would tell us would  
18 be the outcome, and it was that model that was  
19 informing our IERG group in making comments to the  
20 Illinois EPA that we believed that there was a  
21 solution to the attainment demonstration that would  
22 not require statewide RACT. I mean, we're talking  
23 about that specific element. That was the basis for  
24 our making that comment. I would also say that was

1 coupled with the fact that the air monitoring data,  
2 which is an important component in this discussion.  
3 It's the actual measurements that are made to  
4 determine the progress that we're really seeing in  
5 the environment -- that that data itself was  
6 providing a result that was showing that the -- there  
7 were significant improvements in ozone air quality  
8 that we thought were more compatible with the results  
9 that the MOD model was showing than the results that  
10 the LADCO model was showing.

11 MR. RAO: Are these results something that IERG  
12 could enter into the record, or is it confidential?

13 MS. HIRNER: To be honest with you, I am  
14 uncertain. If they are -- about that question. If  
15 we can, we certainly will.

16 MR. RAO: Okay. If you can take a look at that.

17 MS. HIRNER: Sure.

18 MR. KOLAZ: I'll add one thing. I think it's  
19 important to note. If you view this time line that  
20 Deidre has presented, over time the difference  
21 between the models became insignificant. I think the  
22 modeling results you would see from MOD now would be  
23 perfectly compatible with what the Agency is  
24 presenting now. We have no dispute over the modeling

1 results that the Agency has presented. We're just  
2 saying that that's how -- We're talking about what we  
3 were looking at as we were making our comments and  
4 encouraging the Agency to take another look at their  
5 proposed rule.

6 MR. RAO: Did you earlier mention when LADCO did  
7 its model that -- Did they or did they not use the  
8 reasonably available control measures to determine  
9 what kind of, you know, difference it makes?

10 MR. KOLAZ: No, not in the sense that I referred  
11 to earlier. In other words, I can understand the  
12 Agency's question. In determining RACT for fine  
13 particulate, they never took the step of basically  
14 determining whether or not their proposal would  
15 advance the compliance state. As I mentioned, there  
16 is another way to do that. I mean, you don't have to  
17 do that kind of modeling. But that can be a  
18 component of your analysis to show either, one, it is  
19 necessary or, two, that it's not. I think the Agency  
20 has concluded that it is and, therefore, hasn't done  
21 that analysis.

22 I don't believe -- As a matter of fact, I'm  
23 absolutely certain US EPA would not require them to  
24 do that analysis. The Agency is entitled to propose

1 a rule that even goes beyond RACT. Although in their  
2 testimony they have stated that they do not intend on  
3 doing that.

4 MR. RAO: Thank you for that clarification.

5 MS. ROCCAFORTE: Who belongs to the Midwest  
6 Ozone Group?

7 MS. HIRNER: Oh, I don't have that off the top  
8 of my head, to be honest with you. I can get that  
9 information for you.

10 MS. ROCCAFORTE: It's a group of industries?

11 MS. HIRNER: It's many industries from many  
12 different places.

13 MS. ROCCAFORTE: Going back to what was said a  
14 few questions ago, what if a PM 2.5 non-attainment  
15 area does not attain by the attainment deadline with  
16 respect to modeling questions?

17 MR. KOLAZ: That would be good. I don't know  
18 what you mean. I mean, how do you address that ozone  
19 attainment?

20 MS. ROCCAFORTE: Correct.

21 MR. KOLAZ: I think it's important to keep in  
22 mind that the attainment deadline we're talking about  
23 for fine particulate is April of 2010, which means  
24 that the year -- the only year that we can



1 potentially impact with this rule is this coming  
2 year, January of '09. When we talk about fine  
3 particulate, there's actually two standards. There's  
4 an annual standard, and then there's a 24-hour  
5 standard. Currently the Illinois EPA attains the  
6 previous 24-hour standard of 65 micrograms per cubic  
7 meter. There is a new fine particulate standard that  
8 is not subject to this rule. We do not yet have  
9 to -- Let me back up because this is where it gets  
10 very complicated in formulating this rule.

11           The US EPA has not yet designated the  
12 non-attainment areas for the fine particulate of the  
13 24-hour standard of 35 micrograms per cubic meter.  
14 The fine particulate rule that we're talking about  
15 here is the annual rule of 15 micrograms per cubic  
16 meter. There had been a 24-hour standard associated  
17 with that annual standard, which was 65 micrograms  
18 per cubic meter. But everywhere in Illinois that  
19 standard is attained. So this rule is designed to  
20 impact the annual standard of 15 micrograms per cubic  
21 meter. That standard is attained when the three-year  
22 average is less than 15.0. That means 2007, 2008,  
23 and 2009. So two-thirds of the time line for  
24 determining attainment is done. There's nothing you

1 can do about this year we're just ending or last  
2 year. You could do something about 2009 if you had  
3 rules in effect January 1 of 2009.

4 Now, what US EPA allows is that if you've  
5 developed an attainment demonstration and at the end  
6 of 2009 you do not attain the standard, but 2009  
7 itself would be below a 15.0 in all non-attainment  
8 areas, then you can petition US EPA to get a one-year  
9 extension. What happens then is in 2010 you would  
10 average 2008, 2009, and 2010. If you don't attain at  
11 that point -- and that's possible you would not if  
12 2008 was very high and 2009 was in compliance -- you  
13 could get a one-year extension if 2010 was within the  
14 standard everywhere. And so I believe that's what is  
15 being asked by that question.

16 In formulating the rule that we're  
17 discussing today, the only opportunity to have any  
18 impact on the rule -- on the air quality is to have  
19 these emission reductions in place to impact, you  
20 know, as a practical matter possibly 2010. Although  
21 when you think about it, it's unlikely that anything  
22 significant could even occur by 2010. It's  
23 possible -- If everyone complied -- was able to  
24 comply by the May 1, 2010, compliance date in the

1 rule, it's possible that you would have some impact  
2 on 2011. But, again, you've already got -- That  
3 would assume that 2009 and 10 were within the  
4 standard. Later on though we can talk about that  
5 because there is air monitoring data that shows that  
6 maybe things are not as bad as might at first appear.

7 MS. ROCCAFORTE: But isn't RACM, of which RACT  
8 is a subset, require that the State needs to seek an  
9 extension of the attainment date?

10 MR. KOLAZ: It is. It's required that you go  
11 through the reasonably available control measure  
12 analysis, and that's what I was mentioning earlier.  
13 In that particular case, if, in essence, what the  
14 Agency would be telling US EPA is, "We have not been  
15 able to implement RACT by January 1, 2008, in order  
16 to impact 2009. We've only been able to implement it  
17 basically after the compliance date for the fine  
18 particulate," the analysis you would need to do would  
19 be able to show why RACM could advance that  
20 compliance date by one year. So if Illinois EPA ran  
21 the model we were talking about and showed the  
22 reasonably available control measures and could show  
23 the US EPA, for example, that RACM would not advance  
24 the compliance date by one year, then that would

1 fulfill the obligation. In essence, US EPA would not  
2 require RACT.

3 Now, let me be clear. That's different  
4 than saying is Illinois EPA entitled to implement  
5 something beyond what's federally required? Of  
6 course they are. But all along Illinois EPA said,  
7 "We're only meeting the federal requirements." So my  
8 point is that's the analysis that the Agency could  
9 show and say, "See, these measures we're talking  
10 about are not occurring in a time frame in sufficient  
11 amounts to advance that compliance date by one year."  
12 And then it would be satisfied. Now, maybe, on the  
13 other hand, it would be shown to advance it by one  
14 year. I highly question that that would be the  
15 outcome.

16 MS. ROCCAFORTE: On page 10 of your testimony,  
17 Ms. Hirner, you indicate that, in comments by IERG in  
18 response to the July 2007 draft rule, the compliance  
19 date of January 1, 2009, was not achievable. Isn't  
20 it true that the Agency modified the compliance date  
21 of May 1, 2010, in response to IERG's comment?

22 MS. HIRNER: This was a time line just  
23 demonstrating that the Agency said at that time, so  
24 it's a snapshot.

1 MS. ROCCA FORTE: And has the Illinois EPA  
2 demonstrated a willingness to work with IERG on  
3 issues that have arisen in the context of your time  
4 line?

5 MS. HIRNER: Yes.

6 MS. ROCCA FORTE: And on page 14 you indicate  
7 that IERG is concerned regarding the limits for  
8 certain emission units. Which emission units are you  
9 concerned with?

10 MS. HIRNER: There are emission units listed in  
11 tables, the emissions -- the numbers -- the emissions  
12 numbers, the limitations. There's a table that  
13 Illinois EPA has proposed, and then there was a table  
14 that IERG counterproposed to Illinois EPA where we  
15 counterproposed some limits. The limits that are --  
16 Some of the limits in the EPA table for certain units  
17 on those -- and I don't have them off the top of my  
18 head. You know, I could probably list those out for  
19 you because I don't have them in front of me. Or  
20 Dave may know them off the top of his head -- that  
21 the emissions limits for some of the units that were  
22 in that table could not meet that number by that  
23 date.

24 MS. ROCCA FORTE: Are we talking specifically

1 just industrial boilers?

2 MR. KOLAZ: Industrial boilers, process heaters,  
3 and electric generating units subject to subpart M.  
4 And those are the ones we are most familiar with. As  
5 Saint-Gobain has testified, it seems like they have a  
6 challenge with part of the rule as well. But it's  
7 those three that I mentioned that are of primary  
8 concern to IERG at this time.

9 And I want to emphasize. While we talk  
10 about emission limits, it's not so much the emission  
11 limit. It's the emission limit coupled with the very  
12 short compliance time.

13 MS. ROCCAFORTE: Are there any limits for  
14 emission limits that IERG is not concerned about?

15 MR. KOLAZ: No. I mean, not of the three  
16 categories I've spoke of.

17 MS. ROCCAFORTE: On page 15 you indicate that  
18 May 1, 2010 -- that the May 1, 2010, compliance date  
19 affords an inadequate amount of time for companies to  
20 achieve compliance. Can you suggest a compliance  
21 date that affords companies an adequate amount of  
22 time to comply?

23 MS. HIRNER: No, I cannot. As I view RACT, it's  
24 very -- It's RACT, reasonably achievable control

1     technology. And that goes to a unit at a site. You  
2     know, various facilities are going to have various  
3     different designs. So facility-by-facility  
4     discussions -- We have had facility-by-facility  
5     discussions where they have talked about what they  
6     would have to do in order to meet that deadline.  
7     They cannot in order to meet that deadline. It's not  
8     every IERG member. It would be different ones.

9           MR. KOLAZ: You know, I think I could add, I  
10    think, a helpful comment on this.

11           I think IERG could offer a solution to the  
12    time line problem that would allow -- working with  
13    the Agency would allow the Agency to meet its  
14    statutory requirements, develop an attainment plan,  
15    and yet engage in a control strategy for the future  
16    that will likely be necessary to meet that new  
17    24-hour fine particulate standard and the new ozone  
18    standard. Even as we talk about achieving current  
19    ozone standards, there's a new ozone standard coming.  
20    It would, in this particular case, allow us to be  
21    ahead of the curve.

22           As I tried to show in my testimony, I think  
23    in many cases the Agency can assert that the emission  
24    reductions already being achieved by the largest

1 facilities constitute RACT. It doesn't constitute  
2 the lowest possible nitrogen oxide emission rate that  
3 is technologically available, but it satisfies the  
4 US EPA requirement for RACT. And, in fact, I think  
5 some of the documents that Illinois EPA has in their  
6 website could confirm that statement. I think by  
7 taking advantage of that -- I should point out these  
8 are companies that are subject to rules right now,  
9 the Clean Air Interstate Rule, the Nitrogen Oxide SIP  
10 Call, what's known as subpart W for electric  
11 generating units, subpart U for non-EGU's. I mean,  
12 these are companies that are subject to rules. To  
13 say they're not regulated would be a wrong concept. I  
14 think those emission reductions that they're  
15 achieving can be shown to be RACT.

16 I think the attainment demonstration that  
17 Illinois EPA is even proposing to speak about on  
18 December 16 actually confirms that approach. I think  
19 if we take that approach and then pick a compliance  
20 date for the future, that puts us on a path to meet  
21 more stringent numbers, maybe the more stringent  
22 numbers that the Agency's talking about. That would  
23 be an option that would help the industry to be able  
24 to plan ahead. At the same time it would allow the



1 Agency to have a rule in place looking forward.

2 And I would say the compliance date in the  
3 case -- what I'll call the second phase -- would be  
4 along the 2014 to 2015 time line, which is consistent  
5 with the time line that the Agency has in the  
6 part 225 rules they just completed for electric  
7 generating units that have compliance dates for  
8 nitrogen oxide to 2012. And there's other reductions  
9 as well. In the case of the Clean Air Interstate  
10 Rule, reductions start in 2009. There's a 2014  
11 compliance date.

12 If you look at what's been done in the last  
13 two years for electric generating units, you'll see  
14 this phase and approach that extends out through the  
15 2014, 15, and 18 time line. I think if the Agency  
16 modified its rule to have sort of that two-phase  
17 approach, then it would be possible to make some of  
18 the emission reductions we're talking about.

19 MS. ROCCA FORTE: But isn't the CAIR currently --  
20 Hasn't the CAIR been under legal challenge?

21 MR. KOLAZ: Well, sure. It is. It is. And  
22 that makes it more complicated. But I think there's  
23 options there as well.

24 MS. ROCCA FORTE: Thanks. I was trying to get a

1 specific compliance date out of you.

2 MR. KOLAZ: Okay. I'd say January 1, 2014.

3 MS. ROCCA FORTE: On page 18 you contend proposed  
4 rules unnecessary because the Chicago area is  
5 attaining the 1997 eight-hour ozone standard. Isn't  
6 NOx RACT is a specific clean air requirement?

7 MS. HIRNER: I'm sorry. I have a little hearing  
8 problem, and I couldn't hear what you asked me.

9 MS. ROCCA FORTE: On page 18 of your testimony  
10 you contend that the proposed rule is unnecessary  
11 because the Chicago area is attaining the 1997  
12 eight-hour ozone standard. Isn't it true that  
13 NOx RACT is its own specific clean air requirement?

14 MS. HIRNER: The NOx RACT rule -- You have to  
15 have NOx RACT.

16 MS. ROCCA FORTE: That's what I was asking.

17 MS. HIRNER: You have to have NOx RACT. The  
18 issue is what is NOx RACT? Is NOx RACT, for example,  
19 meeting the NOx SIP Call? Is NOx RACT the -- Is  
20 NOx RACT as a facility meeting emissions limits which  
21 the Illinois EPA has proposed? So, yes, you have to  
22 meet NOx RACT. The question is what is NOx RACT? Is  
23 it the Agency's rule, or is it something else?

24 MR. KOLAZ: I'll point out that in the Agency's

1 website they posted documents for the December 16  
2 hearing. That hearing is for the purpose of allowing  
3 the public to comment on the Agency's ozone  
4 attainment demonstration for Chicago and also to take  
5 comments on the Agency's proposal to request that  
6 US EPA designate Chicago as having already attained  
7 the standard.

8 And on page 11 of that document there's  
9 other similar references. The Agency states that  
10 they do this on-the-books emission reduction. And  
11 they mention specifically Title 4 of the Clean Air  
12 Act, phases 1 and 2, and the NOx SIP Call. Now,  
13 EGU's and large industrial boilers are subject to the  
14 NOx SIP Call right now. So what the Agency is  
15 acknowledging is that that is sufficient. These  
16 on-the-books controls without the rule we're talking  
17 about today is sufficient to obtain the ozone  
18 standard. And that -- That's all I'll say.

19 HEARING OFFICER FOX: Ms. Bassi, please go  
20 ahead.

21 MS. BASSI: I have a question of clarification.

22 This is a document from the Agency's  
23 website for the ozone attainment demonstration  
24 hearing?

1 MR. KOLAZ: Yes.

2 MS. BASSI: Is that correct?

3 MR. KOLAZ: Yes.

4 MS. BASSI: And you said it acknowledges Title 4  
5 reductions?

6 MR. KOLAZ: Yes.

7 MS. BASSI: Thank you.

8 MS. ROCCAFORTE: Does that notice also indicate  
9 that the Agency's taking comments on new designations  
10 as they regard the new strength in ozone standard?

11 MR. KOLAZ: I never knew that. I'm not sure  
12 that that makes a difference with this. It doesn't  
13 affect my answer.

14 MS. ROCCAFORTE: Ms. Hirner, even though the  
15 Chicago area is currently attaining the eight-hour  
16 ozone standard, are you aware that there are other  
17 areas downwind of Chicago, in Holland, Michigan, for  
18 example, that are not attaining the eight-hour ozone  
19 standard? Do you believe that emissions from Chicago  
20 impact Holland, Michigan?

21 MS. HIRNER: How would I know?

22 MS. ROCCAFORTE: In discussions with the Agency,  
23 has it been stated that without the Clean Air  
24 Interstate Rule Illinois cannot demonstrate

1     attainment of the PM 2.5 standards in either the  
2     Chicago or Metro East area?

3             MS. HIRNER: In discussions with the --

4             MS. ROCCAFORTE: Do you recall if the Agency  
5     testified to the fact that without CAIR Illinois  
6     cannot demonstrate attainment in the PM 2.5 standard  
7     in either Chicago or the Metro East area?

8             MS. HIRNER: I can't recollect, no. I mean, I  
9     really can't recollect. I'd have to go back and  
10    think. There's one -- I've heard of one area, but I  
11    can't remember which one it is. But I don't know.

12            MR. KOLAZ: That is correct. That is what the  
13    Agency has said. Without CAIR they cannot attain  
14    Chicago Metro East.

15            However, I think that right now that's only  
16    true in Metro East because the modeling -- First of  
17    all, the Illinois EPA did not submit an attainment  
18    demonstration for ozone for the Metro East area in  
19    June of 2007, which was the deadline for both Chicago  
20    and the Metro East area. That attainment  
21    demonstration relied on CAIR, as it should have. And  
22    that CAIR program, of course, is -- would be  
23    implemented also in Missouri, and that showed  
24    attainment. However, with the recent court action on

1 the CAIR rule, that changes that attainment  
2 demonstration. Without CAIR in Metro East -- excuse  
3 me -- in Missouri, Metro East cannot attain.

4           However, in Chicago that's not the case.  
5 As the document that I referred to earlier shows for  
6 ozone, the Illinois EPA can attain ozone in Chicago  
7 without the Clean Air Interstate Rule in the other  
8 states. The Illinois EPA has not yet prepared their  
9 fine particulate attainment demonstration. But in  
10 the same document they include the modeling results  
11 for the fine particulate for the Chicago area, and  
12 those numbers also show that even without the Clean  
13 Air Interstate Rule and even with on-the-books  
14 controls that exist now that numerically the model  
15 shows that the fine particulate standard is attained.  
16 And I use the word "numerically" to say that the  
17 Agency does not make a statement within that document  
18 saying that -- The purpose of the document for this  
19 hearing is not to talk about fine particulate. The  
20 data's in there, but they don't make the  
21 pronouncement of attainment.

22           They do say that if they -- They make the  
23 comment that if Illinois will attain the fine  
24 particulate standard in Chicago by the required date,

1     which, as I mentioned, would be basically 2009, then  
2     Illinois does not have to do a reasonable further  
3     progress plan for fine particulate. Therefore,  
4     they're not doing one. So it stops short of Illinois  
5     EPA saying they're going to attain, but it certainly  
6     leads to that conclusion.

7             MR. DAVIS: Dave, as a point of clarification,  
8     when you refer to on-the-books controls, what are you  
9     referring to?

10            MR. KOLAZ: I'm referring to certainly the  
11     NOx SIP Call, the subpart U and the subpart W. I'm  
12     also referring to the Clean Air Interstate Rule.  
13     And, again, I agree that that legally is up in the  
14     air, but I think that for planning purposes we have  
15     to talk in terms of that being in effect. I think if  
16     it turns out it's not for Illinois there are some  
17     things we can do to take care of that.

18            MR. DAVIS: You're not referring to any  
19     reductions that may come about based on the proposal?

20            MR. KOLAZ: No.

21            MS. ROCCAFORTE: In your testimony, Ms. Hirner,  
22     you included a document referenced as Exhibit A,  
23     which is a nationwide survey of NOx RACT  
24     implementation; is that correct?

1 MS. HIRNER: Yes.

2 MS. ROCCAFORTE: The date on that document is  
3 June 23 of '06; is that correct?

4 MS. HIRNER: Yes.

5 MS. ROCCAFORTE: Is the information in that  
6 document still current given that it was prepared in  
7 2006?

8 MS. HIRNER: That document accurately reflects  
9 2006. But I also have a document that is the 2008  
10 update to that document. So anything that is in the  
11 2008 document that is a listing for the same state  
12 updates 2006. If it is not updated in the 2008  
13 document, then those are still in place. And those  
14 were -- The way that that information was gathered  
15 was by someone -- a staff person making telephone  
16 calls to all of those things -- to all of those  
17 places.

18 MS. ROCCAFORTE: Just for clarification, the  
19 last page of Exhibit B, as it relates to Illinois,  
20 those are the limits that are currently before the  
21 Board as opposed to those under Exhibit A?

22 MS. HIRNER: Exhibit B reflects what we have  
23 today.

24 MS. ROCCAFORTE: Thank you.



1           In that survey, isn't it true that many  
2       states adopted NOx RACT rules several years ago?

3           MS. HIRNER: Yes. But Illinois didn't have to  
4       several years ago.

5           MS. ROCCA FORTE: On page 28, New Hampshire's  
6       rules, it's indicated, were approved by US EPA in  
7       1997; is that correct?

8           MS. HIRNER: That's what this says.

9           MS. ROCCA FORTE: On page 32, New Jersey's rules  
10      were approved by US EPA in 1999; is that correct?

11          MS. HIRNER: If that's what the table says.

12          MS. ROCCA FORTE: And aren't there several other  
13      states listed in the survey that were approved by  
14      US EPA several years ago?

15          MS. HIRNER: If that's what the table says,  
16      that's what the table says.

17          MS. ROCCA FORTE: Has Illinois ever adopted  
18      NOx RACT rules?

19          MS. HIRNER: No.

20          MS. ROCCA FORTE: Do you believe that control  
21      technologies have improved since many of these RACT  
22      rules were adopted?

23          MS. HIRNER: I do not know enough about the  
24      specifics to know what happened then and what

1     happened now. I'm not a technological person.

2             MS. ROCCAFORTE: But wouldn't you expect that  
3     NOx controls with today's technology would be better  
4     than they were in the 1990s when many of those states  
5     were adopting their NOx RACT rules?

6             MS. HIRNER: I think that control technologies  
7     evolve over time, and I think that we see the result  
8     in the reduction of air emissions because of  
9     different control technologies that are being placed  
10    on different emission units over time. So, of  
11    course, the control technology improves over time  
12    because we show it in what we've been able to achieve  
13    in terms of cleaning up the quality of the air.

14            MS. ROCCAFORTE: As illustrated earlier,  
15    Exhibit B attached to your testimony provides an  
16    update of the 2006 survey, correct?

17            MS. HIRNER: Right.

18            MS. ROCCAFORTE: The document lists some states  
19    where US EPA has recertified a state's earlier  
20    NOx RACT rule as still satisfying RACT. Delaware,  
21    for example, on page 3 of the exhibit. Do you  
22    believe it is more expensive on a dollar-per-ton  
23    basis to reduce NOx emissions on an emission unit  
24    that is already controlled than it is to reduce

1 emissions on a unit that is not controlled?

2 MS. HIRNER: You would have to ask someone who  
3 is an engineer at the facility how much it costs.

4 MS. ROCCAFORTE: Would you like to comment?

5 MR. KOLAZ: I think that is true. I think  
6 that's a very important thing to keep in mind in what  
7 you propose. Many of the facilities that you're  
8 talking about adding additional controls on already  
9 have spent money for control. And the -- Some of the  
10 tables and the support documents are showing  
11 reductions from an uncontrolled rate when in reality  
12 these companies are already controlled. That throws  
13 off the entire cost analysis. As testified -- As the  
14 Agency testified at the October 14 hearing, there was  
15 no specific analysis done for any units in Illinois  
16 to capture the fact that they've already expended  
17 money, and the level from which they would be  
18 controlling is not an uncontrolled rate. So I agree.  
19 That is very important.

20 MS. ROCCAFORTE: Would it not then be more  
21 difficult from a cost perspective to set tighter  
22 emission limits in a state that has already  
23 established emission limits than it is in a state  
24 that has never established emission limits

1 previously?

2 MR. KOLAZ: Yes. But keep in mind that Illinois  
3 hasn't established emissions.

4 MS. ROCCAFORTE: In the exhibits attached to the  
5 testimony, did you or your staff identify any states  
6 that relied on either the NOx SIP Call for non-EGU's  
7 or the Clean Air Interstate Rule for EGU's to satisfy  
8 the NOx RACT requirement?

9 MS. HIRNER: You know, I think there are some in  
10 there, but I can't recollect.

11 MR. KOLAZ: You had made the comment a little  
12 bit earlier that Illinois has never had NOx RACT  
13 before. And these other states -- Many of them had  
14 NOx RACT before there ever was the NOx SIP Call. So  
15 there should be no reason for these states to rely on  
16 the NOx SIP Call since they already had the RACT  
17 rule. So we actually never did -- truly never did  
18 look to see if these states used NOx SIP Call because  
19 what we relied on was the US EPA regulations that  
20 said they would accept the NOx SIP Call as RACT for  
21 ozone. That was good enough for us.

22 MS. ROCCAFORTE: So the answer's no?

23 MR. KOLAZ: I forgot what the question was.

24 MS. ROCCAFORTE: Were there any states in the

1 survey that relied on --

2 MR. KOLAZ: The answer is we never looked. So I  
3 don't know. There could be. I don't know.

4 MS. ROCCA FORTE: I just have a couple more.

5 Isn't it true that on March 24, 2008,  
6 US EPA made it binding that Illinois, among other  
7 states, failed to make a RACT submittal required  
8 under Part D of Title 1 of the Clean Air Act for its  
9 two moderate non-attainment areas?

10 MS. HIRNER: Yes.

11 MS. ROCCA FORTE: And isn't it true that such  
12 findings started the 18-month emission offset  
13 sanctions block and the 24-month highway funding  
14 sanctions block under the Clean Air Act and the  
15 24-month block for promulgation by US EPA of a  
16 federal implementation plan?

17 MS. HIRNER: I believe that was included in the  
18 promulgation.

19 MS. ROCCA FORTE: Thank you. I have no further  
20 questions.

21 HEARING OFFICER FOX: No further questions,  
22 Ms. Roccaforte, for either Mr. Kolaz or Ms. Hirner?

23 MS. ROCCA FORTE: For Ms. Hirner.

24 HEARING OFFICER FOX: For Ms. Hirner. Very

1 well.

2           Why don't we do this? It is now almost  
3 exactly 12:30. We have been at it for about 90  
4 minutes. It seems an appropriate time to break for  
5 lunch. Why don't we resume in one hour at 1:30.

6           Ms. Roccaforte, if you're prepared then to  
7 begin with questions of Mr. Kolaz, we can start right  
8 at that point then. Thanks very much.

9           (WHEREUPON, at 12:30 p.m. the  
10 hearing was adjourned, to reconvene  
11 at 1:30 p.m., this same day.)

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1 AFTERNOON SESSION

2 HEARING OFFICER FOX: Noting that the time of  
3 1:30 for the end of our lunch break has come and just  
4 past, I want to put us back on the record for a  
5 moment in recognition of that deadline, but go off  
6 the record while we wait for a couple of people,  
7 including the Agency personnel who are preparing to  
8 question you, I think, Mr. Kolaz. With that, we'll  
9 go off the record just for a moment or two.

10 (WHEREUPON, discussion was had  
11 off the record.)

12 HEARING OFFICER FOX: Thank you all for  
13 returning promptly from the lunch break. When we did  
14 stop at 12:30, the Agency was asking questions of  
15 IERG's witnesses. My recollection, Ms. Roccaforte,  
16 is that you had concluded questions specifically for  
17 Ms. Hirner and were prepared to begin asking  
18 questions posed specifically to Mr. Kolaz. Although  
19 I suspect Ms. Hirner remains available to supplement  
20 any of his answers as well. If that's accurate,  
21 please feel free to resume.

22 MS. VETTERHOFFER: And I'm actually doing the  
23 questioning of Mr. Kolaz.

24 HEARING OFFICER FOX: Ms. Vetterhoffer. I'm

1     sorry. I overlooked you.

2           MR. DAVIS: Actually if I can interrupt just  
3     really quickly? I don't want to forget.

4           HEARING OFFICER FOX: Mr. Davis, please go  
5     ahead.

6           MR. DAVIS: Mr. Kolaz referred in his testimony  
7     and in his answers to the Illinois EPA's attainment  
8     demonstration for an ozone national ambient air  
9     quality standard for Chicago. While I don't have a  
10    copy of that document in my possession, I'd at least  
11    like to read the title of the document in the record  
12    so that people who are interested in looking into it  
13    can find it.

14          HEARING OFFICER FOX: This is with reference to,  
15    I believe, the December 16 hearing, the testimony  
16    that the questions and answers had referred to?

17          MR. DAVIS: Yes.

18          HEARING OFFICER FOX: Please go ahead and do  
19    that for the sake of clarity, Mr. Davis. That would  
20    be helpful.

21          MR. DAVIS: The title page is Draft Attainment  
22    Demonstration for the 1997 Eight-Hour Ozone National  
23    Ambient Air Quality Standard for the Chicago  
24    Non-Attainment Area, document number AQPSTR08-07,



1     dated November 15, 2008.

2           HEARING OFFICER FOX:   Very well.   Thank you,  
3     Mr. Davis.

4           MR. DAVIS:   Thank you.

5           HEARING OFFICER FOX:   We almost certainly will  
6     be taking a break at some point mid afternoon.   With  
7     the Board offices right upstairs, we have a copier  
8     available.   What we would like to ask, frankly, is  
9     since you've placed that specifically in the record  
10    at least to the citation of reference, if we could  
11    get copies of that to admit into the record as a  
12    hearing exhibit?

13          MR. DAVIS:   I don't have a full copy of the  
14    document before me.   Otherwise, I would have  
15    submitted it.

16          MS. HIRNER:   We'll get it.

17          HEARING OFFICER FOX:   You can get that?

18          MR. DAVIS:   Certainly.

19          HEARING OFFICER FOX:   Certainly we'll have some  
20    either post-hearing comments or, as we've discussed,  
21    possibly a third hearing.   That could be incorporated  
22    into either those comments or pre-filed testimony for  
23    a third hearing if that's the most productive way to  
24    get a copy of that.

1 MR. DAVIS: If we could copy perhaps yours?

2 MS. BASSI: Sure. If you want to make sure that  
3 it's your document.

4 MR. KALEEL: We'd be happy to provide the entire  
5 document, if that saves a little trouble here. It's  
6 on our website, but we'd be happy to provide it.

7 HEARING OFFICER FOX: If that's the case,  
8 Mr. Kaleel. Certainly it sounds like there may be  
9 some difficulty in obtaining the full copy with the  
10 more limited resources here. If we could incorporate  
11 that, as I said, into any post-hearing comments or  
12 any pre-filed testimony for a potential third  
13 hearing, that would supplement our record, I think,  
14 to the satisfaction clearly of Ms. Hirner who  
15 indicates that that would work. And I suspect any  
16 other parties as well.

17 MR. KALEEL: We'd be happy to do that.

18 HEARING OFFICER FOX: Mr. Kaleel, thanks for  
19 intervening with that offer. I appreciate it.

20 Ms. Vetterhoffer, I think we've cut in on  
21 you a couple of times, and I apologize.

22 Let me check to make sure. Mr. Davis, you  
23 are complete with the points you wish to make before  
24 Ms. Vetterhoffer begins?

1 MR. DAVIS: Yes. Thank you.

2 HEARING OFFICER FOX: Please go ahead, and thank  
3 you for your forbearance.

4 MR. VETTERHOFFER: Mr. Kolaz, on page 3 of your  
5 testimony, you note that the Agency has identified  
6 NOx RACT as a necessary -- On page 3 of your  
7 testimony, you note that the Agency has identified  
8 NOx RACT as a necessary component of Illinois SIP to  
9 obtain acts for ozone and PM 2.5. You then state in  
10 your testimony that the Agency has not quantified the  
11 reductions for successful attainment demonstration.  
12 Did the Agency ever indicate that NOx RACT is the  
13 only element of the attainment demonstration?

14 MR. KOLAZ: No.

15 MS. VETTERHOFFER: And doesn't an attainment  
16 demonstration consist of many different -- Doesn't an  
17 attainment demonstration consist of many different  
18 control measures, including measures to reduce  
19 emissions from point area and mobile sources?

20 MR. KOLAZ: Yes, it does.

21 MS. VETTERHOFFER: And I know you talked about  
22 this a little bit earlier, but I just want to  
23 clarify. Are you saying that the Agency should  
24 determine NOx RACT based on the amount of reduction

1 needed to show attainment through modeling?

2 MR. KOLAZ: No.

3 MS. VETTERHOFFER: On page 4 of your testimony  
4 you implied that the Agency should have conducted a  
5 sensitivity analysis to determine whether emission  
6 reductions for the proposal would have a perceptible  
7 change in the modeling results. How would you define  
8 a perceptible change?

9 MR. KOLAZ: Well, my testimony on page 4 was  
10 structured differently than the way you present it in  
11 the question. I certainly wasn't implying -- You  
12 might have inferred that I was implying there should  
13 be a sensitivity analysis. I was simply making the  
14 observation that the Agency developed the rule  
15 without identifying a specific emission target that  
16 it was attempting to reach through this RACT rule.  
17 My point wasn't to say that that was erroneous or  
18 somehow improper. It was just simply saying that the  
19 way the rule was actually structured was by  
20 determining what control technology would represent  
21 reasonably available control technology and then  
22 taking those emission reductions, whatever they were,  
23 and then putting them into the model.

24 As Mr. Kaleel testified on October 14, he

1 said something to the effect that whatever emission  
2 reduction would have come from that RACT analysis  
3 would have been what was used in the model. So I  
4 took from that to mean that the Agency already knew  
5 that the amount of emission reductions that they were  
6 talking about was not so great that it would change  
7 the results of the model. There was enough  
8 cushion -- or, let's just say, they were small enough  
9 in magnitude that it would not make a difference.  
10 Therefore, they saw no reason to do a sensitive  
11 analysis. Otherwise, they would have done the  
12 analysis and performed their RACT assessment. And  
13 then if the RACT assessment was insufficient to  
14 attain that number, they would have tried to go  
15 beyond RACT, which they are allowed to do. And that  
16 was really the point.

17 Again, I want to emphasize it's not at all  
18 suggesting that they would have had to do that --  
19 that type of a sensitivity analysis. We're just  
20 simply saying they determined it was unnecessary.  
21 Consequently, I believe that there's room to consider  
22 other emission limits that are RACT, and that those  
23 emission reductions that would come from those  
24 alternate limits, likewise, should be sufficient to

1 be incorporated into the attainment demonstration and  
2 still reach the conclusions the Agency's trying to  
3 reach.

4 MS. VETTERHOFFER: Isn't Illinois -- the ozone  
5 SIP composed of many different control measures, such  
6 as vehicle inspection and maintenance, stage II  
7 reformulated gasoline, and VOC RACT, among others?

8 MR. KOLAZ: It is.

9 MS. VETTERHOFFER: Do you know if any of these  
10 requirements were promulgated on the basis of  
11 modeling?

12 MR. KOLAZ: I'm not exactly sure what you mean  
13 by that.

14 MS. VETTERHOFFER: Are these requirements Clean  
15 Air Act requirements regardless of modeling?

16 MR. KOLAZ: Yes. At least some of them are, and  
17 maybe all of them.

18 MS. VETTERHOFFER: And do you know if any of  
19 those control measures were ever modeled  
20 individually?

21 MR. KOLAZ: I'm not sure -- Again, I'm not sure  
22 exactly what you mean. But I know that in preparing  
23 an attainment demonstration you need to incorporate  
24 all of the emission reductions that you intend on

1 being a part of your attainment demonstration. To  
2 that extent, they would be modeled.

3 MS. VETTERHOFFER: So you consider them in the  
4 aggregate? You don't necessarily model each  
5 individual control measure that you intend to  
6 implement?

7 MR. KOLAZ: Well, I think that you -- I'm not  
8 entirely sure how the Agency has done this modeling.  
9 I would think that what you would do is determine the  
10 emission reduction from each component of your  
11 control plan and incorporate those specific emission  
12 reductions in your control -- in your modeling  
13 demonstration in some fashion or another whether or  
14 not you aggregate that or whether or not you actually  
15 specifically attribute that emission reduction for  
16 each individual component. I'm not sure exactly how  
17 the Agency has done it in the past, but I think in  
18 one fashion or another the emission reductions coming  
19 from your control strategy must find its way in an  
20 appropriate way into the modeling demonstrations.

21 MS. VETTERHOFFER: Okay. On page 5 of your  
22 testimony, you imply that improving air quality is  
23 not necessarily the driving force behind Illinois'  
24 current NOx RACT rule. Am I characterizing your

1 testimony correctly?

2 MR. KOLAZ: No.

3 MS. VETTERHOFFER: Could you explain how I'm not  
4 doing that?

5 MS. HIRNER: I'm sorry. I really can't -- I  
6 can't hear what you're asking him.

7 MS. VETTERHOFFER: I said -- On page 5 he  
8 implied that air quality is not the driving force  
9 behind the rule. I asked him if I was characterizing  
10 his testimony correctly. He stated that I was not,  
11 so he's going to explain.

12 MS. HIRNER: Thank you.

13 MR. KOLAZ: And here's how. It's a nuance in  
14 the way you've worded the question. My exact  
15 testimony says, "The specific amount of emission  
16 reductions derived from the proposed rule, while  
17 important and useful, are not the driving force  
18 behind the rule. Otherwise, the Agency would have  
19 determined the impact that various levels of NOx  
20 emission reductions would have on the attainment  
21 model results to ensure that any rule it would  
22 propose would achieve those reductions while meeting  
23 or exceeding RACT requirements." That's my point.  
24 It's the RACT -- It's the determination of what is



1 RACT that then produces the emission reductions.  
2 It's not the determination that I need X amount of  
3 emission reductions that is driving the specific  
4 emission limits that are in that rule.

5 That's important to IERG because we believe  
6 that we can show that there are more appropriate  
7 emission limits that US EPA has stated that they  
8 consider to be RACT that will produce a similar  
9 emission number that could then be put into the  
10 model. And according -- What we believe the Agency's  
11 conclusion is is that those emission numbers should  
12 produce acceptable results. And I know I repeat  
13 myself, but that's because otherwise the Agency would  
14 have said we need 42,666 tons and any -- and the way  
15 the rule would be formulated would have to be such  
16 that those were attained. And that's really the  
17 thrust. Naturally, the emission reductions are  
18 important.

19 MS. VETTERHOFFER: And isn't it true that NOx is  
20 considered a precursor to the formation of both ozone  
21 and PM 2.5?

22 MR. KOLAZ: Yes.

23 MS. VETTERHOFFER: Shouldn't the application of  
24 controls to release NOx have a beneficial effect on

1 reducing ozone and PM 2.5?

2 MR. KOLAZ: As a general matter, but not  
3 necessarily as an absolute matter. There are  
4 certainly levels of emission reductions that you can  
5 imagine that could be made that would be -- that  
6 would not ever be reflected in an attainment  
7 demonstration or even in modeling results. In fact,  
8 the Clean Air Act recognizes that that's a  
9 possibility by allowing the State to make a showing  
10 that NOx emission reductions might not be  
11 appropriate.

12 Now, Illinois has chosen not to request a  
13 waiver at this time, and we're not disputing that. I  
14 would say as a general matter that statement could be  
15 true, but it's not -- If you're taking that to mean  
16 that, therefore, every single amount of emission  
17 reductions is appropriate and necessary, I would  
18 disagree with that.

19 MS. VETTERHOFFER: In general, would you say  
20 that greater NOx reductions will yield greater  
21 benefits? And, again, I'm just asking in general.  
22 I'm not asking about specifics.

23 MR. KOLAZ: Could I have that question again?

24 MS. VETTERHOFFER: I can ask it again.

1           In general, would you say that greater NOx  
2 reductions will yield greater benefits?

3           MR. KOLAZ: As a general matter, sure. Yeah,  
4 I'll say yes.

5           MS. HIRNER: May I ask a question? Did Illinois  
6 have a NOx waiver for a while because it showed that  
7 it was a disbenefit?

8           MR. KOLZA: Are you asking me?

9           MS. HIRNER: No. I was just curious

10          MS. BASSI: Mr. Fox?

11          HEARING OFFICER FOX: Ms. Bassi?

12          MS. BASSI: I'll ask that question.

13                 Mr. Kolaz, are you aware of whether  
14 Illinois ever had a NOx waiver?

15          MR. KOLAZ: Yes.

16          MS. BASSI: And what was the purpose of the NOx  
17 waiver?

18          MR. KOLAZ: The purpose of the NOx waiver was to  
19 obtain approval from US EPA to not reduce nitrogen  
20 oxide emissions because in that particular instance,  
21 based on the standard that was in place at that time,  
22 reducing nitrogen oxide emissions would actually  
23 cause higher ozone levels.

24          MS. BASSI: So to go back to Ms. Vetterhoffer's

1 question, do you agree that it is always the case --  
2 although she did not say always -- that it is always  
3 the case that NOx reductions produce benefits? And  
4 by benefits I assume we mean reductions in ambient  
5 air quality standards.

6 MR. KOLAZ: No, it's not always the case.

7 MS. BASSI: Thank you.

8 MS. VETTERHOFFER: Even though the Chicago area  
9 may be attaining the 1997 ozone standards based on  
10 the three most recent years of data, isn't it also  
11 true that places that are not -- I'm sorry -- that  
12 are outside of the non-attainment area, but are  
13 downwind of Chicago, are not meeting the standard?

14 MR. KOLAZ: Yes.

15 MS. VETTERHOFFER: And places such as Holland,  
16 Michigan?

17 MR. KOLAZ: Yes, Holland, Michigan,  
18 specifically.

19 MS. VETTERHOFFER: Is Holland, Michigan,  
20 attaining?

21 MR. KOLAZ: No, it is not.

22 MS. VETTERHOFFER: Do you believe that emissions  
23 from Chicago are affecting air quality in Holland,  
24 Michigan?

1           MR. KOLAZ: I can just repeat what the Agency  
2           and LADCO has produced in their technical support  
3           document. I don't have any independent knowledge  
4           beyond that.

5           MS. VETTERHOFFER: That's fine.

6                     In your opinion, doesn't Illinois have an  
7           obligation to address Chicago's impact to downwind,  
8           non-attainment areas?

9           MR. KOLAZ: I view that obligation as really  
10          being separate from the rule discussion we're having  
11          today. As I stated in my testimony, I base my whole  
12          analysis of what the Agency said was the purpose of  
13          this rule, which was to develop an attainment  
14          demonstration for Illinois and to achieve the RACT  
15          requirements in the Clean Air Act. There was nothing  
16          said about addressing downwind transport.

17                    That said, I'm not implying that the Agency  
18          is not addressing that in their attainment  
19          demonstration. In fact, that would be required. But  
20          I don't know that they have to address it  
21          specifically in this rule, and I'm not aware of what  
22          components of this rule are designed to achieve those  
23          reductions outside of Illinois.

24          MS. VETTERHOFFER: And you touched on this

1 earlier in your testimony. Just to clarify, isn't it  
2 true that US EPA tightened the ozone standard in  
3 2008?

4 MR. KOLAZ: Yes.

5 MS. VETTERHOFFER: Do you know if the Chicago  
6 area or the Metro East area are currently attaining  
7 that standard?

8 MR. KOLAZ: I know that they are not.

9 MS. VETTERHOFFER: And isn't it also true that  
10 US EPA tightened the PM 2.5 standard in 2006?

11 MR. KOLAZ: They did for the 24-hour time  
12 period.

13 MS. VETTERHOFFER: And do you know if the  
14 Chicago area or the Metro East area are currently  
15 attaining that standard?

16 MR. KOLAZ: No, I do not believe they are in all  
17 areas.

18 MS. VETTERHOFFER: On page 7 of your testimony  
19 under paragraph G, you state that US EPA has the  
20 authority to determine that RACT is satisfied. Can  
21 you please explain or elaborate on what you meant by  
22 that?

23 MR. KOLAZ: Yes. As the Agency has stated in  
24 their Statement of Reasons and in other documents

1 produced for this rule, they are obligated to develop  
2 an attainment demonstration that contains various  
3 components and various elements, one of which is the  
4 demonstration that they've satisfied the reasonably  
5 available control technology requirements for the  
6 Clean Air Act. Once that plan is assembled, that's  
7 not the end of the process. That has to be submitted  
8 to the US EPA, and it's US EPA that deems whether or  
9 not the Illinois EPA has, indeed, satisfied the  
10 requirements. And that was the point of my comment.  
11 They are the ones who decide if you've done it  
12 properly.

13           Therefore, my -- I took that point to  
14 really address the fact that anything that US EPA  
15 might be able to share regarding their view of  
16 NOx RACT would be very important in determining what  
17 NOx RACT should be. And they have made several  
18 explicit statements in that regard, and I think those  
19 are important for the Agency to consider in  
20 developing their program to satisfy the US EPA that  
21 Illinois has complied with that provision of the  
22 Clean Air Act.

23           MS. VETTERHOFFER: So you aren't saying that the  
24 State doesn't have a role in determining what is

1 NOx RACT, correct?

2 MR. KOLAZ: The State does -- That's correct.  
3 That's correct.

4 MS. VETTERHOFFER: Just to summarize, so  
5 generally what you're saying is US EPA has the  
6 authority to approve the State's rules, but you're  
7 acknowledging that the State has the responsibility  
8 to develop and adopt the rules first, correct?

9 MR. KOLAZ: Correct.

10 MS. VETTERHOFFER: Hasn't US EPA made many  
11 statements regarding what it considers NOx RACT? For  
12 example, Exhibit A summarizes NOx RACT requirements  
13 in other states; is that correct?

14 MR. KOLAZ: Yes.

15 MS. VETTERHOFFER: And doesn't the summary also  
16 list the date that US EPA approved many of those  
17 state's RACT rules?

18 MR. KOLAZ: Yes.

19 MS. VETTERHOFFER: And isn't it true that  
20 NOx RACT requirements vary from state to state?

21 MR. KOLAZ: Yes.

22 MS. VETTERHOFFER: On page 8 of your testimony,  
23 you state the position that subpart M of Illinois'  
24 proposed rule is unnecessary for the purposes of this



1 rulemaking. Does subpart M have requirements that  
2 reduce NOx emissions from electric-generating units  
3 or EGU's?

4 MR. KOLAZ: Yes.

5 MS. VETTERHOFFER: Doesn't subpart M refer to  
6 the MPS or the multi-pollutant standard which is  
7 contained in the Illinois Mercury Rule and the CPS or  
8 combined-pollutant standard which is currently in  
9 CAIR?

10 MR. KOLAZ: Yes.

11 MS. VETTERHOFFER: Aren't the MPS and CPS  
12 requirements voluntary? In other words, don't the  
13 companies affected by the MPS and CPS have the choice  
14 of whether or not they wish to participate?

15 MR. KOLAZ: Yes.

16 MS. VETTERHOFFER: To your knowledge, have the  
17 companies located in the non-attainment areas that  
18 operate -- chosen to participate under the MPS and  
19 CPS options?

20 MR. KOLAZ: They have.

21 MS. VETTERHOFFER: By so choosing, aren't those  
22 companies exempt from this NOx RACT proposal?

23 MR. KOLAZ: Yes.

24 MS. VETTERHOFFER: Still on page 8 and 9 of

1 your testimony regarding non-EGU's, assuming that  
2 CAIR is not -- federal CAIR is not vacated by the  
3 Court, do you know what happens to the NOx SIP call  
4 in 2009?

5 MR. KOLAZ: Are you -- The NOx SIP call for each  
6 use is incorporated into the CAIR program and is  
7 conducted through the CAIR program. As far as  
8 non-EGU's, that would probably be a better question  
9 for me to ask you because the Illinois EPA has a  
10 rule -- There is a rule that is active and on the  
11 books for non-EGU's that requires allowances to be  
12 issued to non-EGU's to satisfy the NOx SIP Call.  
13 Those allowances have not been issued nor has there  
14 been any provision made to state how facilities can  
15 comply with subpart U in the absence of receiving the  
16 allowances that the rule says they will receive.

17 There is still the obligation that those  
18 non-EGU's meet the NOx SIP Call next year. And I  
19 know there is a pending action before the Board  
20 that's been pending for a couple years. And I know  
21 there's periodic status strengths, but I am unaware  
22 of what's going to happen or what the Agency's intent  
23 is. I will simply state though that that is a rule  
24 that's been submitted to US EPA and it's part of the

1 State's SIP.

2 As far as my view is today, it's still  
3 required to be met, and it takes some attorneys to  
4 decide how a company can comply without receiving  
5 allowances the rule says they should receive. But  
6 the obligation does not go away. In some fashion,  
7 the Illinois EPA is going to have to show the US EPA  
8 next year that the non-EGU's are complying with  
9 NOx SIP Call. That is an obligation on the State as  
10 well as on the non-EGU's.

11 MS. VETTERHOFFER: Under Illinois' CAIR rule,  
12 which has been adopted by the Board, are non-EGU's  
13 allowed to participate in CAIR's NOx training  
14 program?

15 MR. KOLAZ: No.

16 MS. VETTERHOFFER: In the citation at the top of  
17 page 9 of your testimony regarding the NOx SIP Call  
18 and NOx RACT, didn't US EPA justify this rationale as  
19 follows? US EPA said, quote, at the time that EPA  
20 promulgated the NOx SIP Call rule, EPA estimated that  
21 in the NOx SIP Call control case -- and then I'm  
22 paraphrasing a bit -- the non-EGU's subject to the  
23 State's cap and trade program would achieve a  
24 60 percent reduction in levels?

1 MR. KOLAZ: That is -- Let me look at that. I  
2 can tell you that's close to what they said, but not  
3 exactly the context in which they said it. I do have  
4 that citation here.

5 MS. VETTERHOFFER: I have it as well.

6 MR. KOLAZ: If you could just give me a minute.  
7 That's a very important point to be made.

8 MR. DAVIS: What's the citation of that  
9 statement?

10 MS. VETTERHOFFER: I believe it was the final  
11 implementation rule for the eight-hour ozone at  
12 71657. I can find out for you.

13 And actually I skipped a bit, but I was  
14 actually quoting straight from the very first column  
15 at the top.

16 MR. KOLAZ: And I have that. Let me read the  
17 whole paragraph. And let me start by saying what it  
18 says is, for the reasons that I'll read, US EPA  
19 believes that the NOx SIP Call creates beyond-RACT  
20 emission reductions because US EPA considers RACT to  
21 be in the range of 30 to 50 percent and that the  
22 NOx SIP Call reductions were on the order of  
23 60 percent. Therefore, it was beyond RACT. It was  
24 the justification for saying, therefore, US EPA would

1 consider the NOx SIP Call.

2 It says, "At the time that EPA promulgated  
3 the NOx SIP Call rule, EPA estimated that in the  
4 NOx SIP Call control case EGU's would achieve a  
5 64 percent reduction beyond the base case  
6 requirements and that the non-EGU's subject to the  
7 State's cap and trade program would achieve a  
8 60 percent reduction from uncontrolled levels. These  
9 EGU and non-EGU reductions were clearly beyond the  
10 30 to 50 percent expected from a RACT program. We  
11 stated in the final NOx SIP Call rule that the  
12 reductions achieved by that program represent  
13 reductions beyond those required by Title 4 or  
14 Title 1 RACT."

15 MS. VETTERHOFFER: To your knowledge, have the  
16 sources subject to subpart U that are located in the  
17 non-attainment areas in Illinois achieved a  
18 60 percent reduction from uncontrolled levels?

19 MR. KOLAZ: I believe so.

20 MS. VETTERHOFFER: Do you have any supporting  
21 documentation?

22 MR. KOLAZ: I do. And this is documentation  
23 that is shared with the Illinois EPA.

24 The NOx SIP Call rule for non-EGU's went

1     into effect in 2004, and it allocated allowances at a  
2     level that would represent the reduction that  
3     Illinois EPA and US EPA agreed was necessary in  
4     Illinois. That reduction, you know, should have been  
5     sufficient to meet all of the requirements of the  
6     NOx SIP Call.

7                 Now, the last year that I have available  
8     for Illinois shows that in 2007 Illinois EPA issued  
9     4,817 allowances to non-EGU's, again, by operating  
10    within those allowances. That would mean that you  
11    would have the NOx SIP Call reductions which US EPA  
12    says in the reference I read would be 60 percent. In  
13    that same year, the NOx emissions from those affected  
14    units was 2,415 tons, which is half of what they were  
15    allotted, which would be well beyond what US EPA says  
16    is a 60 percent reduction. So I would say that would  
17    be more on the order of 80 percent. And that's a  
18    statewide total.

19                MS. VETTERHOFFER: So are you saying that your  
20    document shows a 60 percent reduction in NOx levels  
21    from uncontrolled levels?

22                MR. KOLAZ: No. The document itself doesn't.  
23    What I'm saying is when you consider the method that  
24    was used by the Illinois EPA and US EPA to establish

1 the allowance level, which itself is supposed to  
2 represent a reduction. And that reduction, as US EPA  
3 says, can be done by a company applying controls,  
4 which some did. It could be achieved by buying  
5 allowances. US EPA recognizes that as being an  
6 equally effective method and a very economic method  
7 for achieving the air quality goals.

8           So I'm saying the fact of 4,817 allowances  
9 were issued in itself establishes what US EPA says  
10 was a 60 percent reduction in what I'll call  
11 uncontrolled levels. But I'll point out that even  
12 then some companies had lower NOx burners than  
13 others. But it was from a base line. I'm saying  
14 because of that, if I can show you, as this document  
15 does, that companies operated at half of what they  
16 were allowed, then clearly that's beyond -- even  
17 beyond the 60 percent that US EPA says that allowance  
18 number represents.

19           HEARING OFFICER FOX: Ms. Vetterhoffer, if I may  
20 interrupt you for a moment.

21           Mr. Davis, Mr. Kolaz has referred to a  
22 couple of specific documents. One I believe is a  
23 citation from the Federal Register and the second  
24 document I believe -- correct me if I'm wrong -- that

1 describes emission reductions attributable to  
2 subpart U. Do you have paper copies of those that  
3 you might be willing to move into the record as  
4 hearing exhibits?

5 MS. HIRNER: The one -- Can I answer this  
6 question? I don't know what the procedure is.

7 MR. DAVIS: I don't see why not.

8 MS. HIRNER: The one are reductions from  
9 companies that we had -- I don't know. I think we  
10 have to find if that's public information or not.

11 MR. KOLAZ: We shared this document with  
12 Illinois EPA in the past.

13 MR. DAVIS: Then, yes. I guess I can just enter  
14 these both as exhibits.

15 MS. BASSI: Mr. Fox, will these be put on the  
16 website so that everyone can see them?

17 HEARING OFFICER FOX: I will note that you have  
18 requested that and ask our assistant clerk to do so  
19 at his earliest opportunity.

20 MS. BASSI: Not the Federal Register. We don't  
21 need the Federal Register.

22 HEARING OFFICER FOX: But, yes, I will ask our  
23 assistant clerk to do so specifically in request to  
24 your request, Ms. Bassi.



1           Mr. Davis, do I hear a motion to admit the  
2 two documents that you've handed to me as exhibits in  
3 this hearing?

4           MR. DAVIS: Yes, please.

5           HEARING OFFICER FOX: Having moved that the  
6 Federal Register, Volume 70, page 71657, be admitted  
7 as Hearing Exhibit No. 6 and that the document  
8 entitled Summary of NOx Budget Allocations and Usage  
9 2004 to 2007 be admitted as Hearing Exhibit No. 8, is  
10 there any opposition to the motion?

11           Neither seeing nor hearing any, they will  
12 be marked and admitted as those two hearing exhibit  
13 numbers.

14           And, Mr. Davis, I appreciate your help in  
15 supplying copies of those. Thank you.

16           And, Ms. Vetterhoffer, I interrupted you.  
17 I appreciate your forbearance in letting me do that.  
18 Please continue.

19           MS. VETTERHOFFER: Thank you.

20           In Exhibit 8 -- that's now Exhibit 8 in  
21 this hearing -- wasn't the non-EGU allocation in  
22 subpart U based on a reduction from a projected 2007  
23 inventory?

24           MR. KOLAZ: Yes.

1 MS. VETTERHOFFER: So it's based on an old  
2 projection, not actual uncontrolled emissions; is  
3 that correct?

4 MR. KOLAZ: Well, it's -- The term  
5 "uncontrolled" is oftentimes used by the Agency and  
6 others in a very general sense to represent emissions  
7 as they exist at a certain point in time. There's  
8 rarely an effort made to determine what controls are  
9 actually in place at any given unit. In that sense,  
10 that's correct.

11 MS. VETTERHOFFER: So there were no CEMS,  
12 continuous emission monitoring systems, in place when  
13 you did the projection on -- when those projections  
14 were made in your Exhibit 8?

15 MR. KOLAZ: Well, there should have been. CEMS  
16 have been around for a very long time.

17 MS. BASSI: Could I ask a clarifying question?

18 HEARING OFFICER FOX: Please, Ms. Bassi. Go  
19 ahead.

20 MS. BASSI: Ms. Vetterhoffer, what year -- I'm  
21 sorry. I got lost here. What year were the  
22 projections made?

23 MS. VETTERHOFFER: It looks like they were based  
24 on 1995 emission levels.

1 MS. BASSI: Okay.

2 MS. VETTERHOFFER: So you're acknowledging that  
3 they were projections though; is that correct?

4 MR. KOLAZ: Well --

5 MS. VETTERHOFFER: These are based on reductions  
6 from projected 2007 inventory?

7 MR. KOLAZ: Are you referring to numbers I  
8 present in my --

9 MS. VETTERHOFFER: The allocation.

10 MR. KOLAZ: The allowances that the Agency  
11 issued?

12 MS. VETTERHOFFER: Yes.

13 MR. KOLAZ: I'm sure they were. The Agency and  
14 US EPA established the rule, established the  
15 reductions, wrote the rule, and told companies to  
16 comply with the rule. So I assumed, in essence, it  
17 was a project we were all involved in.

18 MS. HIRNER: If I could.

19 The Agency provided us with those numbers,  
20 so I think it would be more appropriate for the  
21 Agency to describe how they came up with those  
22 original numbers than it would be for us to try to  
23 figure out how the Agency came up with the initial  
24 projection.

1 MS. VETTERHOFFER: Well, I'm not asking to  
2 describe how the Agency came up with those things.  
3 I'm simply pointing out that they were, in fact,  
4 projections.

5 MS. BASSI: So put it in comment.

6 MR. KOLAZ: I mean, the thing is -- I'm trying  
7 to be helpful here. What I'm saying in my testimony  
8 is the Agency is attempting to satisfy the US EPA's  
9 requirement for NOx RACT. At the October 14 hearing,  
10 the Agency was asked if it was their goal to go  
11 beyond RACT, and they said, no, simply to meet RACT.  
12 I made the analysis to determine that the Agency was  
13 aiming for a specific emission target that would  
14 require them to go beyond RACT and, indeed, there  
15 wasn't.

16 Now, I'm going back to US EPA and saying,  
17 "Well, US EPA, since you are the ones who have to  
18 approve the Agency's plans, what do you say is  
19 NOx RACT?" The US EPA in this document we've talked  
20 about says NOx SIP Call is beyond RACT. Now, whether  
21 they're wrong and there's new information or  
22 whatever, what this says is if you submit -- Even  
23 now. Even without this rule, if you submit a RACT  
24 demonstration that shows you're satisfying the

1 NOx SIP Call, for the ozone part of the RACT  
2 obligation US EPA, by its own admission, would accept  
3 that. That's really the point of what I'm trying to  
4 say.

5 Now, I assume that if somebody went back  
6 and reanalyzed all this data -- I mean, certainly the  
7 data available today with all the continuous emission  
8 monitors is certainly more precise. But I don't know  
9 that it's correct to go back 10 or 12 years and try  
10 to guess or question the basis for which both US EPA  
11 and Illinois EPA established a rule that is still on  
12 the books.

13 MS. VETTERHOFFER: Wasn't the NOx SIP Call a  
14 trading program to reduce long-range transport of  
15 ozones?

16 MR. KOLAZ: Yes.

17 MS. VETTERHOFFER: So then it is not a local  
18 controlled program? In other words, a source located  
19 in Chicago could trade with a company in New Jersey  
20 and still comply with the rule?

21 MR. KOLAZ: Yes.

22 MS. VETTERHOFFER: Would the air quality in  
23 Chicago benefit from such a trade?

24 MR. KOLAZ: It could.

1 MS. VETTERHOFFER: Is it possible that it would  
2 not benefit from such a trade?

3 MR. KOLAZ: It's possible.

4 MS. VETTERHOFFER: Isn't it true that one of the  
5 deficiencies that the Court raised when it vacated  
6 the federal CAIR is that a trading program doesn't  
7 address non-attainment areas? In other words, it  
8 doesn't guarantee benefits in non-attainment areas?

9 MR. KOLAZ: I never testified to that -- the  
10 details of what was involved in that decision which  
11 is still being mulled over in the courts, so I really  
12 don't know. I do know from the documents that US EPA  
13 published in the Federal Register on CAIR they did  
14 talk about multiple purposes for CAIR, multiple  
15 benefits, both ozone reduction and fine particulate  
16 reduction. The Agency itself in this attainment --  
17 in the documents it provides for the Chicago ozone  
18 attainment demonstration, appendix A and B, talked  
19 about the impact of NOx controls. And somehow  
20 sometimes they don't help with the local level and  
21 help more at the longer range level. So I think it's  
22 a very complex question that might be site specific  
23 and area specific.

24 MS. VETTERHOFFER: In your summary and

1 conclusions of IERG's position regarding this  
2 proposal on pages 11 and 12 of your testimony, you  
3 seem to be saying that no further control measures  
4 need to be implemented in a non-attainment area. Is  
5 that a fair characterization of your position?

6 MR. KOLAZ: Yes. I think that's probably very  
7 close to my position.

8 MS. VETTERHOFFER: Do you consider the air  
9 quality in Chicago and the Metro East area to be good  
10 enough so that Illinois does not need to seek further  
11 emission reductions?

12 MR. KOLAZ: I think the Illinois EPA by its  
13 document that it has on its website agrees that it  
14 is. They're requesting that the Chicago area be  
15 designated as attainment. That's certainly not based  
16 on the impact of this rule. At the same time, as I  
17 mentioned, they include information in their  
18 appendix A and B on that website that shows the fine  
19 particulate levels are below 15 micrograms per cubic  
20 meter.

21 There is still a problem in the Metro East  
22 area, and that's a local problem, as the Agency has  
23 said before, that they're dealing with. But the  
24 Agency's already submitted attainment demonstration

1 for Metro East. So -- And that's why I use the words  
2 it's close to what I conclude. I think that we're  
3 substantially closer to having attainment for the  
4 current standards that we're faced with today than  
5 the Agency's rule and testimony and documents would  
6 indicate.

7 MS. VETTERHOFFER: You testified earlier that  
8 the Chicago non-attainment area is not currently  
9 meeting the stricter ozone and PM 2.5 standards,  
10 correct?

11 MR. KOLAZ: I did. And that's correct.

12 MS. VETTERHOFFER: And the Illinois EPA included  
13 in its notice of public hearing that you've been  
14 referencing for their non-attainment -- or for their  
15 attainment demonstration is they're also at that  
16 public hearing going to be taking comment on  
17 establishing boundaries for the non-attainment area  
18 to be established pursuant to the strength in the  
19 2008 ozone standard. Are you aware of that?

20 MR. KOLAZ: You know, I wasn't before lunch, but  
21 I am now.

22 MS. VETTERHOFFER: And we can make the notice of  
23 the public hearing for the attainment demonstration  
24 an exhibit for this hearing. I don't actually have



1 any more copies other than this one.

2 HEARING OFFICER FOX: Mr. Kaleel, you had  
3 mentioned that there were some attachments to that  
4 that would be beneficial -- suggested that they'd be  
5 beneficial.

6 Does the document you have,  
7 Ms. Vetterhoffer, include those?

8 MS. VETTERHOFFER: It doesn't. It's simply the  
9 notice of public hearing.

10 HEARING OFFICER FOX: It might be best in the  
11 interest of completeness with the help of your good  
12 office, Mr. Kaleel, to have submitted a complete  
13 document since those have been referred to.

14 MR. KALEEL: If I could just clarify, the  
15 document we were referring to earlier was the  
16 attainment demonstration for the 1997 ozone standard.  
17 What we're referring to here at the same public  
18 hearing, which I think takes place in this building  
19 next week, we also noticed that we will be taking  
20 comments on the -- what we think the appropriate  
21 boundaries should be for the new non-attainment area  
22 to address the 2008 ozone standard. So they're  
23 separate documents. We'd be happy to provide both.

24 HEARING OFFICER FOX: Having heard references to

1 both of them, it sounds as if you're willing to  
2 supply copies of both of them as a filing with the  
3 Board subsequent to the hearing?

4 MR. KALEEL: Yes.

5 HEARING OFFICER FOX: Thank you very much,  
6 Mr. Kaleel. It's much appreciated.

7 MS. VETTERHOFFER: And, again, earlier you  
8 testified that at least one area that you're aware of  
9 that's downwind of Chicago isn't currently meeting  
10 the new standards, or were you speaking of the old  
11 standards?

12 MR. KOLAZ: Well, if they don't meet the old,  
13 they won't meet the new.

14 MS. VETTERHOFFER: Isn't Illinois obligated to  
15 seek further emission reductions to meet the new  
16 stricter standards?

17 MR. KOLAZ: Is your question saying that this  
18 rule is designed to meet those new standards?

19 MS. VETTERHOFFER: No. I'm simply saying is  
20 Illinois obligated to take steps to seek further  
21 emission reductions to meet the new standards?

22 MR. KOLAZ: Not necessarily. Not necessarily.  
23 The Agency is obligated -- it will be obligated at  
24 some point in the future to develop an attainment

1 strategy that shows how that standard would be met in  
2 Illinois. And just as its ozone document we keep  
3 referring to shows that current, on-the-books control  
4 is sufficient, it's possible -- it's not a prediction  
5 on my part, but it's possible that the Agency could  
6 show that when considering the motor vehicle emission  
7 reductions you mentioned earlier as being part of the  
8 plan that's a federal program, when the federal  
9 diesel program is in place, when CAIR is in place,  
10 when everything that's already going down the pipe is  
11 in place, it will be sufficient to attain the new  
12 fine particulate and new ozone standard in which case  
13 the Agency could conclude that there are no further  
14 emission reductions needed. So it is obligated to  
15 develop a plan. It's not automatic that they have to  
16 develop an emission reduction.

17 What does seem to be the case in this rule  
18 is that the stated reasons in the attainment -- in  
19 the Statement of Reasons is that it's to attain the  
20 current standards and to develop RACT. We keep  
21 bringing in these other things as if somehow those  
22 have a role in this rule. That's why I mentioned  
23 earlier -- actually in some of the first questions we  
24 answered -- that maybe it's more appropriate if the

1 Agency is attempting to address reductions in the  
2 future for the new standards that there be a second  
3 stage or phase of this rule rather than trying to  
4 mush this together into a rule that is supposedly for  
5 one purpose, but it is really being somewhat designed  
6 for another. That's what's messing up the whole  
7 thing, having these very strict limits, which are  
8 achievable given enough time and money, but not in  
9 the time frame that the Agency's sticking in the rule  
10 because the Agency's trying to comply with a rule  
11 that really was due. They should have submitted the  
12 RACT in September of '06, so we're two years beyond  
13 that. Now, they're trying to make up that time.  
14 That's the dilemma.

15 But I think the question you raised is a  
16 very good one. What should we be doing about the new  
17 standards, and should we be doing something about the  
18 new standards in this rule? If we do it in this  
19 rule, how can we structure the rule to satisfy the  
20 current requirements and the new requirements?

21 MS. VETTERHOFFER: On page 12 of your testimony,  
22 you seem to be saying that if the State is slow  
23 enough in submitting its NOx RACT rule the  
24 requirement goes away. Is that a fair

1     characterization of what you're saying?

2             MR. KOLAZ: Well, I would never say it that way.

3             MS. VETTERHOFFER: Is that, in essence, what  
4     you're saying?

5             MR. KOLAZ: It is, in essence, what happens.  
6     And there's a very good example of that that US EPA  
7     has in their Clean Air Interstate Rule. Let me  
8     explain.

9             When US EPA came out with their Clean Air  
10    Interstate Rule, they proposed a plan that involved  
11    trading. When they proposed that plan, they said  
12    they considered that their Clean Air Interstate Rule  
13    would represent RACT for nitrogen oxides both for  
14    ozone and fine particulate. It would also do other  
15    things, but we're just focusing on nitrogen oxides.  
16    And the plan -- You know, the first year for  
17    compliance with CAIR is January 1, 2009. And they  
18    were sued by the National Resource Defense Council  
19    who said that's not possible to say that that's  
20    NOx RACT if NOx RACT is not being applied at each and  
21    every source.

22            US EPA came back -- and, again, we have the  
23    documents that we can provide -- and in various  
24    places in that document basically said that RACT

1 is -- what's reasonably available is a factor of the  
2 time. In order to make the maximum reductions by  
3 January 1, 2009, electric generating units would have  
4 to make certain decisions on what sources to control,  
5 and they could not control every source equally.  
6 Therefore, if these electric generating units -- What  
7 US EPA thought they would do is pick the most  
8 efficient economically and emission reductionwise  
9 units to control. By doing that there would be more  
10 emission reductions by January 1, 2009, than there  
11 would be if they tried to do some level of control in  
12 every single unit. So US EPA was not saying that  
13 given five more years there couldn't be more done.  
14 They were just saying in that time frame allowed.

15 What I'm saying is a rule proposed in 2005  
16 or '06 by the Illinois EPA RACT would look much  
17 different than a rule that's proposed in 2008, 2009,  
18 or '10 compliance state. So I am saying by delaying  
19 you are changing what's reasonably available.

20 MS. VETTERHOFFER: On page 13 of your testimony,  
21 you correctly list the dates by which Illinois should  
22 have submitted and implemented NOx RACT rules. Isn't  
23 it true that US EPA can't approve Illinois attainment  
24 demonstrations for ozone and PM 2.5 until Illinois

1 addresses this requirement?

2 MR. KOLAZ: That's correct.

3 MR. DAVIS: Can we take a minute or two just to  
4 collect?

5 HEARING OFFICER FOX: Yes. Why don't we take a  
6 break until 2:30.

7 MR. DAVIS: That would be fine. Thank you.

8 HEARING OFFICER FOX: Very well.

9 (WHEREUPON, a recess was had.)

10 HEARING OFFICER FOX: Ms. Vetterhoffer was in  
11 the course of questions. If you're ready to resume,  
12 thank you for your patience.

13 MS. VETTERHOFFER: Thank you.

14 Isn't it true that US EPA can't approve a  
15 redesignation request for either ozone or PM 2.5  
16 until Illinois addresses their NOx RACT requirement?

17 MR. KOLAZ: That's correct.

18 MS. VETTERHOFFER: On page 12 of your testimony,  
19 you state that the Agency's compliance date of May 1,  
20 2010, is, quote, inconsistent with the US EPA's  
21 requirement, closed quote, and you question how the  
22 Agency's proposed NOx RACT limits would contribute to  
23 attainment of the ozone standard or advance the  
24 PM 2.5 standard date. We asked Ms. Hirner this

1 earlier as well. But isn't it true that the  
2 Agency has changed its compliance date for the  
3 NOx RACT rule from January 1, 2009, to May 1, 2010,  
4 specifically in response to IERG and other industry's  
5 comments that the 2009 compliance date wasn't  
6 achievable?

7 MR. KOLAZ: The date was January 1, 2009,  
8 originally. It has been changed to May 1, 2010. Is  
9 that what you were asking?

10 MS. VETTERHOFFER: And would you agree that it  
11 was in response to IERG's comments that the original  
12 date was not achievable?

13 MR. KOLAZ: I think that was the Agency's  
14 counter-offer.

15 MS. VETTERHOFFER: Does IERG now feel that the  
16 current compliance -- or since IERG now feels that  
17 the current compliance date is inconsistent with  
18 US EPA requirements, is IERG now recommending that  
19 the Agency change the date back to January 1 of 2009?

20 MR. DAVIS: We already answered this question.

21 MR. KOLAZ: I can answer your question.

22 MS. VETTERHOFFER: Okay. Go ahead.

23 MR. KOLAZ: No.

24 MS. VETTERHOFFER: Thank you.



1           MR. KOLAZ: Because the problem is connected  
2 with some of the earlier questions you asked which  
3 had to do with timing, and timing in the case of RACT  
4 is everything. And I know I keep saying the same  
5 thing. But I think there's nothing that illustrates  
6 this problem better than saying that if the Agency is  
7 proposing an attainment demonstration for ozone in  
8 Chicago that says we can attain with on-the-books  
9 controls and does not cite this rule and if the  
10 Agency is providing data that says we've attained the  
11 ozone standard, then what is the point of this rule?  
12 I'm not saying there's not a point to this rule in  
13 some fashion because, as you've mentioned earlier,  
14 there's the new standards and there's various other  
15 things coming on the horizon. But I'm saying these  
16 other issues are not articulated sufficiently well to  
17 understand how they contribute to that rule.

18           I'm saying that a completely different  
19 approach needs to be done because US EPA said,  
20 "Submit the ozone RACT SIP by September of 2006 and  
21 implement RACT by May 1, 2009." So the Agency  
22 rule -- compliance date of May 1, 2010, does not  
23 comply with that federal requirement. US EPA said  
24 that the fine particulate RACT needed to be in place

1 by January 1, 2009. May 1, 2010, is not January 1,  
2 2009.

3 As you have said -- and you're absolutely  
4 correct -- the Agency still has to address RACT. In  
5 the case of ozone, they have to address RACT by  
6 showing that RACT has been implemented, and they can  
7 do that in the ways I've already talked about. In  
8 the case of fine particulate, they would have to  
9 address the reasonably available control measure by  
10 showing that implementing those cannot advance the  
11 compliance date by one year. How can you advance the  
12 compliance date by one year when you're implementing  
13 the rule after the compliance date? That's my whole  
14 point. So you do need to take a completely different  
15 approach to addressing your obligations, but I don't  
16 think it's by formulating this kind of thing you have  
17 here.

18 HEARING OFFICER FOX: Ms. Bassi, did I see you  
19 indicate that you had a follow-up question?

20 MS. BASSI: He already answered the question I  
21 was going to ask.

22 HEARING OFFICER FOX: Very well. Thanks.

23 Ms. Vetterhoffer, we're sorry to interrupt.

24 MS. VETTERHOFFER: On page 15 of your testimony,

1     you indicate that some IERG member facilities require  
2     up to three to five years to plan for new capital  
3     projects. Are you referring specifically to  
4     petroleum refineries?

5             MR. KOLAZ: Petroleum refineries are one group,  
6     but not solely.

7             MS. VETTERHOFFER: What other facilities are you  
8     referring to?

9             MR. KOLAZ: Well, electric-generating units are  
10    a good example. Subpart M requires those units to  
11    meet a limit of .09 by May 1, 2009. That's not  
12    possible. In fact, the Agency's own CPS and MPS  
13    which was promulgated in 2007 gives these industries  
14    to 2012 to implement a NOx limit of .11. So that's  
15    kind of incongruous. If that rule gives them five  
16    years to implement a higher number, how can they  
17    possibly implement a lower number in a fraction of  
18    the time? That's an example. And it is true that  
19    right now those companies are signed up for CPS or  
20    MPS. Therefore, why do you need subpart M?

21            MS. VETTERHOFFER: Would you agree that  
22    subpart M addresses compliance date issues according  
23    to use?

24            MR. KOLAZ: No. I don't know how it does.

1 MS. VETTERHOFFER: You testified earlier that  
2 subpart M references the MPS and the CPS. Do the MPS  
3 and CPS address compliance issues for each use?

4 MR. KOLAZ: They do. If those limits for those  
5 units are RACT -- if .11 for NOx is RACT by 2012,  
6 then what is the point of having .09 by May 1, 2010,  
7 in that rule? From my evaluation of the modeling  
8 that LADCO did on behalf of Illinois, the modeling  
9 does not include .09. The Agency is, in essence,  
10 saying, "We have a rule that we don't intend on  
11 applying to EGU's. And we don't have modeling, and  
12 we don't use .09." My point is what is the function  
13 of subpart M?

14 MS. VETTERHOFFER: Getting back to the petroleum  
15 refineries, are you aware that the Agency has been  
16 working with the refineries to address compliance  
17 date issues?

18 MR. KOLAZ: The refineries and other companies  
19 besides refineries as well.

20 MS. VETTERHOFFER: Do you think that the  
21 extensive deconstruction planning required by  
22 petroleum refineries is typical of other industries?

23 MR. KOLAZ: I think each industry has their own  
24 complexities that they have to deal with, which

1 includes, not the least anymore, is financing. As  
2 I've had so much experience with some companies,  
3 financing now is a whole different situation than it  
4 was six months ago. And that's an aspect of planning  
5 for these projects that cannot be overlooked.

6 MS. VETTERHOFFER: On page 16 of your testimony,  
7 you state that economic reasonableness is affected by  
8 the period of time allowed for compliance. Are you  
9 saying that a control measure becomes more  
10 economically reasonable if more time is allowed for  
11 compliance?

12 MR. KOLAZ: Yes.

13 MS. VETTERHOFFER: On page 7 of your  
14 testimony --

15 MR. RAO: Can I ask a follow-up?

16 Following up to the earlier question, do  
17 you have any suggestions as to, you know, how much  
18 more time some of these industries may need to make  
19 it economically reasonable?

20 MR. KOLAZ: I do. And I mentioned a little bit  
21 earlier about the 2014 and '15 time frame, which, as  
22 you know, on the CPS and MPS rule for  
23 electric-generating units we've talked about actually  
24 has compliance in that time frame -- in 2012 and

1 beyond. Illinois' Clean Air Interstate Rule has --  
2 and the US EPA rule kicks in -- has a 2009 to '14  
3 time frame and ratchets down in 2015. So I think,  
4 generally speaking, that would be the time frame we'd  
5 be talking about.

6 But then, again, we'd be talking about  
7 making those reductions for an entirely different  
8 purpose than is before us now. That's why I think if  
9 the Agency, having done all the work they've done to  
10 establish these technologies and these limits, wants  
11 to consider working on an another phase of the rule  
12 with a later compliance date to address -- or attempt  
13 to address fine particulate and, you know, the  
14 24-hour -- the new 24-hour fine particulate standard  
15 and the new ozone standard, then that's a different  
16 matter, but something -- one that we'd be willing to  
17 talk about.

18 MR. RAO: In relation to this proposal, the  
19 Agency has what you have recommended as three options  
20 in the discussions on the compliance date. Are those  
21 what you suggest for this proposal?

22 MR. KOLAZ: Yes.

23 MR. RAO: On page 21 you had three options that  
24 you had recommended to address problems with the

1 compliance date issues?

2 MR. KOLAZ: Yes, it is.

3 MR. RAO: Okay.

4 MR. KOLAZ: And I'll add there's other  
5 possibilities as well besides these three options.  
6 Especially with the discussion we've had today, it's  
7 clear that the Agency, as they've asked their  
8 question, clearly are anticipating that there are  
9 benefits to this rule and purposes to this rule that  
10 were not included in the Statement of Reasons. On  
11 that basis, we somewhat, in my testimony or my  
12 answering questions today, have somewhat modified  
13 these by saying, "Well, if you're really trying to do  
14 something for the future, why don't we establish a  
15 future-looking attainment date and discuss that?"

16 MR. DAVIS: I think it would be appropriate if  
17 we could take this opportunity to ask the Agency  
18 maybe a few questions with regard to, you know,  
19 whether or not these purposes that they've been  
20 assuming in the rule are, you know, actual purposes  
21 behind this proposal.

22 HEARING OFFICER FOX: The Agency has filed a  
23 Statement of Reasons. It has filed testimony for the  
24 first hearing that occurred on October 14 and have

1 not pre-filed testimony specifically for this hearing  
2 and have not sworn in any witnesses. I think the  
3 Agency has spoken quite clearly about what its  
4 purpose is and what its reasons are in adopting this.

5 MR. DAVIS: Okay. Thank you.

6 MR. RAO: Okay. And thank you.

7 MS. VETTERHOFFER: On page 7 of your testimony,  
8 you assert that for EGU's in the Chicago  
9 non-attainment area compliance with CAIR is presumed  
10 to satisfy NOx RACT for ozone. You also assert that  
11 for non-EGU's compliance with the NOx SIP Call  
12 satisfies the RACT requirements. Isn't it true,  
13 however, according to the US EPA's final eight-hour  
14 ozone limitation rule it states at their discretion  
15 they are free to conduct a case-by-case RACT  
16 determination for any source or RACT determinations  
17 or certifications for groups of sources?

18 MR. KOLAZ: Yes.

19 MS. VETTERHOFFER: In other words, states are  
20 not required to rely on the NOx SIP Call or on CAIR  
21 to satisfy RACT, correct?

22 MR. KOLAZ: That's correct. But the Agency has  
23 said they were attempting -- that their whole purpose  
24 was to satisfy the US EPA requirements for RACT, not



1 to go beyond RACT.

2 MS. VETTERHOFFER: Isn't it true that the US EPA  
3 also stated in its phase two of the eight-hour ozone  
4 implementation rule that a state has discretion to  
5 define RACT to require greater emission reductions  
6 than specified in EPA guidance?

7 MR. KOLAZ: Yes. As I stated, the Agency in  
8 their Statement of Reasons and in testimony  
9 October 14 said that was not their purpose, and my  
10 whole testimony has been premised on those  
11 statements.

12 MS. VETTERHOFFER: But you would agree that a  
13 state has discretion to do so?

14 MR. KOLAZ: Absolutely. That's why I refer to  
15 that emission reduction target. That would be what  
16 the Agency would do. We need more reductions than  
17 RACT would bring, and they would establish  
18 appropriate limits. As I keep saying and as the  
19 Agency stated, no, it would establish RACT and take  
20 whatever emission reductions resulted and put that  
21 in. But what you say is true, but that's not what  
22 I've heard so far from the Agency.

23 MS. VETTERHOFFER: During the last hearing,  
24 Dr. Staudt provided in his answers to pre-filed

1 questions information showing that SCR has been used  
2 for RACT at the Merrimac power plant in New  
3 Hampshire. Do you happen to recall that?

4 MR. KOLAZ: Yes.

5 MS. VETTERHOFFER: Do you have any reason to  
6 believe that Dr. Staudt is incorrect that SCR was  
7 used for compliance with New Hampshire's RACT  
8 requirement at the power plant in 1995?

9 MR. KOLAZ: No, no reason to not believe that.

10 MS. BASSI: I'm sorry. What year was that?

11 MS. VETTERHOFFER: 1995.

12 MR. KOLAZ: I will add that US EPA has said that  
13 SCR and SNCR are what they consider to be beyond  
14 RACT. Again, we're talking about US EPA being the  
15 ones who decide whether or not the Agency has  
16 satisfied RACT. In their mind, SCR is beyond RACT  
17 and so is SNCR.

18 MS. VETTERHOFFER: And, yet, US EPA approved  
19 New Hampshire's RACT plan as RACT, correct?

20 MR. KOLAZ: Yes. As you said, you can go beyond  
21 RACT. US EPA is not going to refuse any state's  
22 effort to do more than is required.

23 MS. VETTERHOFFER: And do you know if US EPA  
24 made a finding that New Hampshire's RACT was actually

1     beyond RACT?

2           MR. KOLAZ:  No, I don't know if they have.  I  
3     don't know that they would bother.  I think all they  
4     would make sure is that you've satisfied RACT.

5           MS. VETTERHOFFER:  Were you aware that SNCR has  
6     also been used to comply with RACT rules going back  
7     to 1995 and perhaps since?

8           MR. KOLAZ:  Yes.

9           MS. VETTERHOFFER:  So back in 1995 SNCR and SCR  
10    were both used as RACT, is that correct, by certain  
11    states?

12          MR. KOLAZ:  I am not surprised by what you've  
13    said.  I can't say I specifically looked, but I would  
14    not dispute what you're saying as being accurate.

15                 You know, one important thing to note is  
16    something you brought up earlier.  If a company's  
17    already made emission reductions, which many have  
18    because of the NOx SIP Call, the incremental  
19    reduction they would make with SCR would drive the  
20    cost -- the economics of the SCR quite extensively.  
21    Someone installing an SCR back in 1995 would in all  
22    likelihood not have been subject to any emission  
23    reductions, and the cost benefit analysis would be  
24    much different than what it would be to install that

1 today after companies have already taken steps to  
2 comply with the NOx SIP Call. So it might not be  
3 RACT.

4 I mean, the technology -- No question about  
5 what the technology can do. The important part of  
6 the analysis is what's reasonably available, and that  
7 has to do with timing. As the RACT definition says,  
8 it says RACT at a particular source. And so RACT for  
9 a facility in New Hampshire in 1995 does not mean  
10 that that's RACT for a facility in Illinois in 2008.

11 MS. VETTERHOFFER: Is it your opinion that,  
12 although SNCR and SCR have been used as RACT in other  
13 states, you believe that Illinois should not avail  
14 itself of the benefits of this technology?

15 MR. KOLAZ: That sounds kind of harsh to say it  
16 like that.

17 No. I think Illinois EPA needs to do --  
18 take appropriate steps to implement an emission  
19 reduction program that has very specific goals and  
20 outcomes. And I believe that heartily. And I worked  
21 for the Illinois EPA for over 30 years, you know, as  
22 chief of the bureau over there. I can sympathize  
23 with what the Agency needs to do here. I can  
24 sympathize with all the pressures that are on the

1 Agency right now.

2 I'm saying to put together a thoughtful or  
3 carefully structured rule takes a lot of time. It is  
4 highly complex. I think this very discussion we're  
5 having now of using this rule to fit a purpose that  
6 we haven't even tried to address, you know, with a  
7 future rule indicates, you know, to me a certain  
8 amount of frustration on the part of the Agency. I  
9 don't doubt that in looking forward five to six to  
10 seven years there will be many more SCR's and SNCR's  
11 installed. But to say that those can be done by  
12 May 1, 2010, I think is completely misconstruing the  
13 purpose of RACT. It's not questioning the ability of  
14 the technology.

15 I'll also add you have to look at the times  
16 that we're in right now, which has changed greatly in  
17 the last six months. I'm dealing with a lot of  
18 companies who could go out and in two hours have  
19 hundreds of millions of dollars worth of financing,  
20 but now can't do that. And you're talking about a  
21 much different time. And there's been no analysis  
22 done of that. A lot of analysis has been done on the  
23 ability of the technology, but not an analysis to  
24 show how that technology is reasonably available

1 today in Illinois.

2 MS. VETTERHOFFER: Doesn't the proposed RACT  
3 rule leave it up to the owner to choose the  
4 technology that best suits their needs rather than  
5 impose a particular technology?

6 MR. KOLAZ: It does except when you establish an  
7 emission rate. One of the options that was mentioned  
8 earlier said to put in case-by-case RACT. That was  
9 just an option we're saying could be done which would  
10 allow exactly what you're talking about. There would  
11 be no specific emission limit. You would say by  
12 May 1, 2009, come in and show what you can do. That  
13 would work. Some states -- Pennsylvania does that.  
14 It's case by case. There's no hard and fast emission  
15 limit. You come in and you show them what you can  
16 do, what the economics are, what the technology is.  
17 Then that becomes your RACT.

18 MS. VETTERHOFFER: I'm simply saying that  
19 Illinois' rule doesn't necessarily say X amount of  
20 technology must be implemented, correct?

21 MR. KOLAZ: Not in those words. But it  
22 establishes a limit that leaves no questions to what  
23 you're going to have to do in some cases.

24 MS. BASSI: Can I ask a follow-up?

1 HEARING OFFICER FOX: Ms. Bassi, please go  
2 ahead.

3 MS. BASSI: Mr. Kolaz, did you review the  
4 technical support document that the Agency submitted  
5 with its proposal?

6 MR. KOLAZ: I did look at that, yes. I didn't  
7 review it as thoroughly as I have these other  
8 documents that were part of my testimony.

9 MS. BASSI: Do you recall in the technical  
10 support document whether the Agency assumed certain  
11 types of control measures that would be applicable to  
12 various industrial sectors?

13 MR. KOLAZ: Yes.

14 MS. BASSI: And would a basis for that be that  
15 certain boiler -- you can control a boiler with some  
16 things and you can't use those same things to control  
17 a different type of equipment?

18 MR. KOLAZ: Yes.

19 MS. BASSI: So is it the case that, even though  
20 the rule establishes only emission limits, there are  
21 some presumptions as to the control technology that  
22 is necessary to achieve those limits?

23 MR. KOLAZ: Yes.

24 MS. BASSI: Thank you.

1 MS. VETTERHOFFER: On pages 22 and 23 of your  
2 pre-filed testimony, you discuss the differences  
3 between the expected emissions using the proposed  
4 rule and the expected emissions using IERG's  
5 alternative emission rates, and you reference  
6 Exhibit 2 at the end of your testimony. In  
7 Exhibit 2, using simple subtraction, the Agency's  
8 projected emissions in industrial boilers under the  
9 proposed RACT are 2,068 tons versus 3,054 tons using  
10 your alternative rates. Does that seem right to you?

11 MR. DAVIS: Could you repeat that, please?

12 MS. VETTERHOFFER: The proposed -- For  
13 industrial boilers, the Agency's projected emissions  
14 are 2,068 tons versus 3,054 tons using IERG's  
15 recommended rates. And that's in Exhibit 2.

16 MR. KOLAZ: Exhibit 2 that I have shows that the  
17 Agency's reduction for their proposal would be 3,231  
18 tons and that IERG's reduction would be 2,244 tons.

19 MR. RAO: That's the same numbers we have in our  
20 copies.

21 MS. VETTERHOFFER: Just one second.

22 Those numbers in the first column you have  
23 the annual emissions. The total's 5,298.9. In the  
24 second -- well, the fourth column are estimated



1 reductions. We simply subtracted the estimated  
2 reductions to get what your emissions would be.

3 MR. DAVIS: Oh, I see.

4 MR. KOLAZ: Yes, I see what you're saying.

5 MS. VETTERHOFFER: Sorry for the confusion.

6 MR. KOLAZ: So --

7 HEARING OFFICER FOX: I'm sorry,  
8 Ms. Vetterhoffer. You took the figure -- for  
9 instance, the 3,231.3 tons in reduction that this  
10 exhibit shows from -- that would be attributable to  
11 the Agency's proposal and subtracted that from the  
12 total of 5,298 to yield actual emissions and not the  
13 emissions reductions?

14 MS. VETTERHOFFER: That's correct.

15 HEARING OFFICER FOX: Got it. Thank you very  
16 much.

17 MS. VETTERHOFFER: Well, either using those  
18 numbers or the actual numbers in the table, would  
19 that make your alternative about 50 percent higher in  
20 emissions than the Agency's proposed RACT reduction  
21 or about 1,000 tons higher?

22 MR. KOLAZ: I hate to talk those kind of  
23 percentages. Again, you're just talking about a fact  
24 of math, and that's correct.

1 But I would point out that since RACT is  
2 supposed to be 30 to 50 percent reduction, IERG's  
3 number as 42 percent reduction is right in the range  
4 of RACT. The Agency's proposal of 61 percent exceeds  
5 RACT limits. So we're trying to show that we can get  
6 a comparable, acceptable reduction with our numbers.  
7 And that, again, was always the point of my  
8 testimony.

9 MS. VETTERHOFFER: I'm going to switch to a few  
10 questions about the TSD. You testified on page 16  
11 that the Agency's technical support document relied  
12 on information that's inconsistent with the rule,  
13 such as they relied on these units or units that are  
14 smaller than those affected by the rule. Are you  
15 specifically referring to Tables 2-2 and 2-3 of the  
16 TSD, which are the data provided from the Cleaver,  
17 Brooks study?

18 MR. KOLAZ: That certainly is an example of what  
19 I was talking about.

20 MS. VETTERHOFFER: Is there any other data in  
21 the TSD that, in your opinion, is inconsistent with  
22 the rule from the perspective of new units or units  
23 smaller than those affected by the rule?

24 MR. KOLAZ: You're saying my testimony said it

1 was inconsistent with the rule?

2 MS. VETTERHOFFER: Yes. Relied upon  
3 installations inconsistent with the content --

4 MR. KOLAZ: With the content of the rule, yes.  
5 Right. Yes, that is what I said. And I was  
6 referring -- We can talk about the Cleaver, Brooks  
7 table as one example.

8 MS. VETTERHOFFER: Can you just right now cite  
9 any other areas of the TSD that you think are  
10 similarly inconsistent with the content of the rule?

11 MR. KOLAZ: I did not tabulate those instances.  
12 In response to Ms. Bassi's comment, I said I did -- I  
13 forgot the term I used. But I did look through the  
14 TSD. I did not really thoroughly analyze it like I  
15 had other documents. The purpose of my review of the  
16 TSD, which I think is what you're talking about, is I  
17 view the TSD as being a good document for identifying  
18 what technology is capable of doing as a general  
19 matter. What I did not see is a thorough analysis  
20 that showed how that technology could be considered  
21 reasonably available given the time line in the  
22 Illinois EPA rule and the specific circumstances that  
23 exist in Illinois.

24 As Dr. Staudt testified -- and I agree with

1 him wholeheartedly -- he said individual  
2 installations have different challenges, different  
3 footprints, different situations that can affect the  
4 economics. While I would not have expected a  
5 detailed case-by-case analysis of each facility in  
6 Illinois, I would expect some analysis that talked  
7 about units of the size and of the types that we had.  
8 Instead, there seemed to be a combination of a  
9 variety of sources of information that were compiled  
10 without specific regard to relating those  
11 circumstances we face in Illinois. So in that sense,  
12 again, I think it's useful to see what can be done,  
13 but I don't think it's convincing in terms of saying  
14 this, therefore, is reasonably available control  
15 technology in Illinois as designed into our proposed  
16 rule. And that was the point of that part of my  
17 testimony.

18 MS. VETTERHOFFER: You state on page 5 of your  
19 testimony that US EPA defines RACT as the lowest  
20 emission limitation that a particular source can meet  
21 by applying a control technique that is reasonably  
22 available considering technological and economic  
23 feasibility. Do you agree with this definition of  
24 RACT?

1 MR. KOLAZ: Yes. That is the definition of  
2 RACT.

3 MS. VETTERHOFFER: Just to dissect this a  
4 little, the definition indicates that RACT is the  
5 lowest emission limit for a source considering two  
6 things, reasonably available considering  
7 technological feasibility and reasonably available  
8 considering economic feasibility. Would you agree  
9 with that?

10 MR. KOLAZ: Yes.

11 MS. VETTERHOFFER: Would it be fair to say that  
12 low NOx burners and other combustion controls,  
13 including ultra low NOx burners, are pretty widely  
14 used and are reasonably available for most  
15 facilities?

16 MR. KOLAZ: They're widely available. As a  
17 general matter, you could argue they're reasonably  
18 available.

19 MS. VETTERHOFFER: And you're aware that SNCR  
20 has been installed on hundreds of boilers, including  
21 industrial boilers, as discussed in the TSD, correct?

22 MR. KOLAZ: Could you say that one more time?

23 MS. HIRNER: If I could step back a minute  
24 though. When you asked the question about the low

1 NOx burners and you asked if they were available or  
2 widely available or generally available, and that  
3 answer, as Dave said, was yes. They're available,  
4 but we're not certain that they can meet the limits.

5 MS. VETTERHOFFER: Right. And I didn't ask  
6 that.

7 MS. HIRNER: I thought it was important to  
8 clarify instead of just saying yes. There's another  
9 part to that.

10 MS. VETTERHOFFER: Okay. Thank you.

11 Back to the question, and I'll restate it.

12 You're aware that SNCR has been installed  
13 on hundreds of boilers, including industrial boilers,  
14 as discussed in the TSD? Would you agree with that?

15 MR. KOLAZ: Yes.

16 MS. VETTERHOFFER: Since it has been used on  
17 industrial boilers as shown in the TSD, doesn't that  
18 mean it is available from the perspective of  
19 technological feasibility?

20 MR. KOLAZ: Maybe. And the maybe isn't on what  
21 I would consider to be technology. I've seen US EPA  
22 incorporate the aspect of timing and economics into  
23 technologically available. I would think it would be  
24 on the reasonably side. But I have a document where

1 US EPA talked about timing and economics as  
2 technically feasible.

3 With that clarification, I would say that  
4 in the term reasonably available technology there is  
5 the aspects of timing and economics depending upon  
6 where you want to put those two topics, whether you  
7 want them to be reasonably available or  
8 technologically available. With that caveat, I would  
9 say, yes, technically the equipment and the science  
10 is available. It is technologically available. You  
11 can go buy an NCR. You can go buy an SCR. You can  
12 buy a low NOx burner. These are not things that are  
13 being developed today. They are available.

14 MS. VETTERHOFFER: And similar to SNCR, SCR has  
15 been installed on hundreds of utility boilers and  
16 albeit fewer industrial boilers; is that correct?

17 MR. KOLAZ: I will not disagree with that. I'm  
18 not one to say how many. Certainly it's common. I  
19 haven't tabulated how many. If you say it's  
20 hundreds, I have no reason to question that.  
21 Somebody else here might have more knowledge on how  
22 many there is. I do know on industrial boilers from  
23 talking with non-IERG members, as you imply, it's not  
24 common on industrial boilers.

1 MS. HIRNER: And one other thing. We were  
2 talking about reasonably available, which is one part  
3 of the formula. But when you look at the definition  
4 of RACT, it's just not only available, but feasible  
5 as well. I mean, it's an additional part that we  
6 don't want to lose sight of. It's feasible as well.

7 MS. VETTERHOFFER: Dr. Staudt previously  
8 testified about SCR's when used as RACT on a utility  
9 boiler in New Hampshire. On page 34 of the TSD,  
10 because of the success of using SCR on utility  
11 boilers, there's good reason to use SCR's on ICI  
12 boilers. However, in many cases the cost of  
13 retrofitting SCR on an ICI boiler will make it less  
14 attractive for other approaches for NOx control. Do  
15 you agree with that statement?

16 MR. KOLAZ: I'm really -- I could agree that  
17 that's what Dr. Staudt said. I'm not questioning  
18 Dr. Staudt. I can't say that I have done an  
19 independent analysis. What you say is consistent  
20 with my general understanding.

21 MS. VETTERHOFFER: That's fine. Thank you.

22 Since you've testified that low NOx burners  
23 and other combustion modifications, such as ultra low  
24 NOx burners, are reasonably available technically, as



1 is SNCR and possibly SCR, doesn't that mean that,  
2 according to the definition of RACT, if these  
3 technologies are economically feasible as well they  
4 may be RACT? And I know you didn't make any  
5 representations about economic feasibility.

6 MR. KOLAZ: Could you state your question one  
7 more time?

8 MS. VETTERHOFFER: Sure.

9 You've testified that low NOx burners and  
10 other combustion modifications, such as ultra low NOx  
11 burners, are reasonably available technically, as is  
12 SNCR and perhaps SCR, doesn't that mean that,  
13 according to the definition of RACT, if these  
14 technologies are economically feasible they may be  
15 RACT?

16 MR. KOLAZ: You know, I'm trying to be careful  
17 in my answer because I'm not sure what you mean by,  
18 "May be RACT." That would cover part of the analysis  
19 involved in determining if it's RACT. If you did the  
20 economic analysis, that would involve a time frame.

21 MS. VETTERHOFFER: Well, you agree that the  
22 US EPA's factors are technologically feasible and  
23 economically feasible; is that correct?

24 MR. KOLAZ: Right. And keeping in mind that

1 timing is a component of that analysis.

2 MR. DAVIS: Can I ask a clarification?

3 You're asking him to ignore the portions of  
4 the definition that specify a particular source and  
5 economic feasibility?

6 MS. VETTERHOFFER: No.

7 I'm simply saying I know you didn't make  
8 the representation regarding economic feasibility.  
9 Let's just assume for a moment that they are  
10 economically feasible. You've testified that they're  
11 technically reasonable, available, and feasible.  
12 Could they be considered RACT?

13 MR. KOLAZ: If we're talking in a philosophical  
14 sense and not specific to this rule, I would agree.

15 MS. VETTERHOFFER: And doesn't the definition of  
16 RACT you cited state that it is -- stated that it is  
17 the lowest emission rate considering technical and  
18 economic feasibility?

19 MR. KOLAZ: That is the definition.

20 MS. VETTERHOFFER: And doesn't that mean that if  
21 the Agency specified a rate that was not the lowest  
22 emission rate considering technical and economic  
23 feasibility it would fall short of that?

24 MR. KOLAZ: No, that's not correct.

1 MS. VETTERHOFFER: Can you elaborate?

2 MR. KOLAZ: I will. As an example, in the fine  
3 particulate implementation rule, which I do cite in  
4 my testimony and the Agency cites in their Statement  
5 of Reasons, it says, if the State could not achieve  
6 significant emissions reductions during 2008 due to  
7 time needed to implement the potential measures or  
8 other relevant factors, then the State and EPA could  
9 conclude that there are no further reasonably  
10 available control measures for that area that would  
11 advance the attainment date by one year or more  
12 relative to the presumptive outer limit for  
13 attainment dates.

14 Keep in mind, as I said earlier, for fine  
15 particulates reasonably available control measures  
16 include RACT. That's a type consideration. In the  
17 case of ozone, the RACT limit, although it's a  
18 reasonably available control measure, is an absolute  
19 requirement. You have to do that.

20 So here's a case where you can come up with  
21 a reasonably available control technology and  
22 conclude that they can't advance the attainment date  
23 because you're not implementing it until, let's say,  
24 May 1, 2010. Therefore, you don't have to do it. So

1 that's not the only consideration.

2 MS. HIRNER: If I could add, we're talking about  
3 economically feasible. The Agency in its comments to  
4 Midwest Generation's questions said that the amount  
5 that they used for RACT was 2500 to \$3,000 per ton.  
6 So, you know, I would say that if you're putting  
7 something out and asking if it is economically and  
8 technologically feasible, then the presumption would  
9 be that it would cost no more than 2500 to 3,000 per  
10 ton. If it did de facto, it would not be RACT.

11 MS. VETTERHOFFER: And, Mr. Kolaz, you were  
12 citing the PM 2.5 description of what RACT is for  
13 ozone. Though you don't have the whole -- I was  
14 simply saying, you were citing the PM 2.5  
15 interpretation of what is RACT, but for ozone you  
16 don't have the RACT most advanced attainment date by  
17 a year or more; is that correct?

18 MR. KOLAZ: That's correct.

19 MS. VETTERHOFFER: And the definition we were  
20 citing is the one that's used for ozone; is that  
21 correct?

22 MR. KOLAZ: That's correct.

23 MS. HIRNER: At 2500 to 3,000 per ton maximum.

24 MR. KOLAZ: In the case of ozone, it is a

1 little -- there is a little nuance that's important  
2 to keep in mind. As was mentioned earlier, the  
3 Agency has been cited by the US EPA and put on notice  
4 that the sanction clock is ticking because they have  
5 not submitted their RACT demonstration. And that's  
6 for ozone. Not for fine particulates, just for  
7 ozone. That was due September 2006 except for EGU's.  
8 For EGU's it was due July 9 of 2009. The Agency can  
9 satisfy that NOx RACT requirement now, even without  
10 this rule, by submitting their NOx SIP Call in their  
11 proposal. My point is it can be a different type of  
12 analysis because the Agency -- I mean, the US EPA has  
13 clearly stated what they would expect as NOx RACT.

14 HEARING OFFICER FOX: Ms. Bassi?

15 MS. BASSI: To clarify then, Mr. Kolaz, are you  
16 saying that this, quote, absolute requirement for  
17 RACT for ozone or even RACT for PM 2.5 could be  
18 satisfied by a rule that is already either a rule in  
19 Illinois or a rule that's even in Illinois' SIP  
20 already?

21 MR. KOLAZ: Yes.

22 And to even clarify a little further, if  
23 the specific federal requirements are carefully  
24 attended to, it would have to be a rule that was in

1 effect by May 1, 2009. Though the CPS and MPS get  
2 additional reductions which will benefit Illinois'  
3 environment and is a good thing, my point is those  
4 reductions don't come by May 1, 2009.

5 MS. BASSI: Was the rule in effect by 2009?  
6 Does the rule have to be in effect or the reduction?

7 MR. KOLAZ: The reduction.

8 MS. BASSI: Okay.

9 MR. KOLAZ: The reductions have to occur by  
10 May 1, 2009. It's within 30 months after September  
11 2006 or the start of the first ozone season after  
12 that. 30 months is about roughly March of '09. The  
13 first ozone season's May 1.

14 Therefore, one strategy is to say that  
15 since, as we have talked about before, the attainment  
16 demonstration shows the NOx SIP Call on the books as  
17 enough. I would put in the NOx SIP Call that's  
18 already on the books, already been operating, and say  
19 that's NOx RACT.

20 MS. BASSI: For ozone?

21 MR. KOLAZ: For ozone, yes. And that sanction  
22 thing is only for ozone.

23 And you're done. I'm not suggesting throw  
24 away the rule and throw away all the planning that's

1    gone into this. I'm saying, if you're talking about  
2    the sanction issue somehow being tied into this rule,  
3    I'm saying it's not tied into the rule. It could be  
4    handled tomorrow if the Agency decided to do that.  
5    And then let this rule be developed in a way that  
6    really does consider what's needed in the future  
7    because truly the horse has left the barn on the  
8    current standards that we're trying to address.

9            MS. VETTERHOFFER: I don't have any other  
10   questions.

11           HEARING OFFICER FOX: No further questions of  
12   Mr. Kolaz from the Agency. You were complete with  
13   Ms. Hirner earlier; is that correct?

14           MS. VETTERHOFFER: Yes.

15           HEARING OFFICER FOX: Very good.

16           We are nearly to 3:30. We've been going  
17   for a couple of hours since lunch. Why don't we take  
18   a quick break and resume at 3:30. At that point we  
19   will begin with ConocoPhillips. I believe Mr. Dunn  
20   is still with us and prepared to give some questions.

21           (WHEREUPON, a recess was had.)

22           HEARING OFFICER FOX: Before we took a break for  
23   about 10 or 15 minutes, the Agency had indicated that  
24   it had completed its questions for Mr. Kolaz and

1 Ms. Hirner on the basis of their pre-filed testimony.  
2 According to the order that we had discussed at the  
3 top of the day, it was agreed that the next questions  
4 would be for Mr. Dunn who had pre-filed testimony on  
5 behalf of ConocoPhillips. Ms. Hodge was kind enough  
6 during the break to hand to me a copy of Mr. Dunn's  
7 pre-filed testimony plainly printed right off the  
8 Board's web page.

9 And, Ms. Hodge, I suspect you have a motion  
10 that you'd like to bring to the Board's attention?

11 MS. HODGE: Yes, I do. I would move to admit  
12 that.

13 HEARING OFFICER FOX: Excellent. Ms. Hodge has  
14 moved that that would be marked and admitted into the  
15 record in this proceeding as Exhibit No. 9. Is there  
16 any objection to its admission as such?

17 Neither seeing nor hearing any, Ms. Hodge,  
18 it will be marked as Exhibit No. 9.

19 As we also had discussed, if Mr. Dunn would  
20 like to begin with a brief summary or has any other  
21 statement to begin with, we can certainly move to  
22 that now and then to questions, of course, in due  
23 time.

24 MS. HODGE: Thank you.



1 HEARING OFFICER FOX: Sure.

2 MS. HODGE: My name is Katherine Hodge. I'm  
3 with the law firm of Hodge, Dwyer, Zeman, and I'm  
4 here today on behalf of ConocoPhillips. Mr. David  
5 Dunn, who is the environmental director at the  
6 ConocoPhillips Wood River Refinery, is here on behalf  
7 of ConocoPhillips to testify regarding the stringency  
8 and impact of the Agency's proposed limits for  
9 industrial boilers and process heaters. Also present  
10 is Monica Rios, an associate with my firm.

11 Before Mr. Dunn gets started here, I would  
12 just like to tell the Board we really do appreciate  
13 this opportunity to offer this testimony today and to  
14 also thank the Agency for some of our recent meetings  
15 and discussions on behalf of ConocoPhillips in an  
16 attempt to address some of our concerns with this  
17 rule.

18 The Wood River Refinery, which is located  
19 in Madison County in the Metro East area, is a crude  
20 oil refinery that refines thousands of barrels of  
21 crude oil per day. As part of its refining process,  
22 the refinery operates at least four boilers and 17  
23 process heaters that will be impacted by the Agency's  
24 proposed rule. Mr. Dunn's testimony today, as well

1 as his answers to any questions, will demonstrate the  
2 Agency's proposed limits for boilers and process  
3 heaters are too stringent. Mr. Dunn will also  
4 provide examples of the extensive cost to install  
5 NOx controls to comply with the proposed rule. In  
6 addition, his testimony would demonstrate why the  
7 proposed compliance date cannot be met by  
8 ConocoPhillips, which is the basis for  
9 ConocoPhillips' support of the Agency's recent  
10 discussions with refineries regarding extension of  
11 the proposed compliance date.

12 Mr. Dunn would like to make a brief  
13 statement for the record today, and then he is  
14 available to answer any questions on his pre-filed  
15 testimony.

16 HEARING OFFICER FOX: Very good. Mr. Dunn,  
17 please go ahead.

18 MS. HODGE: Do we need to swear?

19 HEARING OFFICER FOX: Yes. Thank you for  
20 reminding me.

21 (WHEREUPON, the witness was duly  
22 sworn.)

23 MR. DUNN: Good afternoon. I'm David Dunn, and  
24 I am the environmental director for ConocoPhillips at

1 the Wood River Refinery in Madison County. The  
2 facility refines over 300,000 barrels of crude oil a  
3 day and to do so operates six boilers and 41 process  
4 heaters. Of these units, four boilers and 17 process  
5 heaters are greater than 100 million Btu's and will  
6 be significantly impacted by the Agency's proposed  
7 rule. We have reviewed the Agency's proposal and  
8 determined that it requires overly stringent and  
9 unreasonable NOx controls for many of the refinery's  
10 boilers and heaters.

11 As discussed in more detail in my  
12 testimony, the refinery has recently installed ultra  
13 low NOx burners on a boiler as required under a  
14 consent decree entered into in 2005. The  
15 installation of the ultra low NOx burners, which were  
16 installed during a recent maintenance turnaround,  
17 took approximately 21 months, and we determined that  
18 the estimated cost per ton of NOx control is over  
19 \$20,000 per ton controlled.

20 Similarly, the refinery recently completed  
21 the installation of ultra low NOx burners on an  
22 existing process heater. This process heater did not  
23 have NOx emission-reducing burners prior to this  
24 project, and the project took approximately 18 months

1 to complete. The cost of control per ton of NOx is  
2 in excess of \$15,000 per ton, and this does not  
3 include the cost of a CEMS. In addition, the total  
4 cost of purchasing and installing CEMS for the rest  
5 of the affected units, both boilers and process  
6 heaters at the refinery, is estimated to be over  
7 \$12 million.

8 The cost per ton controlled for boilers and  
9 process heaters are in excess of the generally  
10 accepted amounts that the Agency has referenced in  
11 its own testimony. The proposed limits are too  
12 stringent and are beyond RACT. As stated in my  
13 testimony, ConocoPhillips supports a lower emission  
14 limit for boilers and process heaters as proposed by  
15 IERG.

16 My testimony also discusses the problems  
17 raised by the Agency's proposed averaging provisions.  
18 Although averaging plans allow for flexibility and I  
19 appreciate it, the Agency's proposed plan does not  
20 allow for consideration of important factors, such as  
21 credit for applicable units that are no longer in use  
22 after 2001, the installation of new replacement  
23 heaters with ultra low NOx burners after January 1,  
24 2002, and the reduction of firing in a process

1 heater. In addition, I'd like the Board to consider  
2 only requiring those units greater than 250 million  
3 Btu's per hour to require CEMS.

4 Although ConocoPhillips appreciates and  
5 supports the Agency's intention to allow a three-year  
6 extension for the installation of CEMS, annual  
7 performance testing is sufficient to demonstrate that  
8 the process heaters and boilers over 100 million  
9 Btu's per hour and under 250 million Btu's per hour  
10 meet the applicable limit. ConocoPhillips also  
11 supports the Agency's suggested alternate compliance  
12 schedule for refineries that we've discussed in our  
13 meetings.

14 The current proposed May 1, 2010,  
15 compliance deadline cannot be met by ConocoPhillips.  
16 In order to install the required controls,  
17 ConocoPhillips must evaluate all of the potentially  
18 affected units, complete engineering studies on each  
19 unit, obtain construction permits, order equipment,  
20 prepare for shutdown, and install the controls. The  
21 required pre-planning process and implementation will  
22 take at least 18 months for each heater.  
23 Installation of controls should be completed during  
24 scheduled turnaround times over the next several

1 years rather than forcing the refinery to take any  
2 unscheduled shutdowns. Consequently, ConocoPhillips  
3 will not be able to install the necessary controls  
4 considered in the compliance deadline -- considering  
5 the compliance deadline is approximately 16 months  
6 away and the proposed rule is not yet final.

7 I want to thank the Board for the  
8 opportunity to testify today and request that the  
9 Board take into consideration my testimony regarding  
10 the overly stringent RACT requirements and the  
11 averaging provision as well as compliance of deadline  
12 issues. And I'm happy to answer any question.

13 HEARING OFFICER FOX: Mr. Dunn, thank you. I  
14 suspect that there are some. We can proceed  
15 immediately to those if you're set.

16 MR. DUNN: That would be fine.

17 HEARING OFFICER FOX: Ms. Roccaforte, please go  
18 ahead.

19 MS. ROCCAFORTE: Just to emphasize again, it is  
20 true that ConocoPhillips and the Agency have had  
21 discussions concerning alternative compliance dates  
22 to the characteristics of the refinery?

23 MR. DUNN: That's true.

24 MS. ROCCAFORTE: It's true that the Agency has

1 indicated a willingness to work with ConocoPhillips  
2 to address these concerns?

3 MR. DUNN: And we have indicated that interest  
4 to you as well.

5 MS. ROCCA FORTE: And you are willing to continue  
6 to work with us?

7 MR. DUNN: Yes, I am.

8 MS. ROCCA FORTE: On page 6 of your testimony,  
9 you state that ultra low NOx burners are well beyond  
10 RACT. On page 8 you state, ultra low NOx burners are  
11 BACT. Does the proposed RACT rule require the use of  
12 ultra low NOx burners?

13 MR. DUNN: No, it does not.

14 MS. ROCCA FORTE: And the proposed rule just  
15 specifies an emission rate, correct?

16 MR. DUNN: That's correct. The proposed rule  
17 does propose an emission factor for RACT. It's not a  
18 given technology.

19 However, by setting that emission factor,  
20 you are setting de facto emission control  
21 technologies. Those technologies could be any of the  
22 things that were discussed in prior testimony.  
23 However, obviously we're looking for economic issues  
24 as well. Those economic issues drive those control

1 technologies down to something below the emission  
2 factors, either the .074 boilers or the .08 -- I'm  
3 sorry -- .08 for boilers, .07 for process heaters.  
4 That would indicate that we have -- we are looking at  
5 least at low NOx burners probably with FGR, flue gas  
6 recirculation, or ultra low NOx burners.

7 MS. ROCCAFORTE: If ultra low NOx burners are  
8 considered BACT, then is SCR BACT or beyond RACT?

9 MR. DUNN: It depends on the application. It  
10 could be -- If you're familiar with the BACT  
11 determinations, SCR can be determined as BACT in some  
12 cases, and ultra low NOx burners can also be  
13 considered BACT in other cases.

14 MS. ROCCAFORTE: Would you be surprised to learn  
15 that BACT was determined to be a combination of ultra  
16 low NOx burners, plus FGR, plus SCR's BACT for  
17 boilers at the ConocoPhillips refinery in Trainer,  
18 Pennsylvania?

19 MR. DUNN: I'm not aware of that.

20 MS. ROCCAFORTE: In forming your opinion, you  
21 expressed on page 8 that ultra low NOx burners were  
22 BACT. Did you examine the US EPA's RACT/BACT  
23 clearinghouse to determine what emission rate was  
24 specifically specified for ultra low NOx burners in



1 those cases where it was specified as BACT?

2 MR. DUNN: I have reviewed the BACT  
3 clearinghouse and looked at some of those things.  
4 BACT clearinghouse is difficult to interpret. I will  
5 grant you that.

6 MS. ROCCAFORTE: Would you be surprised if such  
7 review showed that BACT emission limits where ultra  
8 low NOx burner technology was determined to be BACT  
9 were far lower than what is proposed as RACT limits,  
10 typically in the range of 0.02 to 0.04 pounds per  
11 MMBtu's?

12 MR. DUNN: I'm not surprised that that is  
13 included in the BACT analysis. I also am aware that  
14 some of the ultra low NOx burner emission limits are  
15 actually as high as .07.

16 MS. ROCCAFORTE: So then isn't the proposed RACT  
17 limit of 0.08 pounds per MMBtu less than BACT?

18 MR. DUNN: Yes, until you determine whether you  
19 have a requirement -- unless you specify a technology  
20 that reaches just 0.08 or 0.07. Without that  
21 specification, I can't determine whether ultra low  
22 NOx burners are the actual technology that I need to  
23 use or not or whether low NOx burners would satisfy  
24 that.

1 MS. ROCCAFORTE: Can you say what the emission  
2 levels of ultra low NOx burners are on gas-fired  
3 boilers?

4 MR. DUNN: It depends on the type of fuel you're  
5 using.

6 MS. ROCCAFORTE: Gas-fired?

7 MR. DUNN: Again, it depends on the type of gas  
8 you're burning. Natural gas tends to get lower  
9 emission factors. The .02 to .04 is probably about  
10 right. For refinery fuel gas, which is our primary  
11 gaseous combustion, we typically see higher than  
12 that, up to .05.

13 MS. ROCCAFORTE: Page 27 of the technical  
14 support document describes lean pre-mixed combustion  
15 and ultra low NOx burners. Do you, by any chance,  
16 have that in front of you?

17 MR. DUNN: I do not.

18 MS. HODGE: We will in just a minute.

19 We have it now.

20 MS. ROCCAFORTE: What is the NOx emissions level  
21 shown in figure 2-12 for an ultra low NOx burner?

22 MR. DUNN: I don't see ultra low NOx burner in  
23 2-12.

24 MS. ROCCAFORTE: Is the rapid mix burner an

1 ultra low NOx burner?

2 MR. DUNN: I don't know.

3 MS. ROCCA FORTE: Let's assume -- Assume it is.  
4 What is the emission rate, for example, at a load of  
5 100 MMBtu per hour?

6 MR. DUNN: That says eight parts per million.

7 MS. ROCCA FORTE: And the NOx emission levels  
8 shown in tables 2-9 and 2-10 -- I'm sorry. Page 28.

9 On page 28, the NOx emission level shown in  
10 table 2-9 and 2-10 for ultra low NOx burners are  
11 around seven to eight parts per million; is that  
12 correct?

13 MR. DUNN: That's what the tables say, yes.

14 MS. ROCCA FORTE: So this data indicates that  
15 ultra low NOx burners can provide emission rates of  
16 around 9 parts per million or less, correct?

17 MR. DUNN: With lean pre-mixed combustion and  
18 probably using natural gas. Although I'm not certain  
19 of that.

20 MS. ROCCA FORTE: So isn't nine parts per million  
21 under 0.015 pounds per MMBtu?

22 MR. DUNN: I don't know how I can leap to that  
23 in my own mind. That's a calculation that's  
24 necessary, and I can't do that in my head.

1 MS. ROCCAFORTE: Would you look at page 14 of  
2 the technical support document. If we look at -- For  
3 example, Baxter Healthcare has an 8.9 parts per  
4 million. If you go over to the NOx column, the  
5 column right after it, it's .014 pounds per MMBtu.  
6 Do you see that?

7 MR. DUNN: I do see that.

8 MS. ROCCAFORTE: Does that help you with the  
9 conversion?

10 MR. DUNN: It doesn't help me with the  
11 conversion. Is certainly helps -- If that is  
12 accurate -- Which I don't know if it is or not. But  
13 if that is accurate, that is what the table reads.

14 MS. ROCCAFORTE: Assuming it's accurate then,  
15 wouldn't that be below the proposed emission rate of  
16 0.08 in the proposed rulemaking?

17 MR. DUNN: If that is accurate, that would be  
18 below that. Again, it depends on is this lean mix?  
19 Is it refinery fuel gas? Are there other factors  
20 that could raise that emission factor?

21 MS. ROCCAFORTE: If your company, by its choice,  
22 chooses to use ultra low NOx burner technology and is  
23 capable of achieving significantly lower NOx  
24 emissions than the proposed limits, isn't it true

1     that under the averaging provisions of the rule ultra  
2     low NOx burners would not be required on all of your  
3     boilers and process heaters?

4           MR. DUNN: That's our hope. We probably will  
5     overcontrol some boilers and heaters using ultra low  
6     NOx burners in order to offset those boilers and  
7     heaters that we will not control. However, even if  
8     the cost -- Even at that particular point, even with  
9     averaging, the cost of this rule is very significant.  
10    It's going to be large even with the averaging  
11    provision. I'm still estimating. Based on what I've  
12    been able to do with the existing averaging provision  
13    and even some of the other things that we talked  
14    about in our meeting, we're still looking at  
15    controlling more than half of our heaters and boilers  
16    in order to make the desired emission factors.

17           MS. ROCCAFORTE: You have estimated the cost of  
18    using -- utilizing the averaging provisions?

19           MR. DUNN: We've done back-of-the-envelope costs  
20    only. We have not done any detail engineering.

21           MS. ROCCAFORTE: On page 7 of your testimony,  
22    you state that the estimated cost of controlling NOx  
23    from one of your boilers is in excess of \$20,000 per  
24    ton. Would you explain how you derived this figure?

1           MR. DUNN: I can share some with the Board. To  
2 go into details would be not useful for this  
3 particular time.

4           But the cost was based on a similar cost  
5 determination completed and demonstrated in a paper  
6 done by -- presented that discussion by the  
7 Pennsylvania RACT determination. There is a -- and a  
8 loan repayment over 15 years based on a 7 percent  
9 loan recommended by the IEPA in November of 2007, a  
10 conversation that we had trying to understand how to  
11 estimate the cost per ton. The cost calculations  
12 were based on uncontrolled boiler and heater emission  
13 factors. In this particular case, AP42 is what we  
14 were using to calculate the actual emissions from  
15 this heater and then installing technology in this  
16 particular case, ultra low NOx burners, to reach the  
17 permitted emission factor.

18           Instead of using what Pennsylvania used to  
19 estimate the potential cost of the technology itself,  
20 the capital cost itself, I actually used the  
21 authorization for expenditure and cost estimated by  
22 my company and then broke it down from there. The  
23 estimate -- The estimate includes electricity,  
24 material and maintenance, overhead, property tax,

1 insurance, administration costs, as well as the cost  
2 of capital.

3 MS. ROCCAFORTE: Do you, by any chance, have a  
4 hard copy of that cost analysis to share with the  
5 Board?

6 MR. DUNN: I actually shared that with the IEPA  
7 in January of 2008 under confidential business  
8 information. I do not have a copy of that today to  
9 share.

10 MR. RAO: Would it be possible for you to  
11 provide a copy at a later time?

12 MR. DUNN: As long as it's recognized it's under  
13 confidential business information, I think we can  
14 probably provide that.

15 MS. HODGE: Subject to trade secret.

16 HEARING OFFICER FOX: Precisely. And our  
17 procedural rules do spell out a procedure for filing  
18 it as that and keeping it as such.

19 MS. ROCCAFORTE: Wouldn't the actual emissions  
20 level achieved be lower than the permitted level?

21 MR. DUNN: We hope so. The actual emissions  
22 could be lower. But, again, because of our need to  
23 ensure compliance, we will permit things. And that's  
24 what I base my calculations on. They could be lower.

1 That would be to the benefit of Metro East.

2 MS. ROCCA FORTE: Can you share with us what the  
3 actual and permitted levels were?

4 MR. DUNN: The permitted levels for the -- Let's  
5 see. For the boiler, the permitted level is 0.07  
6 pounds of NOx per million Btu's.

7 Are we currently talking about the boiler?

8 MS. ROCCA FORTE: And the actual?

9 MR. DUNN: The actual emissions factor for the  
10 boiler -- I do not have the boiler emissions factor.  
11 But it is -- It is less than the AP42 factor. We are  
12 required -- That particular boiler is required to run  
13 testing for the NOx credits program, so it is not the  
14 AP42 factor.

15 MS. ROCCA FORTE: In an averaging plan, wouldn't  
16 those extra tons of NOx you left out of the cost  
17 calculation be useful to other units?

18 MR. DUNN: It could be. However, in developing  
19 a compliance plan, I must comply with that. So I  
20 don't know what the -- How can I project what the  
21 future actually would be in order to include that in  
22 my averaging plan? I have to base it on some  
23 baseline number in order to ensure that I can meet my  
24 averaging plan.



1 MS. ROCCA FORTE: With regard to the specific  
2 installation that you described on page 7 as costing  
3 \$20,000 per ton of NOx, how old was the previous set  
4 of burners?

5 MR. DUNN: I don't know that answer. I can  
6 provide that later. I don't have it right now.

7 MS. ROCCA FORTE: Do you know, by any chance, how  
8 old the previous burner management system was?

9 MR. DUNN: I do not have that with me here. I  
10 can provide that to you if you'd like.

11 MS. ROCCA FORTE: Do you think they're more than  
12 ten years old?

13 MR. DUNN: I will say probably.

14 MS. ROCCA FORTE: Can you explain why this cost  
15 is so much higher than the published literature?

16 MR. DUNN: I haven't actually reviewed the  
17 published literature at least in as much detail as  
18 you provide. And I have -- I'm not certain why it  
19 is.

20 However, the capital cost for this project  
21 includes a significant modification of the fire box.  
22 In order to put the ultra low NOx burners in, we did  
23 have to modify the fire box, which actually took the  
24 boiler off line for about three months. And that

1 modification was actually to accommodate the  
2 difference in flame -- the difference in flame length  
3 that the ultra low NOx burners have included with it.  
4 There was also a modification to improve the  
5 combustion mixing actually within the fire box in  
6 order to reduce CO emissions.

7 MS. ROCCA FORTE: On page 10 of your testimony,  
8 you state that the project cost to install ultra low  
9 NOx burners on one of your process heaters was in  
10 excess of \$15,000 per ton. Can you explain how you  
11 derived this figure?

12 MR. DUNN: That calculation was done in the same  
13 manner as the boilers.

14 MS. ROCCA FORTE: And I assume you can't -- don't  
15 have the cost analysis to share with the Board today?

16 MR. DUNN: That's correct.

17 MS. ROCCA FORTE: Can you provide one?

18 MR. DUNN: Yes. Again, subject to the business  
19 confidentiality issues and trade secret.

20 MS. ROCCA FORTE: On page 11, you state that the  
21 cost per ton of NOx to control other heaters is  
22 expected to be greater than the cost in the example  
23 you just mentioned. Why will they be more expensive?

24 MR. DUNN: There's a variety of reasons. We

1     selected the heaters that -- the heaters and boilers  
2     that are being modified because they are going to be  
3     the easiest ones to modify. We had a requirement  
4     within our consent decree that we had to put --  
5     install ultra low NOx burners or take additional  
6     controls to eliminate the NOx emissions up to  
7     30 percent of our total NOx emissions from the  
8     facility. So we were looking for where can we get  
9     the easiest, least expensive projects to take  
10    advantage of the greatest amount of emission controls  
11    for NOx. We've identified these as the two that  
12    have -- are currently controlled as the ones that are  
13    the easiest and also fit with the schedule in order  
14    to comply with the consent decree schedule.

15           The reason they're the easiest is because  
16    particularly the heater -- the first heater -- the  
17    ultra low NOx burners fit very nicely into the fire  
18    box. The fire box itself had to have a slight  
19    modification, but not a significant modification.  
20    Therefore, it controlled the cost. It also helped  
21    that the -- that particular facility was going  
22    through a turnaround, had the right timing, and we  
23    can get the project done and implemented on a timely  
24    basis.

1           The boilers itself -- The boiler -- Because  
2   we have just a figure of time, we have extra boilers  
3   running. We have not an excess number of boilers,  
4   but we have an available boiler to bring online. We  
5   can take that boiler offline and modify it. A  
6   three-month outage for a process unit -- You might  
7   imagine a three-month process outage would  
8   significantly affect economics, so we have to hit  
9   turnarounds with the process units. Boilers we can  
10   take offline and do modifications more easily. Still  
11   it's a long time to have a boiler out.

12           Other projects that this proposed rule  
13   would require will -- could require significant  
14   modifications around several -- well, of the fire  
15   boxes. In fact, some of them could require that we  
16   tear down the existing heaters and rebuild new  
17   heaters. So the cost for that will be very  
18   significant.

19           MR. RAO: Can I ask a follow-up question?

20           Mr. Dunn, do you have the turnaround cycle  
21   for your process heaters? Is that something that you  
22   maintain, like a log?

23           MR. DUNN: We project a turnaround schedule, yes,  
24   in order for our planning purposes.

1           MR. RAO: Would it be possible to provide the  
2 Board with the schedule for your heaters just to give  
3 us an idea of what's scheduled for --

4           MR. DUNN: Recognizing that the heaters -- We're  
5 not doing turnarounds on heaters themselves. We do  
6 turnarounds on units. We do not have an excess  
7 number of heaters, so we can't take heaters out and  
8 run other heaters harder. I will have to -- Excuse  
9 me.

10          MS. HODGE: We will certainly check on that.  
11 But that moves even beyond, you know, some of the  
12 trade secret claims that we might make. There's some  
13 real business confidential issues. We will be happy  
14 to check on it. If we can get clearance to figure  
15 out a way to submit it, we will.

16          MR. RAO: Thank you.

17                 I was looking at your pre-filed testimony  
18 on page 5 where, Mr. Dunn, you mentioned how this  
19 turnaround affects when these heaters can be  
20 upgraded. So I just wanted to get a better handle on  
21 what are these projection dates.

22          MR. DUNN: In my testimony, I say we typically  
23 complete one -- a complete cycle every five to six  
24 years depending on the effort required to make the

1 turnaround.

2 MS. ROCCAFORTE: If it helps the Board out, we  
3 have been in negotiations with the refineries. We  
4 understand the situation. We're working on amending  
5 the proposal to address that with turnarounds.

6 MR. RAO: So whatever you come up with will  
7 address their issues?

8 MS. ROCCAFORTE: Yes.

9 MR. RAO: Okay.

10 MR. JOHNSON: How many units? You say heaters  
11 and units.

12 MR. DUNN: I think my answer is nine. I think  
13 that's right. I don't have it off the top of my head  
14 where that's at.

15 MR. RAO: You have nine operating units?

16 MR. DUNN: No. We have nine units that would  
17 require -- that have the 17 heaters that could  
18 require modification.

19 MS. ROCCAFORTE: Regarding the cost estimates of  
20 the \$20,000 per ton and \$15,000 per ton shown on  
21 pages 7 and 10 of your testimony, what was the  
22 capital recovery period you used in your calculation?

23 MR. DUNN: I believe the capital recovery period  
24 was 15 years.

1 MS. ROCCAFORTE: In each case, what percent of  
2 the total capital cost did you amortize per year?

3 MR. DUNN: I don't have that off the top of my  
4 head.

5 MS. ROCCAFORTE: Do you know if the amortization  
6 rate changed for each year? Was it straight line or  
7 an accelerated cost recovery method?

8 MR. DUNN: I don't know the answer to that.

9 MS. ROCCAFORTE: What cost of capital did you  
10 assume?

11 MR. DUNN: 7 percent.

12 MS. ROCCAFORTE: Is that expressed in constant  
13 dollars? If so, what was the base year of the  
14 dollars?

15 MR. DUNN: I don't know.

16 MS. ROCCAFORTE: Do you know how much of the  
17 cost was indirect charges, such as overhead?

18 MR. DUNN: I don't have that off the top of my  
19 head, but I know that it was significant.

20 MS. ROCCAFORTE: In the capital cost, did you  
21 include new burner controls?

22 MR. DUNN: New as in?

23 MS. ROCCAFORTE: New burner controls?

24 MR. DUNN: Oh, burner control system?

1 MS. ROCCAFORTE: Yes.

2 MR. DUNN: Thank you.

3 Yes, I believe so. I believe that's the  
4 case because I believe the projects themselves had to  
5 be modified in order to move from -- move to ultra  
6 low NOx burner.

7 MS. ROCCAFORTE: What other changes to the  
8 boiler or process heater were performed besides the  
9 burner replacement that contributed to the overall  
10 cost?

11 MR. DUNN: Other than the burner replacement, on  
12 the floor -- For the heater project, the floor of the  
13 heater had to be modified slightly. And also there  
14 was some additional -- There's some additional  
15 changes in order to ensure CO destruction -- carbon  
16 monoxide destruction efficiency. And then for the  
17 boiler project there was some demolition that  
18 occurred on the outside of the heater in order to get  
19 access to installing the new systems. You had to  
20 modify the heater box itself. We had to modify --  
21 Well, we also installed some controls -- not  
22 controls, but modifications to ensure, again, CO  
23 destruction efficiency. And that's what I can recall  
24 at this particular time. It's a fairly involved



1 project.

2 MS. ROCCA FORTE: Did any heater tubes get  
3 replaced?

4 MR. DUNN: I don't believe that heater tubes  
5 were replaced in either one of those particular  
6 projects. Although they are anticipated.

7 MS. ROCCA FORTE: Do you know how much work was  
8 done in the boiler process heater that was not in the  
9 immediate vicinity of the burners?

10 MR. DUNN: I don't know that.

11 MS. ROCCA FORTE: Do any of the modifications  
12 fall in the category of general facilities? By that  
13 I mean other improvements not directly part of the  
14 boiler --

15 MR. DUNN: I don't believe so other than the  
16 boiler -- the demolition of the former pits burner.

17 MS. ROCCA FORTE: What was the initial and final  
18 NOx emission rates assumed for each case? And were  
19 these actual controlled rates, or were they based on  
20 required emission rates?

21 MR. DUNN: Would you say that again, please?

22 MS. ROCCA FORTE: What was the initial and final  
23 NOx emission rates assumed for each case? And were  
24 these actual controlled rates, or were they based on

1 required emission rates?

2 MR. DUNN: For the heater -- The AP42 emission  
3 factor used for the heater was at .271 pounds per NOx  
4 per million Btu's. The permitted limit is .04 pounds  
5 per NOx per million Btu's. For the boiler, as I've  
6 said, I don't know -- I don't recall what the  
7 original emission factor was, and I don't have -- I  
8 don't have that with me. But the permitted rate was  
9 .07 pounds per NOx per million Btu's.

10 MS. ROCCAFORTE: What capacity factor was  
11 assumed in the calculation?

12 MR. DUNN: In other words -- Can you reask --  
13 rephrase?

14 MS. ROCCAFORTE: Usage level? The usage level?

15 MR. DUNN: We're assuming 100 percent capacity.

16 MS. ROCCAFORTE: You state on page 6 of your  
17 testimony that the proposed limit would require ultra  
18 low NOx burner technology. Why is that?

19 MR. DUNN: This is for the boiler?

20 MS. ROCCAFORTE: Yes.

21 MR. DUNN: We actually looked at low NOx burner  
22 technology and ultra low NOx burner technology. The  
23 vendors -- The burner vendors would not guarantee the  
24 required .08 pounds NOx per million Btu's for low NOx

1 burners, and they -- we finally -- and we arrived at  
2 ultra low NOx burners. They would guarantee  
3 performance up 0.07 pounds NOx per million Btu's for  
4 the burners based on refinery fuel gas consumption,  
5 but they would not guarantee any lower factor than  
6 that.

7 MS. ROCCAFORTE: You mentioned the consent  
8 decree earlier. Can you tell us the basis of the  
9 consent decree?

10 MR. DUNN: The basis? Why we have a consent  
11 decree? It's a variety of reasons, but focusing on  
12 NOx RACT. The company -- The US EPA alleged that  
13 this particular facility was not permitting things  
14 correctly for modifications that have occurred in the  
15 past, and we negotiated a settlement that said we  
16 would improve our operations by implementing certain  
17 emission controls.

18 MS. ROCCAFORTE: So is it issues specific to the  
19 Wood River Refinery or the company as a whole?

20 MR. DUNN: No. It is a ConocoPhillips company  
21 as a whole consent decree.

22 MS. ROCCAFORTE: And did those allegations  
23 entail modification of the heat transfer surface?

24 MR. DUNN: I'm not certain. I was not part of

1 the -- Actually I wasn't at Wood River Refinery when  
2 it was negotiated.

3 MS. ROCCAFORTE: Is it fair to say that  
4 ConocoPhillips considered this work routine  
5 maintenance, but US EPA thought it was major  
6 modification, thus, the consent decree?

7 MR. DUNN: Kathy, will you answer that for me?

8 MS. HODGE: Yes, I can answer that.

9 And I will tell you, too, I was not  
10 involved in this particular consent decree, but I  
11 have been involved in other global consent decrees,  
12 such as this one. It's my understanding that US EPA  
13 treats them all pretty much the same. They presume  
14 liability. There's no specific findings of  
15 liability. They just presume liability and liability  
16 for potential modifications. And then the parties  
17 come to the table, and the defendants offer up what  
18 kinds of reductions -- emission reductions that  
19 they're willing to offer. So I'm not aware of  
20 anywhere there were actual findings of liability in  
21 this kind of situation.

22 MS. ROCCAFORTE: Can she be sworn?

23 MS. BASSI: I'd like to know the relevance of it  
24 all.

1 MS. HODGE: I would characterize that as a legal  
2 statement.

3 MS. ROCCA FORTE: Well, he mentioned the consent  
4 decree in his testimony.

5 On page 9, you recommend the limit of 0.12  
6 pounds per MMBtu for gas-fired boilers. What control  
7 technology would be required to meet this limit?

8 MR. DUNN: It could be anything. Let's see. It  
9 could be a variety of things. It could be flue gas  
10 recirculation. It could be no control at all. It  
11 could be SCR. It could be ultra low NOx burners. It  
12 could be low NOx burners.

13 MS. ROCCA FORTE: On page 9 of your testimony,  
14 you state that the proposed emission limit will  
15 require that all affected process heaters install low  
16 NOx burners or ultra low NOx burners that you claim  
17 are well beyond RACT. Are you saying low NOx burners  
18 are well beyond RACT or just ultra low NOx burners?

19 MR. DUNN: Low NOx burners are probably -- Based  
20 on what you're -- what the Illinois EPA has defined,  
21 low NOx burners are probably marginally -- they may  
22 or may not be RACT. They may not meet the emission  
23 limit. That's probably the case -- or may be the  
24 case. Ultra low NOx burners are -- will control

1 below the proposed emission factors.

2 MS. ROCCA FORTE: Aside from equipment installed  
3 pursuant to the consent decree, has ConocoPhillips  
4 added any other NOx controls at the Wood River  
5 Refinery?

6 MR. DUNN: Yes. We are currently in the process  
7 of installing SCR's on our catalytic cracking units,  
8 and we have installed -- on many of our new units we  
9 have installed ultra low NOx burners as well.

10 MS. ROCCA FORTE: What was the motivation for  
11 that?

12 MR. DUNN: Permitting, BACT.

13 MS. ROCCA FORTE: What is the typical emission  
14 rate of a refinery process heater on an uncontrolled  
15 basis per pounds per MMBtu?

16 MR. DUNN: We currently use -- We have not  
17 tested most of our process heaters because we have  
18 not been required to up to this point. We're  
19 currently using the AP42 factor of 0.27 pounds per  
20 NOx per million Btu.

21 MS. ROCCA FORTE: And what emission rate would  
22 you expect from a process heater after the  
23 installation of a low NOx burner?

24 MR. DUNN: Again, it depends on its use. But

1 typically we expect that an ultra low NOx burner will  
2 be able to achieve between .04 and .05 pounds NOx per  
3 million.

4 MS. ROCCA FORTE: That was low NOx?

5 MR. DUNN: Oh, I'm sorry. I assumed ultra low  
6 NOx.

7 Low NOx? I haven't actually looked at it  
8 for our particular facility. But I believe that the  
9 literature says .06 to .08 pounds NOx per million, if  
10 my recollection's correct.

11 MS. ROCCA FORTE: On page 11, you state that the  
12 cost per ton of NOx to control other heaters is  
13 expected to be greater than the cost in the example  
14 you provided. Why would they be more expensive?

15 MR. DUNN: I addressed this in part previously.  
16 We expect that the cost per ton will go up as the  
17 heaters become more and more difficult to retrofit up  
18 to the point where we're now replacing heaters in  
19 order to install low NOx or ultra low NOx burners.  
20 Again, it's because the fire box configuration does  
21 not meet the burner requirements and will have to be  
22 significantly modified. There are some heaters that  
23 are short enough where we will have to move tubes  
24 around in order to keep them out of the flame zone.

1 We have some heaters where ultra low NOx burners  
2 just -- They just won't fit at all. We're trying to  
3 figure out what type of control that would require.

4 We do have one heater -- We're evaluating  
5 whether it's a heater or not. We have 192 burners  
6 there and one heater. And that is the one heater  
7 where we're not certain how we would control it  
8 without completely rebuilding the process unit  
9 because the heater is actually part of the process  
10 unit itself.

11 MS. ROCCAFORTE: Is it typical to have 192  
12 burners?

13 MR. DUNN: That is rare. But we have one, and  
14 it's a large one and will require a significant  
15 amount of averaging to average it down.

16 MS. ROCCAFORTE: You recommend a .012 pound per  
17 MMBtu limit for process heaters on page 12 of your  
18 testimony. What control technology would be required  
19 to meet this limit?

20 MR. DUNN: Control technology -- Again, the  
21 control technology could be a variety of things. It  
22 would depend on the type of heater that we would be  
23 installing, whether we can take advantage of the  
24 averaging provisions, et cetera. They could range



1 anywhere from flue gas recirculation to SCR,  
2 including low NOx and ultra low NOx burners, or in  
3 some cases none at all.

4 MS. ROCCA FORTE: Why would you need an SCR to  
5 meet a 0.12 -- Why would you -- Why would an SCR be  
6 required to meet a 0.12 pound per MMBtu limit?

7 MR. DUNN: It wouldn't be required, but it  
8 could -- By installing the SCR, it could enhance our  
9 ability to average.

10 MS. ROCCA FORTE: So it would be the company's  
11 option?

12 MR. DUNN: Correct.

13 MS. ROCCA FORTE: Again, on page 12 you provide  
14 some recommendations regarding the proposed averaging  
15 provisions. Are you willing to continue to work with  
16 the Agency on this issue?

17 MR. DUNN: Yes.

18 MS. ROCCA FORTE: On page 15 of your testimony,  
19 you state that emissions using combustion controls  
20 are generally not subject to significant variation  
21 during normal operations. Can you explain why this  
22 is true?

23 MR. DUNN: Low NOx burners and ultra low NOx  
24 burners are fixed assets. They're not movable.

1 They're not necessarily subject to process changes  
2 themselves. As a result, the emission reductions are  
3 reasonably consistent particularly during normal  
4 operations. As long as the burner's in normal  
5 operating mode and it's properly monitored and  
6 maintained and it's getting the right oxygen and fuel  
7 in the appropriate ranges, then there would only be  
8 small variations in the emission factor itself.

9 MS. ROCCAFORTE: Do you have any information or  
10 data that you can provide to demonstrate this?

11 MR. DUNN: I do not personally. The burner  
12 vendors could probably provide that.

13 MS. ROCCAFORTE: What about with regard to  
14 post-combustion controls?

15 MR. DUNN: Post-combustion controls? What's the  
16 question? Is there a question there?

17 MS. ROCCAFORTE: The statement that you made  
18 that combustion controls are generally not subject to  
19 significant variations during normal operations, is  
20 that true for post-combustion controls also?

21 MR. DUNN: It could be. Post-combustion  
22 controls do require you to monitor certain things,  
23 such as temperature of the SCR beds. During normal  
24 operation you would hope that you wouldn't have to

1 move around much. But, again, you do have the  
2 process control aspect there as opposed to low NOx or  
3 ultra low NOx burners which are fixed assets.

4 MS. ROCCA FORTE: And under what conditions might  
5 emissions vary significantly?

6 MR. DUNN: Generally, it would be during an  
7 abnormal operation or if there's enough set in the  
8 fuel gas system that may cause deposits to form on  
9 the burners themselves. That is for burners only,  
10 not the post-combustion.

11 MS. ROCCA FORTE: And do you routinely monitor  
12 the parameters needed to ensure consistent emission  
13 performance?

14 MR. DUNN: Yes.

15 MS. ROCCA FORTE: I have nothing further.

16 HEARING OFFICER FOX: Are there any other  
17 questions for Mr. Dunn on the basis of his pre-filed  
18 testimony at this time?

19 Seeing none, Mr. Dunn, thank you for your  
20 testimony. It's much appreciated.

21 May we go off the record just for a moment  
22 or so.

23 (WHEREUPON, discussion was had  
24 off the record.)

1           HEARING OFFICER FOX: Having gone off the record  
2 with the participants in this hearing, it was  
3 determined that our wisest course would be to recess  
4 for the day today at approximately 4:30 p.m. and to  
5 reconvene in this room 9-031 at 9:00 a.m., according  
6 to the original notice of hearings, and at that time  
7 begin with questions based on the pre-filed testimony  
8 of Mr. Siebenberger and Mr. Stapper of US Steel and  
9 proceeding with the rest of our agenda. Is there any  
10 procedural questions before we recess for the day?

11           I'm sure I speak for the Board members in  
12 thanking you all for your testimony, your questions,  
13 and your patience. See you in the morning. Thanks.

14                       (WHICH WERE ALL THE PROCEEDINGS HAD  
15                       IN THE FOREGOING CAUSE ON THIS DATE.)

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