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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: )  
 )  
PROPOSED NEW 35 ILL. ADM. )  
CODE 225 CONTROL OF )  
EMISSIONS FROM LARGE ) R06-25  
COMBUSTION SOURCES ) (Rulemaking - Air)  
(MERCURY) )

HEARING DAY SIX

Proceedings held on June 19, 2006, at 9:08 a.m., at the Illinois Pollution Control Board, 1021 North Grand Avenue East, Springfield, Illinois, before Marie E. Tipsord, Hearing Officer.

Reported By: Karen Waugh, CSR, RPR  
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Board Members present:

- Chairman G. Tanner Girard
- Board Member Andrea S. Moore
- Board Member Thomas E. Johnson

Board Staff Members present:

- Anand Rao, Senior Environmental Scientist
- Timothy Fox
- Erin Conley
- Connie Newman
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PROCEEDINGS

(June 19, 2006; 9:08 a.m.)

HEARING OFFICER TIPSORD: Good morning, everyone. Welcome back to Springfield, and for those of you who live here, good morning. My name is Marie Tipsord, and I'm the hearing officer in R06-25. We were in hearing all last week, and so this is day six.

To my right -- or to my left is Dr. Tanner Girard and to my right is Board Member Andrea Moore. They are the presiding board members. To Dr. Girard's far left is Thomas Johnson, one of our board members, and also Anand Rao from our technical unit, and Tim Fox, Andrea Moore's assistant. Erin Conley is here today, as is Connie Newman, and Matt Reed is here with us today also from the Board's staff.

As I said, this is day six. I don't see too many new faces, so I'm not going to go through all the procedural stuff. If you have any questions, don't hesitate to ask at any time. Just let me acknowledge you. And we do have a new court reporter today, so please state your name and who you represent before you ask any questions, and with that, I guess we're ready to go.

Mr. Kim?

1                   MR. KIM: Thank you. As we indicated last  
2 week, Jim Ross of the Illinois EPA will be resuming  
3 testimony, and he will now move and we are going to move  
4 with the quickest dispatch possible to get the Agency  
5 general questions done. We're going to begin with the  
6 general questions that were presented to the Agency by  
7 Dynegy and Midwest Generation.

8                   HEARING OFFICER TIPSORD: Okay. May I  
9 remind you, Mr. Ross, you're still under oath.

10                  MR. ROSS: Yes. And again, these are the  
11 general questions presented to the Agency by Dynegy.

12                  Number 1, "Has the Agency assessed or is it aware  
13 of any assessment regarding what portion of mercury  
14 deposition in the state of Illinois is due to sources  
15 within the state of Illinois?" No, we have not made such  
16 an assessment and are not aware of any such assessment to  
17 determine what portions or amount of deposition in  
18 Illinois is from Illinois sources. We have determined  
19 that coal-fired power plants are large emission sources  
20 of mercury and that some level of this mercury is  
21 deposited in Illinois. 1a.

22                  HEARING OFFICER TIPSORD: Excuse me.  
23 Mr. Bonebrake?

24                  MR. BONEBRAKE: What is the basis for the



1 testimony that you said some portion of these emissions  
2 are deposited in Illinois?

3 MR. ROSS: Well, we conducted some of our  
4 own research. We spoke with experts, read literature,  
5 and you listened to testimony last week from Marcia  
6 Willhite and Dr. Keeler where they went into some details  
7 on this, in some cases excruciating detail. In  
8 particular they cited the Massachusetts and Florida  
9 studies and -- well, that's actually part of question "a"  
10 here. It says, "If so, please describe each assessment  
11 and the related results," and again, we've done our own  
12 research. We spoke with experts and we've reached that  
13 conclusion, and we believe that the Technical Support  
14 Document expresses that to a large degree. It's also in  
15 the prefiled testimony and the testimony to this hearing.  
16 All of them will put forward the weight of evidence that  
17 Illinois sources are in fact contributing to the mercury  
18 deposition in the state.

19 HEARING OFFICER TIPSORD: Ms. Bassi?

20 MS. BASSI: Okay. I'm Kathleen Bassi for  
21 Schiff Hardin, or with Schiff Hardin. Mr. Ross, what was  
22 the nature of the research, please?

23 MR. ROSS: Our staff conducted research.

24 MS. BASSI: Like, what did they do?

1                   MR. ROSS:  They spoke to numerous experts.  
2  They looked at the literature and they looked a lot at  
3  what USEPA had done on this issue.  They spoke with other  
4  states, referred -- looked at other reports such as the  
5  Michigan report that's been cited a number of times.  We  
6  looked at the Florida study, the Massachusetts study,  
7  spoke with STAPPA/ALAPCO representatives, Praveen Amar  
8  from NESCAUM, numerous things.

9                   HEARING OFFICER TIPSORD:  Mr. Bonebrake?

10                  MR. BONEBRAKE:  Would it be fair, then,  
11  Mr. Ross, to characterize your answer to this question to  
12  mean that while the Agency believes that some portion of  
13  the mercury emitted by EGUs in the state comes down in  
14  the state, the Agency really has no idea of the quantity  
15  of the mercury emissions emitted by Illinois EGUs that  
16  comes down in Illinois?

17                  MR. ROSS:  Well, we believe the quantity can  
18  be significant.  There's a likelihood of that, and we  
19  base that on the Florida and Massachusetts studies and  
20  Dr. Keeler's testimony.  Again, we went into that in  
21  detail.  But certainly a portion of what is emitted is  
22  deposited in Illinois.  I mean, I think one critical fact  
23  is that 100 percent of all the mercury that is emitted  
24  from power plants is deposited at some time or another,

1 some place or another. Whether it's in Illinois or  
2 outside Illinois is subject for debate.

3 HEARING OFFICER TIPSORD: Go ahead. I'm  
4 sorry. Mr. Rieser.

5 MR. RIESER: You've described --

6 HEARING OFFICER TIPSORD: Mr. Rieser,  
7 identify yourself for the court reporter.

8 MR. RIESER: Oh. David Rieser, McGuire  
9 Woods, on behalf of Ameren. You described the research  
10 that's been done and the testimony in support as being  
11 the information presented by Ms. Willhite and Dr. Keeler,  
12 the Massachusetts and the Florida studies. Are there  
13 other studies -- and then the Michigan report as well,  
14 all of which have been presented to the Board. Are there  
15 other studies that have not been presented to the Board  
16 on which you've relied?

17 MR. ROSS: I mean, probably the most  
18 appropriate person to answer that -- and she did to some  
19 degree -- was Marcia Willhite. We relied on her a great  
20 deal to conduct this type of research.

21 MR. RIESER: So whatever her testimony was  
22 in this regard, that's the extent of the research that  
23 was done; is that correct?

24 MR. ROSS: Plus what I've said here, yes.

1                   MR. RIESER: Is there anything that's --  
2 that you looked at or to your knowledge that Miss  
3 Willhite looked at that has not been identified and  
4 presented to the Board, any research?

5                   MR. ROSS: Not that I can recall at this  
6 time.

7                   HEARING OFFICER TIPSORD: Mr. Zabel?

8                   MR. ZABEL: Sheldon Zabel. Just to be  
9 clear, Mr. Ross, the Agency did no Illinois-specific  
10 dispersion or deposition analysis; is that correct?

11                   MR. ROSS: I believe Marcia Willhite spoke  
12 that we had started a study but not completed it, but the  
13 answer to your question, though, is yes, we completed no  
14 study.

15                   MR. ZABEL: Thank you.

16                   HEARING OFFICER TIPSORD: That does remind  
17 me that that was one of the things you were supposed to  
18 be checking on, was the map?

19                   MR. KIM: We are still efforting.

20                   HEARING OFFICER TIPSORD: Thank you.

21                   MR. ROSS: Question 2. And mind you,  
22 there's well over 100 questions.

23                   MR. RIESER: One more.

24                   HEARING OFFICER TIPSORD: Excuse me.

1 Mr. Rieser?

2 MR. RIESER: And then when -- you used the  
3 term significant, but it's correct that there's no  
4 quantification on that term.

5 MR. ROSS: There has been no quantification,  
6 but again, Dr. Keeler indicated that as much as 70  
7 percent of the deposition that they measured was traced  
8 back to power plants, and Florida and Massachusetts study  
9 indicated that when you control mercury from local  
10 sources, you do see a reduction in the methylmercury in  
11 fish tissue in different percentages, which Marcia  
12 Willhite and Dr. Keeler both spoke to.

13 HEARING OFFICER TIPSORD: Mr. Bonebrake?

14 MR. BONEBRAKE: Mr. Ross, is it correct that  
15 in the Florida study, the emission reductions were from  
16 incinerators and/or waste combustors and not from EGUs?

17 MR. ROSS: Yes, that's correct. That's been  
18 well established.

19 MR. BONEBRAKE: And isn't it true that  
20 there's a difference in deposition pattern with respect  
21 to mercury emissions from EGUs as opposed to incinerators  
22 and combustors?

23 MR. ROSS: I am not an expert in that area.  
24 I can't speak to that. I believe it is true to some

1 degree, but I certainly couldn't elaborate on it.

2 HEARING OFFICER TIPSORD: Mr. Rieser?

3 MR. RIESER: And it's also true that when  
4 Dr. Keeler talked about 70 percent of the deposition at  
5 Steubenville being from local and regional sources -- and  
6 he spent an inordinate amount of time on this issue -- as  
7 far as I could tell, he was talking about sources within  
8 the eastern United States, correct?

9 MR. ROSS: I agree that we spent a large  
10 amount of time on it. I believe your statement is  
11 correct, yes.

12 MR. RIESER: Thank you.

13 HEARING OFFICER TIPSORD: And if I may  
14 interrupt, I do understand you're wanting to get your  
15 points across, but I really don't think there's much to  
16 be gained by asking this witness what Dr. Keeler or Miss  
17 Willhite said. I think the record speaks for itself, and  
18 I will allow you some latitude, but we really are not  
19 going to revisit their testimony through Mr. Ross today.

20 MR. RIESER: Understood. Thank you.

21 HEARING OFFICER TIPSORD: Thank you.

22 MR. ROSS: Question 2, "Has the Agency  
23 assessed or is it aware of any assessment regarding what  
24 portion, if any, of the mercury present in tissue of fish

1 in the state of Illinois is due to mercury emissions in  
2 the state of Illinois as opposed to in other states or  
3 countries?" And no, we have not made and are not aware  
4 of such an assessment.

5 2a, "If so, please describe all such assessments  
6 and the related results." And I answered in the negative  
7 there too, so it's not applicable.

8 B, "If so, please provide copies of all  
9 documentation of such assessments and results." And as I  
10 mentioned earlier, all the assessments that we have made  
11 are documented in the Technical Support Document,  
12 prefiled testimony and the testimony provided at this  
13 hearing.

14 3, "With the closing of the Northwest and Robbins  
15 incinerators, what was the effect on mercury deposition  
16 in Illinois?" And to the extent that these incinerators  
17 emitted mercury and contributed to deposition, such  
18 deposition was reduced, but we have not attempted to  
19 quantify this amount.

20 HEARING OFFICER TIPSORD: Mr. Zabel?

21 MR. ZABEL: Just to make clear, Mr. Ross,  
22 you haven't made any -- there was no attempt to quantify  
23 what those emissions were, let alone the deposition from  
24 those emissions; is that correct?

1 MR. ROSS: That is correct.

2 HEARING OFFICER TIPSORD: Ms. Bassi?

3 MS. BASSI: Mr. Ross, I don't recall -- and  
4 perhaps you will -- was mercury one of the constituents  
5 for which the Robbins incinerator -- and maybe the  
6 Northwest, but more likely the Robbins incinerator had to  
7 report emissions?

8 MR. ROSS: I don't recall either. Sorry.

9 MS. BASSI: Is that something you could find  
10 out?

11 MR. ROSS: Probably. I mean, I'd have to  
12 speak with staff that were involved in that. I mean,  
13 that was a major issue here in the Bureau of Air, so  
14 there are some staff members that are intimately familiar  
15 with all aspects of the Robbins incinerator and what  
16 occurred, so -- Chris Romaine was one of those staff  
17 members, I'm sure you're aware, and he will be testifying  
18 here, perhaps today if we get to that, and he could  
19 probably speak to that, yeah.

20 MS. BASSI: Thank you.

21 MR. ROSS: 3a, "How did the Agency make its  
22 determination regarding the effect on mercury  
23 deposition?" And this question is regarding the Robbins  
24 incinerator. No determination was made to the best of my



1 knowledge.

2 4, "What is the operating status of the medical  
3 waste incinerator in or slightly east of Clinton,  
4 Illinois?" And this source is operating.

5 Questions 5 through 8, Marcia Willhite and Tom  
6 Hornshaw I believe had almost identical questions to --

7 HEARING OFFICER TIPSORD: Excuse me.

8 Mr. Ross, Ms. Bassi has a follow-up.

9 MS. BASSI: In number 4 --

10 MR. ROSS: 4, yeah.

11 MS. BASSI: -- the Clinton's medical waste  
12 incinerator, do you know if mercury is one of the  
13 constituents they monitor for?

14 MR. ROSS: I do not know the answer to that.

15 MS. BASSI: Is that something Mr. Romaine  
16 would know?

17 MR. ROSS: In all likelihood, yes.

18 MS. BASSI: Okay. And I'm sorry. What did  
19 you answer for 4a?

20 MR. ROSS: The source is operating.

21 MS. BASSI: No, "a" talks about monitoring.

22 HEARING OFFICER TIPSORD: 4a and b  
23 specifically asks about ambient operating.

24 MS. BASSI: Ambient monitoring.

1 MR. ROSS: Okay. 4a, "Is the Agency  
2 monitoring ambient mercury in the vicinity of that  
3 incinerator?" No, we are not.

4 B, "What are the results of the monitoring?"  
5 There are none.

6 HEARING OFFICER TIPSORD: Go ahead.

7 MS. BASSI: Madam Hearing Officer, Mr. Ross  
8 has mentioned for questions 3 and 4 that Mr. Romaine  
9 would be the appropriate person to ask these questions  
10 of, and so can we come back to that when he appears?

11 HEARING OFFICER TIPSORD: Absolutely.

12 MS. BASSI: Thank you.

13 HEARING OFFICER TIPSORD: And questions 5  
14 through 8 were answered by Miss Willhite, so we move on  
15 to question number 9.

16 MR. ROSS: Okay. Question 9, "On page 107  
17 of the TSD" -- which is an acronym for Technical Support  
18 Document -- "Table 7.1 omits Wood River and two of the  
19 Will County units. Why were these units omitted?" This  
20 actually appears to be a software error. When we pull  
21 the document up on the computer, those units are  
22 included. Apparently, when you print the unit out, they  
23 do not show up, so we are working to resolve that, but  
24 that in fact was an omission that we are working to

1 correct. Partial omission I guess would best describe  
2 it.

3 Question 10, "How does the size of the ESP at  
4 Yates, discussed on page 134 of the Technical Support  
5 Document, compare to EPSs in Illinois?" And I believe  
6 this question is best answered by Dr. Staudt.

7 HEARING OFFICER TIPSORD: Before you go on,  
8 Mr. Ross, could you -- for the court reporter, what is  
9 ESP?

10 MR. ROSS: It's an electrostatic  
11 precipitator. It's a particulate matter control device  
12 utilized by EGUs or by coal-fired power plants in their  
13 units. EGUs is electric generating units.

14 HEARING OFFICER TIPSORD: Thank you.

15 MR. ROSS: Question 11, "Has Sorbent  
16 Technologies tested its products in operations in  
17 different seasons and different climates and for long  
18 periods of time equating to permanent use?" And I  
19 believe this question is best answered by Sid Nelson, who  
20 will be here testifying. He is the CEO/president of  
21 Sorbent Technologies.

22 Question 12, "Does the Agency assume only the  
23 installation of ACI in its cost estimates of the control  
24 options available on page 147 of the Technical Support

1 Document?" And the answer to this is no. We will be  
2 going over this in detail in the coming days when  
3 Dr. Staudt will be here, and that's the -- probably the  
4 most appropriate time to answer this question. Again,  
5 we'll be going over the controls and costs in detail.  
6 And I won't be skipping over all of these questions and  
7 deferring them to later, but we just ran into a batch of  
8 them.

9 HEARING OFFICER TIPSORD: ACI, court  
10 reporter?

11 MR. ROSS: Activated carbon injection.

12 HEARING OFFICER TIPSORD: Thank you.

13 MR. ROSS: "On page 157 of the TSD, the  
14 Agency states that allowances purchased under CAMR from  
15 out-of-state sources that have excess allowances would  
16 have a -- quote, have a cost reflecting at least the cost  
17 of implementing control technology, unquote. What is the  
18 basis of this statement?" Again, that statement is in  
19 the portion of the Technical Support Document written by  
20 Dr. Staudt, I believe. It's his statement. He is the  
21 most appropriate person to answer that.

22 Question b, "Is the generally held theories  
23 relative to emissions trading the following, that sources  
24 would not buy allowances for purposes of compliance

1 unless either, 1, they had an unforeseen event occur  
2 requiring additional allowances, or 2, the cost of  
3 allowances is cheaper than the cost of controlling?" And  
4 again, all of this is related to question 13, so -- and  
5 we will be discussing that in the -- when we go over the  
6 cost of controls.

7 HEARING OFFICER TIPSORD: Mr. Ross, it might  
8 be easier, for those questions that you are going to  
9 defer to someone else, there's no need to read them into  
10 the record at this time.

11 MR. ROSS: To skip them? Okay. Thank you.  
12 Question 14, "Which are the must-run and black start  
13 units?" And the Agency intentionally did not identify  
14 these units due to homeland security issues. The  
15 Regional Transmission Organization representatives that  
16 we consulted with suggested that we not disclose these  
17 facilities any more than what we have done so in the  
18 Technical Support Document where we discuss them. We  
19 agree that disclosing these facilities could pose a  
20 homeland security risk, as disruption of operations of  
21 any of these units jeopardizes the electricity grid.

22 Question 15 --

23 MR. KIM: I'm sorry. Before you go on,  
24 before we get too far down the road, question -- gosh --

1 question number 9 asked about a table, and as Mr. Ross  
2 indicated, we had some computer problems, but I have a  
3 complete copy of the table, so let me hand that out now  
4 before we get too far away from it.

5 HEARING OFFICER TIPSORD: And for purposes  
6 of the record, that table in question number 9 is the one  
7 on page 107 of the Technical Support Document, Table 7.1.  
8 We will mark this as Exhibit 34 if there's no objection.  
9 Okay. On -- Let me double-check the record. I think I  
10 may have my exhibit numbers off.

11 MS. BASSI: 35.

12 HEARING OFFICER TIPSORD: I in fact have my  
13 exhibit numbers off. Thank you very much. It's Exhibit  
14 No. 35 if there's no objection. Seeing none, this will  
15 be Exhibit No. 35.

16 MR. KIM: Sorry for the disruption.

17 HEARING OFFICER TIPSORD: That's okay. Go  
18 ahead, Mr. Ross.

19 MR. ROSS: Question 15, "How does the Agency  
20 compare or offset the economic impacts of the closure of  
21 some plants to the claimed gains from the installation  
22 and operation of new equipment?" The Agency makes no  
23 attempt to compare or offset the economic impacts of any  
24 plant closures with potential gains from other areas. We

1 have simply identified areas that could be potentially  
2 impacted by the rule. We have added flexibility in the  
3 rule wherever reasonable in order to minimize the  
4 potential for any plant closures. It is not our intent  
5 that the rule result in any plant closures and we do not  
6 feel that it necessarily will.

7 15a, "Wouldn't installation of control equipment  
8 be only temporary employment at a given plant?" Yes, the  
9 installation of control equipment would be only temporary  
10 employment. However, service and maintenance would more  
11 than likely be ongoing activities.

12 HEARING OFFICER TIPSORD: Mr. Zabel?

13 MR. ZABEL: Can you quantify what the extent  
14 of additional maintenance costs and operational costs  
15 would be?

16 MR. ROSS: I believe that's discussed in  
17 some detail in Section 8 of the Technical Support  
18 Document. It's included in the cost calculations. It's  
19 not something I can readily pull off the top of my head  
20 and speak to, but I'm sure Dr. Staudt will be speaking to  
21 that and be able to answer those questions. That was  
22 part of his cost assessment.

23 MR. ZABEL: Would that also be true,  
24 Mr. Ross, for any impact that operation and maintenance

1 will have on additional employment?

2 MR. ROSS: No. That was something that we  
3 identified as a potential benefit. We made no attempt to  
4 assess the level of that benefit. We simply thought it  
5 was appropriate to identify it as a potential benefit,  
6 and we will have someone from the Institute of Clean Air  
7 Companies who are vendors for pollution control equipment  
8 that will be able to speak to that issue in some detail.  
9 He will be here testifying later in the week, and he can  
10 speak to the benefits of regulatory requirements and  
11 employment and how pollution control installation  
12 requirements can benefit employment in a state where such  
13 requirements are made.

14 MR. ZABEL: Will he speak specifically to  
15 the employment benefits, if any, of the proposed rule?

16 MR. ROSS: No, he will not. He will speak  
17 most likely in general terms. I don't believe he will.

18 MR. ZABEL: Is there anyone --

19 MR. ROSS: We have not asked him to look at  
20 that.

21 MR. ZABEL: Is there anyone for the Agency  
22 who can speak to that question?

23 MR. ROSS: Not to my knowledge.

24 MR. ZABEL: Thank you.



1 HEARING OFFICER TIPSORD: Mr. Rieser, you  
2 have a follow-up?

3 MR. RIESER: Yeah, just briefly. Is there  
4 anyone from the Agency who's going to testify to the  
5 methodology and mechanics of the daily coal sampling  
6 which the rules require?

7 MR. ROSS: That's actually in the questions  
8 that I will be getting to today.

9 MR. RIESER: Okay. Sorry to jump ahead.

10 HEARING OFFICER TIPSORD: Just want to move  
11 along quicker, don't you?

12 MR. ROSS: It's, like -- I think it's  
13 question 80 something.

14 Question 16, "Section 225.265 of the proposed  
15 rule requires that daily coal sampling commence 30 days  
16 in advance of when the activity is actually necessary to  
17 determine coal mercury content for purposes of  
18 compliance. A, what is the ASTM requirement to provide  
19 representative daily samples?" This was a technical  
20 question, and I apologize in advance for the technical  
21 answer. ASTM D6414-01 and D3684-01, the methodologies  
22 that can be used under the proposed rule to determine  
23 mercury content of coal discuss an analytical methodology  
24 but defer to D2013-04, the standard practice for

1 preparing coal samples for analysis, period. D2013-04 in  
2 turn refers to D2234/D2234M-03, the standard practice for  
3 collection of gross sample of coal. This provides a  
4 minimum weight of two pounds for the sample.

5 B, "Is it the Agency's belief that one two-pound  
6 grab sample per day will be sufficient to demonstrate  
7 compliance?" Yes. However, the rule indicates that this  
8 is a minimum requirement. Sources may collect additional  
9 samples if they so choose.

10 HEARING OFFICER TIPSORD: Mr. Zabel?

11 MR. ZABEL: Mr. Ross, are you familiar with  
12 a construction permit that was issued for the Dynegy  
13 Vermilion station on May 20, 2006?

14 MR. ROSS: No, I am not.

15 MR. ZABEL: Would you be an appropriate  
16 person to question concerning that permit?

17 MR. ROSS: Probably a more appropriate  
18 person would be Chris Romaine, who will be here. He is  
19 the manager of the utilities unit and the construction  
20 permit unit, so he is probably intimately familiar with  
21 that permit.

22 MR. ZABEL: But for the record, the permit's  
23 for the installation of a baghouse and sorbent injection  
24 and requires ASTM sampling, and my point of my question

1 will be why isn't that in the rule and it's in this  
2 permit? I'm happily -- I'll happily defer it to  
3 Mr. Romaine.

4 HEARING OFFICER TIPSORD: And if I --

5 MR. ROSS: That may in fact be the  
6 appropriate thing to do. However, we did work with the  
7 utilities in the stakeholder meetings to arrive at the  
8 method of coal sampling that we have now in the rule, so  
9 this was discussed in some level of detail in the  
10 stakeholder meetings. We received a lot of comments on  
11 that. We responded to those comments in the meetings and  
12 we had believed that this was the agreeable method and  
13 that utilities were in fact somewhat in favor of the way  
14 we had chosen. And I do also want to note that I believe  
15 what we're requiring to be measured, which is mercury  
16 input, is somewhat of a new concept to some degree. I'm  
17 not sure if it was addressed in the Vermilion plant  
18 before, but certainly we've addressed it at this stage  
19 more than we have in the past. There's certainly more  
20 people involved in this rulemaking than were involved in  
21 a single construction permit.

22 MR. ZABEL: Let me ask you this question,  
23 Mr. Ross, and I'll save the permit specifically for  
24 Mr. Romaine. Would ASTM sampling be more expensive to

1 implement than one two-pound grab sample per day?

2 MR. ROSS: I can't speak to that, but  
3 reasonably, I would think, yes.

4 MR. ZABEL: It would require more  
5 sophisticated sampling equipment, would it not?

6 MR. ROSS: Right.

7 MR. ZABEL: And that would have a cost,  
8 would it not?

9 MR. ROSS: Yes, it would.

10 MR. ZABEL: To your knowledge, were those  
11 kinds of costs included in the Agency's economic  
12 analysis?

13 MR. ROSS: To some degree. I know I -- the  
14 questions do get around to cost here maybe shortly,  
15 and --

16 MR. ZABEL: I'm happy to wait.

17 MR. ROSS: -- and hopefully I hit on that.  
18 Okay.

19 HEARING OFFICER TIPSORD: And just before we  
20 proceed too far, I -- just for purposes of the record --  
21 and, Mr. Zabel, I know you're fully aware of this -- but  
22 I do want to caution you about asking about a permit that  
23 may potentially be in front of the Board on a permit  
24 appeal of some type.

1 MR. ZABEL: It's a final issue permit. I --

2 HEARING OFFICER TIPSORD: Right, but --

3 MR. ZABEL: -- have no choice, Madam Hearing  
4 Officer. I realize this may well be before the Board.  
5 You're quite right.

6 HEARING OFFICER TIPSORD: And I just caution  
7 you that if you question -- I just caution you that if  
8 it's an active case that comes before the Board, you  
9 know, there could be issues about the board members'  
10 ability to rule on something that's discussed at this  
11 rulemaking proceeding, so just as a caution.

12 Mr. Harrington, you had a follow-up?

13 MR. HARRINGTON: Mr. Ross, do you consider  
14 yourself an expert on the sampling of input of coal to  
15 EGUs?

16 MR. ROSS: No, I do not.

17 MR. HARRINGTON: Is there an expert at the  
18 Agency on sampling of input of coal to EGUs?

19 MR. ROSS: We have staff members that have  
20 researched this and spoken with experts, so it depends on  
21 how you would qualify someone as an expert, but we  
22 certainly have people that have looked at this issue in a  
23 great deal of detail.

24 MR. HARRINGTON: Will any of them be

1     testifying here?

2                     MR. ROSS:  No.

3                     MR. HARRINGTON:  Are you an expert on the  
4     variability of coal from different sources and what a  
5     statistically accurate sampling of that coal would be to  
6     determine mercury content?

7                     MR. ROSS:  No, but we have spoken with such  
8     experts.  I believe we identified one of them earlier,  
9     Massoud Rostam-Abadi.

10                    MR. HARRINGTON:  Excuse me?

11                    MR. ROSS:  Massoud Rostam-Abadi.  He's with  
12     the University of Illinois.  Illinois State Geological  
13     Survey, I believe, is who he's with, and we've mentioned  
14     him before, and we've consulted him on numerous occasions  
15     regarding the properties of coal not only in Illinois but  
16     all types of coal that Illinois EGU units burn, and he is  
17     an expert on coal variability and coal properties.

18                    MR. HARRINGTON:  Was that taken into account  
19     in setting forth the sampling and analysis methods for  
20     input coal?

21                    MR. ROSS:  I believe so, yes.  We discussed  
22     this with him and with -- as I also mentioned, we  
23     discussed it with the power plants at the stakeholders'  
24     meetings and received a lot of comments, and this was

1 something that we worked with the power plants on.

2 MR. HARRINGTON: Did he or anyone else  
3 suggest to you that the method in the rule is a  
4 statistically valid method for sampling and analyzing  
5 mercury content of coal?

6 MR. ROSS: I can't speak to that directly.  
7 I wasn't involved in all the conversations and  
8 discussions. It was a lot of our staff members who we  
9 assigned to work specifically on this issue, but I would  
10 hope that was part of their conversations.

11 MR. HARRINGTON: Will any of them be  
12 testifying here?

13 MR. ROSS: Chris Romaine was a part of some  
14 of these discussions, so he may be able to shed some  
15 light on that.

16 MR. HARRINGTON: Thank you. That's all for  
17 now.

18 MR. ROSS: Question c, "Why is it necessary  
19 to commence daily coal sampling a month before the  
20 program begins?" This lead time was selected to ensure  
21 that any difficulties with the practices for collection  
22 of this data can be identified and corrected before the  
23 data is needed for the purposes of compliance.

24 D, "What equipment would be necessary to conduct

1 this sampling?" According to ASTM D2234/D2234M-03,  
2 quote, "Variations in coal handling facilities make it  
3 impossible to publish rigid rules covering every sampling  
4 situation in complete and exact detail," unquote.  
5 However, the Agency believes that a shovel and a bucket  
6 or a wheelbarrow will suffice.

7 HEARING OFFICER TIPSORD: Mr. Zabel?

8 MR. ZABEL: Is that for the two pounds a  
9 day?

10 MR. ROSS: Yes.

11 MR. ZABEL: What about for ASTM sampling?

12 MR. KIM: I believe he just answered that in  
13 a quote from the ASTM.

14 MR. ZABEL: No, he answered what the ASTM  
15 said, Mr. Kim. I'm asking what the Agency's knowledge of  
16 it is, if any.

17 MR. KIM: No, you said what is the ASTM's,  
18 and he just read you what --

19 MR. ZABEL: I'll rephrase the question.  
20 What has -- Has the Agency investigated the cost for  
21 Illinois power plants to do ASTM coal sampling?

22 MR. ROSS: I'm certain that was discussed,  
23 and I believe it was discussed. Although we don't have  
24 records of the stakeholder meetings, that did come up at



1 one of the stakeholder meetings and was discussed in a  
2 public forum, the cost associated with that, to some  
3 detail. I can't recall the specific discussions, but I  
4 know we did look at that and take that into  
5 consideration.

6 MR. ZABEL: Would it be more than a bucket  
7 and a shovel?

8 MR. ROSS: I would think so. I'm not  
9 certain. I can't answer that.

10 MR. ZABEL: Does the -- Did the Agency do  
11 any investigation of how many power plants in the state  
12 of Illinois, coal-fired, currently can or are capable of  
13 conducting ASTM sampling?

14 MR. ROSS: That was discussed also, and I  
15 believe we had some comments received on that, so it was  
16 discussed. We looked into it.

17 MR. ZABEL: What was the result of that  
18 look?

19 MR. ROSS: That some do have those  
20 capabilities on site and some do not.

21 MR. ZABEL: You don't know which -- how many  
22 or any quantification?

23 MR. ROSS: Not that I can recall.

24 MR. KIM: I believe he just answered e.

1 HEARING OFFICER TIPSORD: What is the cost  
2 of this equipment? Move on to f.

3 MR. ROSS: F, "How many EGUs currently have  
4 this in place?" And it's uncertain. We don't have the  
5 exact number.

6 17, "Section 225.295 of the proposed rule states  
7 that the Agency will retain the mercury allowances and  
8 will instruct USEPA to permanently retire them. A, how  
9 does the Illinois EPA expect to demonstrate compliance  
10 with the emissions cap applicable to Illinois in the  
11 CAMR?" Well, we discussed at least one approach in some  
12 detail in the Technical Support Document. One point I  
13 would like to make is that Phase I of the CAMR, which is  
14 applicable until 2018, only requires a cap of 3,180  
15 pounds per year. Our mercury reduction level will we  
16 believe take Illinois' mercury emissions below 1,000  
17 pounds per year, so we will be well below the USEPA cap,  
18 but we are in ongoing discussions with USEPA and we've  
19 presented several different options. One of the options  
20 is explained in the TSD where we do a projection ten  
21 years forward of what mercury emission levels in Illinois  
22 will be as a result of Illinois' rule. They show that  
23 again they will be far below the CAMR caps and that there  
24 should not be significant I guess estimation or any way

1 that Illinois could potentially exceed the CAMR caps, and  
2 we believe USEPA agrees with this point, but coming up  
3 with a resolution on that may take some time.

4 B, "If the State does not comply with the cap,  
5 what happens? How will USEPA enforce the cap?" Again,  
6 we believe that the Illinois rule will meet USEPA caps  
7 for many years into the future, and the USEPA has not  
8 specified the implications to Illinois of not complying  
9 with the caps, so that may be a question best put to  
10 them.

11 HEARING OFFICER TIPSORD: Ms. Bassi?

12 MS. BASSI: I'm sorry. Would you repeat  
13 what you -- the last part that you said after "but"?

14 MR. KIM: Concerning what USEPA would do?

15 MS. BASSI: Yeah.

16 MR. ROSS: To the best of my knowledge, they  
17 have not specified what the implications would be to  
18 Illinois of not meeting the CAMR caps, but in our  
19 discussions with them, I think we're at some level of  
20 agreement that our rule is more stringent in that we will  
21 be able to meet the CAMR caps. Now it's just arriving at  
22 how we would demonstrate that to them in coming up with  
23 some formal agreement.

24 HEARING OFFICER TIPSORD: Mr. Bonebrake?

1                   MR. BONEBRAKE: Mr. Ross, you mentioned -- I  
2 think you said that the TSD discussed the fact that the  
3 Illinois rule would result in annual emissions of less  
4 than 1,000 pounds?

5                   MR. ROSS: Correct.

6                   MR. BONEBRAKE: And the TSD was submitted  
7 prior to the date that the TTBS was proposed as an  
8 amendment to the rule. My question for you is has the  
9 Agency revisited the expected annual -- the pounds per  
10 year of mercury in light of the TTBS?

11                  MR. ROSS: Yes, we looked at that. What we  
12 looked at was the incremental increase in emissions that  
13 could occur as a result of some level. Say the TTBS  
14 allows 25 percent of the generating capacity of a company  
15 to utilize it, so you look at the potential incremental  
16 increase in mercury emissions that could occur as a  
17 result of that level of capacity utilizing the TTBS, and  
18 we would assume that most of the units that utilize it  
19 will -- you know, they're required to get 90 percent.  
20 Obviously, if you're going to utilize the TTBS, you're  
21 not getting 90 percent, so we would assume they would get  
22 somewhere in the neighborhood of 80 percent or above, and  
23 that incremental increase is very, very small. I think  
24 we estimated a maximum potential somewhere of an

1 additional 250 pounds of mercury emissions, and we do not  
2 expect 25 percent of a company's capacity to utilize the  
3 TTBS, so that's a top end estimate.

4 HEARING OFFICER TIPSORD: Mr. Bonebrake?

5 MR. BONEBRAKE: What was the basis for the  
6 80 percent number you just referenced?

7 MR. ROSS: That would be the level -- kind  
8 of a bottom level that units would -- units who put on  
9 controls to try and meet the 90 percent level, they're  
10 obviously -- if they're going to enter the TTBS, they're  
11 not going to meet 90 percent, so you try and estimate  
12 what level will they meet, and we believe at a minimum  
13 they should be able to get 80 percent, and the basis of  
14 that I believe is described in some detail in Section 8  
15 of the TSD where we talk about the levels of mercury  
16 control that different control strategies will achieve.

17 HEARING OFFICER TIPSORD: Ms. Bassi?

18 MS. BASSI: Mr. Ross, did you say you did  
19 not expect the TTBS to be utilized to a great extent or  
20 to the full extent that it's available?

21 MR. ROSS: Yes, I did say that.

22 MS. BASSI: Why is that?

23 MR. ROSS: Well, it allows 25 percent of the  
24 generating capacity, but of course you would have to have

1 exact numbers to use 25 percent; that is, any one  
2 company, Ameren -- you know, the big three, Dynegy,  
3 Ameren or Midwest Generation, they would have to -- you  
4 know, if they have twenty units and five of them are  
5 going to use it, there's not a likelihood that those five  
6 units that are going to use it add up to exactly 25  
7 percent of that company's generating capacity, so even at  
8 full use of the TTBS, those five units would add up to,  
9 say, only 20 percent or 18 percent of that company's  
10 generating capacity, so there you -- you know, you would  
11 have 5 to 7 percent of unused portion of that 25 percent  
12 allowed by the TTBS. And we have many questions -- we're  
13 getting into the TTBS here, and we have a lot of  
14 questions that address that. They aren't in these  
15 questions here today. We are prepared to answer those  
16 questions, but that will be a lengthy discussion, I  
17 believe, that may be more appropriate after -- and this  
18 is my own opinion -- may be more appropriate after we  
19 talk about cost and controls, because a lot of that is  
20 intertwined.

21 MS. BASSI: Can I ask two quick questions?

22 HEARING OFFICER TIPSORD: Absolutely.

23 MS. BASSI: You said that the -- that for  
24 the big three, as you described them, that that might

1 actually utilize only around 18 percent. I know it  
2 was --

3 MR. ROSS: That was a rough estimate.

4 MS. BASSI: -- just a guess. Just a guess.  
5 But it raises an interesting question, which is, are they  
6 having -- are the big three having to lowball the amount  
7 of -- if you will, the amount of capacity that is  
8 possibly beneficially used in the TTBS because of the 25  
9 percent cap that you've put onto the -- you -- by you I  
10 mean the Agency -- has put onto the TTBS; in other words,  
11 they may have had more capacity they would like to have  
12 put into the TTBS but cannot go to 26 percent?

13 MR. ROSS: That's certainly possible, yes.

14 MS. BASSI: Okay. And my second question  
15 is, what about the remaining four companies?

16 MR. ROSS: They're allowed, just like they  
17 are in averaging calculations, to combine their capacity,  
18 and then 25 percent of that capacity is allowed in the  
19 TTBS, so --

20 MS. BASSI: That could --

21 MR. ROSS: They are allowed to use it, yes.

22 MS. BASSI: That could pose some interesting  
23 negotiations.

24 MR. ROSS: Yes, it could.

1 HEARING OFFICER TIPSORD: Mr. Bonebrake?

2 MR. BONEBRAKE: Sounds like we're going to  
3 have some more discussion about the details of the TTBS  
4 later on, so I'm not going to ask any more questions  
5 about that, but one related follow-up question to  
6 discussions with USEPA that you referenced already. In  
7 any discussions between IEPA and USEPA to this point in  
8 time concerning the cap, has TTBS and its ramifications,  
9 if any, on the CAMR cap been discussed with USEPA?

10 MR. ROSS: They're certainly aware that we  
11 were thinking about adding a TTBS into the rule. As far  
12 as the level of detail our discussions with them have  
13 included the ramifications, I'm not certain, but they are  
14 aware that a TTBS was being contemplated, and I think at  
15 this time they're aware that we amended the rule to  
16 include it.

17 MR. BONEBRAKE: So at this point in time,  
18 you don't have a -- do you have a view as to whether  
19 USEPA had a favorable or negative reaction to inclusion  
20 of the TTBS?

21 MR. ROSS: I don't know.

22 HEARING OFFICER TIPSORD: Mr. Harrington?

23 MR. HARRINGTON: This is dropping back to an  
24 earlier answer, if I may. You mentioned that the notion



1 of sampling coal to determine mercury consent on an  
2 ongoing basis is novel? Is that a correct  
3 characterization of your testimony?

4 MR. ROSS: I think what we're targeting in  
5 the rule is input mercury.

6 MR. HARRINGTON: Yeah.

7 MR. ROSS: I'm pretty certain that's a new  
8 term somewhat, so it's somewhat novel.

9 MR. HARRINGTON: Not only is the term new,  
10 but the concept of basing the regulation on input mercury  
11 is new, is it not?

12 MR. ROSS: Somewhat is the answer to that.  
13 I know other agencies are -- have indicated they are  
14 going to do something similar. I believe STAPPA/ALAPCO's  
15 rule is doing -- their proposed model rule for mercury  
16 control is doing something similar, so the concept is out  
17 there in other states and other areas.

18 MR. HARRINGTON: Am I correct that the  
19 Agency is unaware of any history anywhere where input  
20 mercury has been consistently tested over any period of  
21 time in a manner in any way consistent with your proposed  
22 rule?

23 MR. ROSS: I am certainly unaware of any  
24 such cases.

1                   MR. HARRINGTON: So we are not aware, any of  
2 us, based on the history as to the relative accuracy,  
3 precision and consistency of this type of sampling, are  
4 we, based on empirical data?

5                   MR. ROSS: This specific type of sampling, I  
6 think the way you framed it, it is correct. However,  
7 what I've been told and my thoughts tell me are it's  
8 novel to a point. It's not that mercury content of coal  
9 hasn't been measured and that there's not accepted  
10 methods out there for that.

11                   MR. HARRINGTON: The methods that have been  
12 approved to take -- once you have a sample in your hand,  
13 you can analyze the coal to a certain level and have  
14 reasonable reliability in that single sampling analytical  
15 event; is that correct?

16                   MR. ROSS: Yes.

17                   MR. HARRINGTON: But there is no  
18 demonstrated consistent method for taking the samples,  
19 preparing the samples and obtaining data over a long  
20 period of time to determine mercury content in coal; is  
21 that correct?

22                   MR. ROSS: I'm uncertain.

23                   MR. HARRINGTON: Thank you.

24                   HEARING OFFICER TIPSORD: I believe we're on

1 17c.

2 MR. HARRINGTON: Maybe just one more  
3 slightly different question, but it may wrap up some  
4 other questions and we can avoid as we go forward putting  
5 some of ours. Listening to your testimony, is it correct  
6 that neither you nor your other Agency witnesses here,  
7 meaning Agency employee witnesses, are representing  
8 yourselves to be experts in the removal technology for  
9 mercury in flue gas but that you are relying on  
10 Dr. Staudt and others who will also be present for those  
11 conclusions?

12 MR. ROSS: I think that specific question is  
13 asked later. I can address it then.

14 MR. HARRINGTON: Just thought it might  
15 cut -- I know it's a pass, but I also know -- thought it  
16 might cut off some question later on so we can speed up  
17 the process, but we can get to it later. That's fine.  
18 Thank you.

19 MR. ROSS: C, "How can Illinois EPA assure  
20 that USEPA will not take the global approach it takes in  
21 other areas," example given, "assuming noncompliance for  
22 the entire ozone season if an EGU does not hold  
23 sufficient allowances at the end of the season under NOx  
24 SIP call? That is, how can Illinois EPA assure the

1 regulated community that USEPA will not pursue  
2 enforcement against each of the affected EGUs if the  
3 State does not comply with the emissions cap?" We will  
4 do all we can to ensure this doesn't occur. We cannot  
5 guarantee it. We believe the chance is remote and we are  
6 working on all these issues with USEPA.

7 HEARING OFFICER TIPSORD: Mr. Zabel?

8 MR. ZABEL: Mr. Ross, this problem of the  
9 interface with USEPA, would it largely disappear if the  
10 proposal of the Agency were a state law only rule and  
11 CAMR were applied in Illinois?

12 MR. ROSS: There is that possibility. If  
13 CAMR applied in Illinois, certainly USEPA would be  
14 extremely happy and that would answer all those  
15 questions, yes.

16 MR. ZABEL: It's not been my goal in life 40  
17 years to make USEPA happy, Mr. Ross, just so the record's  
18 clear on that subject. Thank you.

19 MR. ROSS: 18, "Please provide examples of  
20 the calculations for Section 225.230(d)." And Chris  
21 Romaine will be answering this question. 19 also Chris  
22 Romaine will be answering.

23 HEARING OFFICER TIPSORD: Ms. Bassi?

24 MS. BASSI: I'm sorry. I have to go back to

1 17 one more time. If -- I believe you stated that there  
2 were ongoing discussions with USEPA and that it sounds to  
3 me like you have convinced some of USEPA's staff that  
4 you're -- that Illinois' proposal will protect the cap  
5 that USEPA has required and that you're working through  
6 the approval process that has to occur by USEPA. Will  
7 this approval process take a longer period of time  
8 because Illinois EPA is not proposing or at least at this  
9 point planning to submit the CAMR as its federally  
10 enforceable rule?

11 MR. ROSS: You know, that's hard to say.  
12 You're asking me to speculate, but I would think so, yes.  
13 I mean, obviously if we adopted CAMR or some form of  
14 CAMR, USEPA I think would be happy and readily approve  
15 that approach.

16 MS. BASSI: If Illinois EPA -- strike that.  
17 Thank you.

18 HEARING OFFICER TIPSORD: Mr. Forcade?

19 MR. FORCADE: Yes. Bill Forcade, Jenner &  
20 Block, representing Kincaid Generation, LLC. Mr. Ross,  
21 your response to question 17a about Illinois EPA  
22 demonstrating compliance, was that premised on the  
23 regulatory language prior to the adoption of the  
24 amendment that was approved for review last Thursday at

1 the board meeting?

2 MR. ROSS: Yes, it was.

3 MR. FORCADE: All right. How will you  
4 demonstrate compliance with the emission cap with the  
5 TTBS exemption in place if a large number of facilities  
6 apply for such an exemption?

7 MR. ROSS: As I previously discussed, we  
8 will be able to show them that if a large number of units  
9 enter the -- you know, only 25 -- it's only allowed for  
10 25 percent of the generating capacity of a company, so we  
11 will show that the maximum potential increase in  
12 emissions that would result if a large number of units  
13 entered the TTBS would be small enough where Illinois'  
14 emissions would still be below the cap, well below. In  
15 particular, again, USEPA's CAMR, the cap for Phase I all  
16 the way out to 2018 is greater than 3,000 pounds per  
17 year. Under our rule, we believe by mid 2009 Illinois'  
18 emissions will be below 1,000 pounds per year, so we  
19 don't think that that's too difficult to demonstrate to  
20 USEPA.

21 HEARING OFFICER TIPSORD: Are we ready to  
22 move on, then? Are we going to Ameren or Kincaid?

23 MR. ROSS: Kincaid.

24 MR. KIM: Kincaid.

1                   MS. BASSI: Did we answer 19 or is that --  
2 that's Romaine?

3                   MR. KIM: Yes.

4                   MS. BASSI: Sorry.

5                   MR. ROSS: Okay. Again, these are Kincaid  
6 Generation questions for the Agency. This is question 1.  
7 "Please provide the names of each person that  
8 participated in the preparation of Chapter 8 of the TSD."  
9 And we did this to some degree on day one, but in  
10 general, the Agency's TSD was a collaborative effort  
11 between numerous Agency personnel and several experts  
12 retained by the Agency to assist with the proposed  
13 mercury rule. Chapter 8 of the TSD was primarily  
14 prepared by the Agency-retained expert on mercury cost  
15 and control, Dr. James Staudt. However, several Agency  
16 personnel reviewed and provided comments to Dr. Staudt,  
17 including myself, Chris Romaine, Blaine Kinsley and  
18 Bureau of Air chief Laurel Kroack.

19                   HEARING OFFICER TIPSORD: You didn't get all  
20 of that?

21                   MR. FORCADE: I'm sorry. I didn't hear the  
22 names.

23                   MR. ROSS: Okay.

24                   MR. FORCADE: I got Dr. Staudt and then I

1 did not hear the rest.

2 MR. ROSS: Myself, Jim Ross; Chris Romaine;  
3 Blaine Kinsley and Laurel -- Kinsley, K-I-N-S-L-E-Y, and  
4 Laurel Kroack, K-R-O-A-C-K.

5 Question 2, "For each of the people provided in  
6 answer to question 1, explain the specific role that each  
7 played in the preparation of Chapter 8 and identify the  
8 specific sections which they participated in drafting."  
9 And I believe I answered that when I answered question 1,  
10 that Section 8 was primarily Dr. Staudt's efforts and we  
11 simply provided comments and suggestions to Dr. Staudt.

12 MR. FORCADE: Could you identify what  
13 specific areas the comments were from each of the  
14 individuals identified in your previous answer?

15 MR. ROSS: No, I can't. That section went  
16 through numerous iterations, I would estimate 30  
17 iterations where it was marked up in red and revised and  
18 re-revised and re-revised, and so, no, that would be  
19 extremely difficult. We did not keep track of who made  
20 comments where. It was circulated for comments. I'm  
21 sure Dr. Staudt incorporated some of the comments and  
22 chose not to incorporate others, and when we got the  
23 final version, I think we may have made some tweaks also  
24 to it before it went into the Technical Support Document,



1 so I have made no effort to do that and that would be  
2 extremely difficult.

3 MR. FORCADE: Can you identify the topical  
4 areas that each of those individuals would have provided  
5 comments on?

6 MR. ROSS: Well, Section 8 in general is  
7 cost and controls. I would say that each of these  
8 individuals with the exception of Blaine Kinsley provided  
9 comments on each and every section and topic in Section  
10 8. Blaine Kinsley I think -- I believe his work focused  
11 in on coal washing aspects and the water implications and  
12 permitting implications for the Bureau of Water.  
13 Otherwise, no section was -- no portion of that section  
14 was off limits for comments from myself, Chris and  
15 Laurel.

16 MR. KIM: For clarification, Mr. Kinsley is  
17 a Bureau of Water employee, not Bureau of Air.

18 HEARING OFFICER TIPSORD: And I would just  
19 also like to note for the record that the answers to  
20 these questions are similar to a question -- there was a  
21 question from Ameren that is similar, and we will have to  
22 revisit it because Ameren's question is a little broader,  
23 but just for the record, this is similar to a question  
24 asked by Ameren. I believe it's question 6.

1                   MR. ROSS: Of 94. Question 3, "Please  
2 provide the names of each person that participated in the  
3 preparation of Section 9." Section 9 of the TSD was  
4 primarily just a publishing of the economic modeling  
5 results supplied by ICF Resources, which is the company  
6 that was retained by the Agency to perform economic  
7 modeling of the impact of the proposed mercury rule.  
8 Agency personnel who contributed to this section include  
9 myself and Rob Kaleel.

10                   "For each of the people provided in answer to" --

11                   HEARING OFFICER TIPSORD: Excuse me.

12                   Mr. Rieser.

13                   MR. FORCADE: Slower. If you wouldn't mind,  
14 I'd like to write stuff down as you respond.

15                   MR. RIESER: And I'm sorry. I know this was  
16 discussed. Will there be anyone from ICF who will  
17 testify in support of the ICF report that was included as  
18 part of the TSD?

19                   MR. ROSS: No, there will not. We will have  
20 a economic expert who will be testifying and able to  
21 answer questions regarding the modeling performed by ICF.

22                   MR. RIESER: That's Dr. Hausman?

23                   MR. ROSS: That's correct.

24                   MR. RIESER: Thank you.

1 HEARING OFFICER TIPSORD: Excuse me.  
2 Mr. Forcade, did you get those names? Did you get what  
3 you needed?

4 MR. FORCADE: No, but when we get to my  
5 number 12, I'll revisit the issue.

6 HEARING OFFICER TIPSORD: Okay.

7 MR. ROSS: 4, "For each of the people  
8 provided in answer to question 3, explain the specific  
9 role that each played in the preparation of Chapter 9 and  
10 identify the subsections which they participated in  
11 drafting." I believe I answered that.

12 MR. FORCADE: Mr. Ross, if I understand  
13 correctly, you said it was yourself and Rob Kaleel?

14 MR. ROSS: That's correct.

15 MR. FORCADE: What background do you have in  
16 economics?

17 MR. ROSS: I had economic analysis in  
18 college, but I have very limited background, and again,  
19 that section was just a publishing of the economic  
20 modeling results from ICF.

21 MR. FORCADE: Well, if you'll excuse me for  
22 probing this, the bottom line is we have a report with no  
23 one to testify relating to its preparation, the inputs to  
24 the model, unless there's folks that I haven't

1 identified, so I'd like to probe at least the issue of  
2 those who provided comments on it, what were the areas of  
3 the comments, what --

4 MR. ROSS: I believe as far as input and  
5 discussions that occurred prior to the modeling, I will  
6 be able to testify in some degree to that, and so will  
7 Dr. Hausman, who has had discussions directly with ICF  
8 regarding those specific items, so the economic expert  
9 that we will have testifying here has communicated with  
10 ICF and asked a lot of those very same questions.

11 MR. FORCADE: My understanding is that the  
12 two individuals who provided comments on it were yourself  
13 and Rob Kaleel. Is that correct?

14 MR. ROSS: Provided comments? I wouldn't  
15 say provided comments. That the two individuals that  
16 prepared that section was myself and Rob Kaleel, that's  
17 correct.

18 MR. FORCADE: And you're saying now that  
19 there's an external expert who did not prepare the ICF  
20 report who will be testifying?

21 MR. ROSS: That's correct.

22 MR. FORCADE: And did that individual  
23 participate in the preparation of that chapter?

24 MR. ROSS: No, he did not.

1                   MR. FORCADE:  And could you also identify  
2  what, if any, economic education, experience and  
3  qualifications Rob Kaleel would have?

4                   HEARING OFFICER TIPSORD:  Excuse me.  I --  
5  Actually, Mr. Kaleel is scheduled to testify.

6                   MR. FORCADE:  Oh, is he?

7                   HEARING OFFICER TIPSORD:  I think you can  
8  ask him that question.  He'd be better able to answer  
9  that.  He has prefiled testimony, although brief, but he  
10 is one of their witnesses.

11                  MR. KIM:  I would say for clarification  
12 Mr. Kaleel is available to testify, but I don't believe  
13 he was going to -- we don't have him right now scheduled  
14 to provide any specific answer.  He was again -- Just a  
15 moment.  He was another one of our backup witnesses in  
16 case we had scheduling problems, and there were no  
17 specific questions -- prefiled questions posed to  
18 Mr. Kaleel.  There were some general Agency questions  
19 that listed him among other people that I believe the  
20 questioners thought, you know, would be best situated to  
21 answer.  He's available but he will not be actually -- we  
22 don't have him scheduled to answer any questions at this  
23 point.

24                  HEARING OFFICER TIPSORD:  So you don't plan

1 to present Mr. Kaleel?

2 MR. KIM: No, but he is -- if need be, he  
3 can answer, you know, questions as they come up or we can  
4 provide them in written answers, whatever's --

5 HEARING OFFICER TIPSORD: Mr. Kim, I think  
6 you're going to need to bring Mr. Kaleel down to talk  
7 about the economic --

8 MR. KIM: He's been here every day.

9 HEARING OFFICER TIPSORD. Okay. I just --

10 MR. KIM: My only point was that he is  
11 not -- he has not been presented with any specific  
12 questions and all of the general Agency questions that  
13 arguably might go to someone within the Agency are being  
14 addressed either by Jim Ross or someone Jim Ross  
15 designates.

16 HEARING OFFICER TIPSORD: Mr. Forcade?

17 MR. FORCADE: Madam Hearing Officer, if none  
18 of the ICF report and none of the Chapter 9 and 10 of the  
19 TSD says Rob Kaleel wrote this, I don't know how I could  
20 have posed questions to Rob Kaleel.

21 MR. KIM: And again, I'm looking at --  
22 Mr. Kaleel had the luxury of the shortest prefiled  
23 testimony of any Agency witness, all two paragraphs, and  
24 I don't believe he made any statement that he was holding

1 himself out to have any kind of economic background or  
2 expertise in any particular area.

3 HEARING OFFICER TIPSORD: Well, but since  
4 you don't plan to present him, I guess Mr. Ross is going  
5 to have to explain his economic background, Mr. Kaleel's  
6 economic background.

7 MR. KIM: When I say we're not presenting  
8 him, he can answer. He can come up and he can answer  
9 that question. I was just saying he's not been tabbed to  
10 answer any specific questions that were submitted in  
11 prefiled form.

12 HEARING OFFICER TIPSORD: I understand that,  
13 but you did prefile testimony for Mr. Kaleel, so --

14 MR. KIM: Yes, yes, and I believe the rule  
15 is that anybody that does that has to be available for  
16 cross examination, and he is available.

17 MR. FORCADE: I'm simply trying to explore  
18 who participated in the preparation of this particular  
19 chapter and what input they had to the document, and I  
20 think there's a pending question. If you can't answer  
21 them, that's fine.

22 MR. ROSS: I'm not aware of Mr. Kaleel  
23 having any broad economic background, and he was not  
24 selected to prepare Section 9 because we felt that he had

1 some broad economic understanding. He was merely  
2 selected to assist us in putting the IPM modeling results  
3 into the Technical Support Document. That's all Section  
4 9 was, was a publishing of the economic modeling results.  
5 We did not reach any conclusions ourselves. We merely  
6 wanted to present the results, and the conclusions  
7 reached therein were the conclusions of ICF Resources.  
8 They were not the Illinois EPA's conclusions, but we  
9 thought it was important that that economic impact  
10 analysis be presented in our Technical Support Document.

11 MR. FORCADE: Am I correctly understanding  
12 you now, sir, that ICF did not participate in the  
13 preparation of Chapter 9 of the TSD? They did not write  
14 any of the language in there?

15 MR. ROSS: They wrote -- It depends on how  
16 you put that. They wrote most of the language in there.  
17 They prepared a final report for us, and what we did was  
18 take that final report and incorporate it into our  
19 Technical Support Document. Now, we reworded some of it  
20 to make it read easier, but that's about the extent of  
21 the changes we made to their report that they provided to  
22 us.

23 MR. FORCADE: Going back, then, is it safe  
24 to say that ICF prepared and submitted the ICF report,



1 which I believe is Exhibit C to the Technical Support  
2 Document?

3 MR. ROSS: I believe that's correct, yes.

4 MR. FORCADE: Okay. Did -- When was that  
5 report finished and submitted to the Agency?

6 MR. ROSS: I don't know the exact date on  
7 that. I believe it was fairly close to the filing date  
8 of the rule.

9 MR. FORCADE: That would be March 10 of  
10 2006?

11 MR. ROSS: Yes. Looking at the report right  
12 now, that is correct.

13 MR. FORCADE: When was Chapter 9 of the  
14 Technical Support Document written?

15 MR. ROSS: I would say March 11.

16 MR. FORCADE: Did you provide a draft of  
17 Chapter 9 of the Technical Support Document to ICF?

18 MR. ROSS: No, we did not.

19 MR. FORCADE: Has ICF seen Chapter 9 of the  
20 TSD?

21 MR. ROSS: I can't answer that. They  
22 provided drafts of their final report to us before this  
23 final report that we've included as an appendix to the  
24 TSD. They provided that, several versions, before the

1 March 10 final document.

2 MR. FORCADE: Would it be safe to say, then,  
3 that ICF did not draft any of the language in Chapter 9  
4 or review the language in Chapter 9 of the TSD except to  
5 the extent that you quoted language from their report or  
6 earlier reports?

7 MR. ROSS: That's correct.

8 MR. FORCADE: Okay. In view of the fact  
9 that you've now raised the issue of documentation  
10 contained in earlier reports from ICF, would you please  
11 prepare and submit for the Board all earlier drafts of  
12 the ICF report?

13 MR. ROSS: I suppose we could. I mean,  
14 there were several versions of those. I received some of  
15 them via -- most of them, I believe, via e-mail, would  
16 have to go back and pull those up. There was probably,  
17 estimating, six, seven drafts before this final.

18 MR. FORCADE: I understand, but if I'm  
19 understanding your testimony correctly, you're saying no  
20 one with any economic education, background and skills  
21 wrote Chapter 9. It was written from one document and  
22 the predecessor versions of that document. Therefore,  
23 for me to evaluate what in fact is contained in TSD  
24 Chapter 9 --

1                   MR. ROSS: Well, I wouldn't say predecessor  
2 versions. I would say we waited till we got the final  
3 before we started drafting Section 9.

4                   MR. FORCADE: Right, but you relied upon  
5 language contained in earlier drafts or earlier whatever  
6 you call --

7                   MR. ROSS: I don't believe --

8                   MR. FORCADE: -- communications with ICF --  
9 pardon?

10                  MR. ROSS: I don't believe we did.

11                  MR. FORCADE: Then would it be safe to say  
12 that any language in Chapter 9 that is not direct quote  
13 from the ICF report can be stricken?

14                  MR. ROSS: No. We revised some of the  
15 language to make it read better. In other words, ICF was  
16 directing the results to the Illinois EPA. They were  
17 talking to us in the report, so we took out that frame of  
18 reference and made it read better to a person -- we felt  
19 we made it read better to a person reading the Technical  
20 Support Document.

21                  MR. FORCADE: I'm a little confused. I  
22 thought I heard earlier testimony by you that you -- in  
23 making the revisions or drafting the Chapter 9 language  
24 that you relied on earlier communications from ICF. Are

1 you now saying that is not true, there were no prior --

2 MR. ROSS: I don't believe I said that. I  
3 believe I said there were earlier versions. We spoke  
4 with ICF throughout the process, but when it came down to  
5 actually putting something into the Technical Support  
6 Document, we waited till the final report.

7 MR. FORCADE: I understand.

8 MR. ROSS: We did not draft different  
9 versions of Section 9 based on previously submitted  
10 drafts of their final report. We waited till the final  
11 report till we drafted Section 9.

12 MR. FORCADE: I understand the timing.

13 MR. ROSS: Okay.

14 MR. FORCADE: My question was, in drafting  
15 Section 9, did you limit all of the language that you  
16 drafted to words that were contained in the ICF report  
17 that --

18 MR. KIM: I believe he's answered the  
19 question, that that document was the basis for Section 9  
20 with the exception of some changes that were made to make  
21 the language more readable. I think he's testified to  
22 that a couple, two, three times now.

23 MR. FORCADE: I'd like to review the  
24 testimony when it comes out and possibly have additional

1 questions.

2 HEARING OFFICER TIPSORD: Mr. Harrington?

3 MR. HARRINGTON: Am I correct that you  
4 earlier stated that Chapter 9 does not reflect the  
5 conclusions of the Illinois Environmental Protection  
6 Agency but was merely a republishing, in essence, of a  
7 report you received from some third party?

8 MR. ROSS: To some extent, that is true. We  
9 agree with some of the conclusions. We feel, as our  
10 expert will testify, that some of the conclusions are  
11 suspect. I mean, you'll see that the economic modeling  
12 that ICF performed does not directly correlate with the  
13 work Dr. Staudt did, does not directly correlate with the  
14 prefiled testimony of our economic expert, so to that  
15 extent, there is some level of discrepancy which -- and I  
16 think a lot of this will be discussed in detail when we  
17 get to Section 9 of the Technical Support Document, which  
18 is scheduled for later on in this hearing, and our  
19 economic expert will be up here and I will be beside him  
20 and we can go over this in some detail.

21 MR. HARRINGTON: Just so I understand it,  
22 you are not asking the Board to accept Chapter 9 as  
23 either the opinion or the position of the Agency in this  
24 proceeding.

1 MR. ROSS: Not in its entirety, I would say.

2 MR. HARRINGTON: Thank you.

3 HEARING OFFICER TIPSORD: Before we go on,  
4 Mr. Forcade, you had asked for a production of drafts?

5 MR. KIM: Can I -- I was going to say, can I  
6 ask one question of Mr. Ross and then revisit  
7 Mr. Forcade's request?

8 HEARING OFFICER TIPSORD: Okay.

9 MR. KIM: Was any document provided by ICF  
10 Consulting other than the document which is dated March  
11 10, 2006, relied upon in the preparation of Section 9 of  
12 the Technical Support Document?

13 MR. ROSS: I don't believe so.

14 MR. KIM: With that answer, I'm -- I would  
15 request that earlier drafts, to the extent we can even  
16 find them, would not need to be requested since his  
17 testimony -- I think he already gave that. I'm just -- I  
18 asked him that just so it's clear on the record. I  
19 believe the only document that we relied upon to prepare  
20 the Technical Support Document, or at least this section,  
21 is the document that's in the TSD, and therefore I don't  
22 think it's necessary to go beyond that.

23 MR. FORCADE: I'd be willing to defer  
24 questions right now, but since this is an issue that has

1 not been responded to, I'd like the opportunity to review  
2 the ICF and Chapter 9 on a line-by-line basis and, if I  
3 can find concepts in there that are not in the ICF  
4 report, to revisit those questions with Mr. Ross or  
5 whoever would be the appropriate witness.

6 MR. KIM: And that would be perfectly  
7 acceptable with us.

8 HEARING OFFICER TIPSORD: Let's be clear.  
9 That would be perfectly acceptable to the Board as long  
10 as it's this -- during this set of hearings, because at  
11 this point the Agency's scheduled to give its testimony  
12 through the end of this week.

13 MR. FORCADE: Correct. I've just --

14 HEARING OFFICER TIPSORD: All right. I just  
15 wanted --

16 MR. FORCADE: I just have not in the last  
17 four minutes had the opportunity to do a comparison of --

18 HEARING OFFICER TIPSORD: I absolutely  
19 understand that, but I wanted to be clear on the record  
20 that at this point we're still talking about concluding  
21 the Agency's testimony by Friday.

22 MR. FORCADE: Yes.

23 HEARING OFFICER TIPSORD: Okay. Thank you.

24 MR. FORCADE: Mr. Ross, could you tell me

1 what information was provided relative to the ICF report  
2 to the external expert that will be testifying on  
3 economics?

4 MR. ROSS: Well, we provided them with I  
5 believe all information provided by ICF to us, which  
6 included this final report and all the accompanying  
7 files, parse files they call them, huge documents, which  
8 we've I think made part of the record. That was asked  
9 for the first day I testified. Hopefully it's been made  
10 part -- We supplied it to our legal staff to make it part  
11 of the record. Whether it's been made part of the  
12 record, I'm not certain, but they are in possession of  
13 it, and we've previously provided it to anyone who's  
14 requested it through a Freedom of Information Act. As we  
15 mentioned during the stakeholder meetings, everything  
16 that ICF gave us is available as far as final reports and  
17 all the accompanying documents.

18 MR. FORCADE: And the economic experts that  
19 you're talking about that will testify are who?

20 MR. ROSS: Ezra Hausman with Synapse.

21 MR. FORCADE: I'm sorry?

22 MR. ROSS: He's with Synapse.

23 MR. FORCADE: Anyone else?

24 MR. ROSS: Some of Dr. Staudt's testimony is



1 economic-related, but he is the primary person to answer  
2 questions regarding the ICF modeling.

3 MR. FORCADE: And did either one of those  
4 two individuals review or provide comments on Chapter 9  
5 of the Technical Support Document?

6 MR. ROSS: Prior to us submitting the TSD or  
7 after? I would say afterwards certainly we've discussed  
8 Section 9 in detail with Ezra Hausman with Synapse.

9 MR. FORCADE: Let's stick right now with  
10 prior to the submission of the Technical Support  
11 Document.

12 MR. ROSS: Prior to the submission?  
13 Certainly not Ezra Hausman with Synapse. He was not  
14 retained at that period, I believe. Dr. Staudt, not too  
15 much, I don't believe. I don't recall any specific  
16 comments from Dr. Staudt. We shared the results with  
17 him. We discussed them with him periodically. I don't  
18 recall -- He certainly didn't submit comments to the  
19 extent that we incorporated his comments or revised some  
20 portion of Section 9 of the Technical Support Document as  
21 a result of his comments, nothing to that extent, if  
22 that's where you're going.

23 MR. FORCADE: Just trying to find out who  
24 had input into Chapter 9.

1 HEARING OFFICER TIPSORD: All right. With  
2 that, let's take a ten-minute break, please.

3 (Brief recess taken.)

4 HEARING OFFICER TIPSORD: I believe we are  
5 on Kincaid question number 5.

6 MR. ROSS: Question 5, "Please provide the  
7 names" --

8 HEARING OFFICER TIPSORD: Oh, excuse me.  
9 Mr. Zabel?

10 MR. ZABEL: I had a follow-up question,  
11 Mr. Ross. You indicated in answer to -- in answering a  
12 question from Mr. Forcade that the Agency does not -- I  
13 don't know the precise wording. He asked if you relied  
14 on the ICF report in Chapter 9 and you said not entirely,  
15 and my question is, how do we know which parts the Agency  
16 is relying on?

17 MR. ROSS: Well, we can discuss that when we  
18 get to Section --

19 MR. ZABEL: And would that be you? Would  
20 you be the appropriate witness for that?

21 MR. ROSS: Yes.

22 MR. ZABEL: Then we will. Thank you.

23 MR. ROSS: Okay.

24 HEARING OFFICER TIPSORD: Kincaid question

1 number 5.

2 MR. ROSS: "Please provide the names of each  
3 person that participated in the preparation of Chapter 10  
4 of the TSD." Section 10 was a collaborative effort  
5 between numerous Agency personnel. These included  
6 myself, Jim Ross; Chris Romaine; Rob Kaleel; Rory Davis;  
7 Dr. Staudt.

8 MR. FORCADE: I'm sorry. Could you just go  
9 slow enough I could write?

10 MR. ROSS: I'm sorry.

11 MR. FORCADE: Jim Ross.

12 MR. ROSS: Jim Ross, Chris Romaine, Rob  
13 Kaleel, Rory Davis -- Rory, R-O-R-Y, Davis -- Dr. Staudt,  
14 Joe Uy, U-Y, and other staff members.

15 "For each of the people provided in answer to  
16 question 5, explain the specific role that each played in  
17 the preparation of Chapter 10 and identify the specific  
18 sections which they participated in drafting." And it is  
19 extremely difficult to answer this question, as numerous  
20 sources were consulted and the range of information  
21 provided by any given source ranges from nothing to a  
22 significant portion of a particular subsection. In  
23 general, this section was prepared by Agency personnel,  
24 including myself, and provides a summation of information

1 that was obtained from numerous sources, including  
2 Regional Transmission Organizations PJM and MISO, the  
3 Illinois Commerce Commission, Illinois Department of  
4 Commerce and Economic Opportunity, Institute of Clean Air  
5 Companies, USEPA and several environmental groups.

6 MR. FORCADE: In that -- I'm sorry. In that  
7 case, Mr. Ross --

8 HEARING OFFICER TIPSORD: Try the one behind  
9 you. The battery may be dead.

10 MR. FORCADE: In that case -- Is that  
11 working?

12 HEARING OFFICER TIPSORD: Yeah.

13 MR. FORCADE: In that case, Mr. Ross, could  
14 you identify who may have participated in the preparation  
15 of Section 10.3, "Potential Economic Benefits other than  
16 Health-Related"?

17 MR. ROSS: Give me a second to look at that.  
18 That would be myself and the assistance of Illinois PIRG.  
19 PIRG is an acronym for Public Interest Research Group, I  
20 believe.

21 MR. FORCADE: Could you identify who from  
22 Illinois PIRG participated in drafting and reviewing this  
23 section?

24 MR. ROSS: They provided information to

1 myself. It was -- I believe my contact there was Rebecca  
2 Stanfield.

3 HEARING OFFICER TIPSORD: I'm sorry. Was  
4 that Rebecca Stanfield?

5 MR. ROSS: That's correct.

6 MR. FORCADE: And what information did she  
7 provide?

8 MR. ROSS: She provided information -- in  
9 particular the information contained in Table 10.1 and  
10 some of the information on cost and revenues associated  
11 with fishing and hunting and wildlife activities.

12 MR. FORCADE: And how did she provide this  
13 information to you? Did she provide you copies of  
14 reports, or how?

15 MR. ROSS: I believe she provided me a paper  
16 that had this information on it and then we talked in a  
17 phone conversation and then once in person.

18 HEARING OFFICER TIPSORD: Can I ask a  
19 question? Was this information presented, like, at the  
20 stakeholders' meetings or was this just between --

21 MR. ROSS: During the stakeholder meetings,  
22 correct.

23 MR. FORCADE: Just as an example, Mr. Ross,  
24 I believe that Table 10.1 says economic information on

1 sportfishing, jobs, 12,886. Is there any independent  
2 verification other than a communication with Rebecca that  
3 12,886 jobs are associated with sportfishing?

4 MR. ROSS: I did ask staff to look that over  
5 and let me know if there were some inconsistencies in  
6 data, and I was not made aware of any inconsistencies in  
7 the data.

8 MR. FORCADE: And the economic output is  
9 listed as I believe 1.6 billion dollars. Is there any  
10 independent verification for that?

11 MR. ROSS: Same thing occurred. I asked  
12 staff to look it over and I was not made aware of any  
13 inconsistencies.

14 MR. FORCADE: Can I ask who in staff?

15 MR. ROSS: I believe it was at the time Rory  
16 Davis, Joe Uy.

17 MR. FORCADE: And do you know on what basis  
18 they concluded that there were no inconsistencies --

19 MR. ROSS: No, I do not.

20 MR. FORCADE: -- and inconsistencies with  
21 what?

22 MR. ROSS: I believe a review of the  
23 literature.

24 MR. FORCADE: Will Rebecca Stanfield be

1     testifying about these numbers?

2                   MR. ROSS:  She -- Not on behalf of the  
3     Agency.

4                   MR. FORCADE:  Will Rory Davis be testifying  
5     about these numbers?

6                   MR. ROSS:  No.

7                   MR. FORCADE:  Do you have any independent  
8     knowledge or research of your own to verify the numbers  
9     contained in Table 10.1?

10                  MR. ROSS:  No.

11                  HEARING OFFICER TIPSORD:  Ms. Bassi?

12                  MS. BASSI:  In what fashion was this  
13     provided during stakeholder meetings, this information?

14                  MR. ROSS:  As I mentioned, through -- she  
15     provided a document.  She contained that document in an  
16     e-mail, and then we met with the environmental groups on  
17     several occasions during the stakeholder process, as we  
18     offered to meet with everyone.  The environmental groups  
19     readily took us up on that offer and we met with them  
20     several times.

21                  MS. BASSI:  Yes, I see.  Does Miss  
22     Stanfield -- is that her name?

23                  MR. ROSS:  Yes.

24                  MS. BASSI:  -- have any expertise in this

1 area?

2 MR. ROSS: I can't answer that. I do not  
3 know.

4 MS. BASSI: How does the Agency rely on  
5 something where you can't verify the expertise?

6 MR. ROSS: They provided us information. I  
7 asked staff to look into it.

8 MS. BASSI: But they -- But I think you just  
9 said staff didn't verify it; they just verified there was  
10 no inconsistencies. What did they look at?

11 MR. ROSS: I believe they did a literature  
12 research. They did some research to check the numbers.  
13 I would have to specifically ask them that question,  
14 which I have not, and probably get back to you. We just  
15 felt it was important that we provide information on this  
16 topic, and we tried to characterize it as -- and we did  
17 in fact characterize it as potential impacts.

18 MS. BASSI: 12,886 is pretty unpotential.  
19 It's a pretty definite number.

20 MR. KIM: Is that a question?

21 MS. BASSI: Isn't it?

22 MR. ROSS: It's a large number, but again,  
23 it's in the context how we present it, and we present it  
24 as potential economic benefits, so we were doing what we



1 felt the best we could given our limitations with staff  
2 to provide information to the Board and others in our  
3 Technical Support Document related to the impact of the  
4 mercury rule, so --

5 MS. BASSI: So the best economic -- positive  
6 economic result from this rule is potentially 12,886 jobs  
7 in fishing, hunting -- in the fishing and hunting  
8 industry?

9 MR. ROSS: I believe that was identified as  
10 one of the potential positive impacts of the rule.

11 CHAIRMAN GIRARD: Mr. Ross, I have a  
12 question. You have a list of references at the back of  
13 the TSD. Are any of these references listed among the  
14 documents that you used to come up with Table 10.1?

15 MR. ROSS: I would have to review that, but  
16 it was submitted to be listed, so I believe it should be  
17 in there.

18 CHAIRMAN GIRARD: Well, do you need some  
19 time to look that over or -- I'm not saying we'd take the  
20 time right now, but --

21 MR. ROSS: Yeah, I would need time.

22 CHAIRMAN GIRARD: Also you mentioned that  
23 you did get some other documents from some other  
24 individuals. Have those documents been placed into the

1 record? Are they in a larger box of records that backs  
2 up the different sections?

3 MR. ROSS: To a large part, we definitely  
4 tried to include all the documents that we looked at and  
5 referenced in our list of references, so I would say yes,  
6 but have I myself gone back and reviewed and  
7 cross-compared to make sure? I have not. So I believe  
8 we definitely submitted all those documents to the person  
9 who was responsible for compiling a list of references.  
10 Did they actually make it on there? I would think so.  
11 Have I gone back and independently verified it? No, I  
12 have not.

13 HEARING OFFICER TIPSORD: Well, I would  
14 think at a minimum we need to be sure and identify the  
15 set of documents from Rebecca Stanfield. You should  
16 probably specifically give us the title and reference.

17 MR. KIM: Well, and we will look at it. I'm  
18 assuming that the reference is actually on the bottom of  
19 page 189 of the TSD, that this is information provided  
20 from the American Sportfishing Association, but we will  
21 look into that and find out where the specific literature  
22 is. If it's not in the TSD as a specific exhibit, we'll  
23 try and get copies as soon as possible.

24 MR. ROSS: And we have a day or so set aside

1 to discuss I believe Section 10 of the Technical Support  
2 Document, and at that time I will have done a thorough  
3 look-back and evaluation of everything in Section 10. I  
4 have not done that at this time due to the large number  
5 of questions. I'm trying to take everything kind of in  
6 stride as they come up, so I did not focus my studies on  
7 Section 9 and 10 since they will be later in the hearing.

8 MR. KIM: But we will try to find out if  
9 we've got that documentation, and if we do, we'll have it  
10 before that time comes.

11 HEARING OFFICER TIPSORD: And like I said, I  
12 mean, just as -- it would make things easier, because if  
13 we all knew that the document Rebecca Stanfield supplied  
14 to you was something already in here, that would maybe  
15 better direct the questions. It just sounded like it  
16 might not be, so --

17 MR. KIM: Right, and that's why I -- and I  
18 think to further that, as soon as we have it, we won't  
19 wait until that topic comes up. We'll get it as soon as  
20 possible so that people have a chance to look at it  
21 before we get there.

22 HEARING OFFICER TIPSORD: Mr. Forcade?

23 MR. FORCADE: Yes. Just as a sort of a  
24 preview of where I would like to go once we get the

1 information, I had questions relating to whether the jobs  
2 listed were full time or part time, how the economic  
3 information was calculated, what calendar year or the  
4 time period does the information relate to. I'm assuming  
5 it would -- the Agency's preference was that those  
6 questions be asked at a later time?

7 MR. KIM: I'm guessing we'll find out how  
8 specifically precise we can be in answering your  
9 questions after we locate the data and see what's in  
10 there.

11 HEARING OFFICER TIPSORD: Mr. Zabel?

12 MR. ZABEL: Just so I'm clear, Mr. Ross,  
13 this is purely a quantification of whatever someone  
14 thinks the current level of this sporting activity is in  
15 Illinois. It's no projection of the impact of the rule.

16 MR. ROSS: I'm not certain. I need to go  
17 back and review that particular section.

18 MR. ZABEL: Table 10.1 says sportfishing in  
19 Illinois for 2001. Rule obviously wasn't in effect in  
20 2001, so this is just historic data based on somebody's  
21 calculation; is that correct?

22 MR. ROSS: That's what it certainly appears  
23 to be, yes.

24 MR. ZABEL: And there's no quantification in

1 Section 10.3 of what that potential impact might be; is  
2 that correct?

3 MR. ROSS: That's correct. I also would  
4 like to add that our economic expert I believe has looked  
5 at this information and will be able to provide insight  
6 or perhaps independent verification of some of the  
7 numbers.

8 MR. ZABEL: And again, is that Dr. Hausman?

9 MR. ROSS: Yes, it is.

10 MR. ZABEL: And last question, what does the  
11 Agency mean by potential?

12 MR. ROSS: Possible.

13 MR. ZABEL: Thank you.

14 HEARING OFFICER TIPSORD: Are we ready for  
15 question 7?

16 MR. ROSS: 7, "What information did you use  
17 to determine the economic effect of the proposed mercury  
18 control regulations as stated in the TSD and where did  
19 you obtain that information?" The Agency took several  
20 steps to determine the economic effect of the proposed  
21 rule as stated in the TSD, including retaining the  
22 services of ICF Resources to conduct economic modeling.  
23 We retained the services of mercury cost and control  
24 expert Dr. Staudt and we conducted our own research and

1 analysis.

2 HEARING OFFICER TIPSORD: Mr. Forcade?

3 MR. FORCADE: Could you describe your own  
4 economic research and analysis, please?

5 MR. ROSS: Yeah. I think I did that  
6 initially, but we spoke with many experts. We conducted  
7 a literature research. We had many, many meetings. We  
8 also spoke with utilities as part of the stakeholder  
9 process. We ironed out some of the issues. We relied a  
10 great deal on what other state agencies had done, to some  
11 extent on what other state agencies had done, the  
12 Michigan report and what USEPA had performed, so those  
13 are some of the things we did.

14 MR. FORCADE: Who within the Agency would  
15 have done that?

16 MR. ROSS: Numerous staff members.

17 MR. FORCADE: Would you please describe all  
18 of the economic training, degrees and background of  
19 numerous staff?

20 MR. ROSS: I can only speak for myself on  
21 that, and I've gone into my economic background. I don't  
22 have the economic credentials of all staff in front of  
23 me, but --

24 MR. FORCADE: Is there anyone within the

1 Agency that was charged with looking at research and  
2 other inquiries that you are aware of having economic  
3 education or degrees?

4 MR. ROSS: No, not that I'm aware of.  
5 That's one reason we thought it essential to retain  
6 the -- retain Dr. Staudt to assist us in this process.

7 MR. FORCADE: In addition to the information  
8 you received from ICF and I'm not sure to the extent  
9 Dr. Staudt and Dr. Hausman may have collaborated, were  
10 the conclusions of anyone in the Agency at odds with  
11 those opinions?

12 MR. ROSS: Of Dr. Staudt's opinions?

13 MR. FORCADE: And the ICF report and  
14 Dr. Hausman.

15 MR. ROSS: Well, I've discussed the ICF  
16 report. With Dr. Staudt, I believe it was general  
17 consensus.

18 MR. FORCADE: I'm sorry. You've listed  
19 three entities supporting the economic position of the  
20 Agency.

21 MR. ROSS: Right.

22 MR. FORCADE: One of them was the ICF  
23 report, one of them was Dr. Staudt, one was Dr. Hausman.  
24 You've also mentioned that there were numerous people

1 within the Agency who reviewed or evaluated economic  
2 information. What I'm trying to find out, if any of the  
3 numerous people within the Agency have disagreements or  
4 alternative opinions to Dr. Staudt, Dr. Hausman and the  
5 ICF report.

6 MR. ROSS: Certainly, but the -- just to  
7 clarify, the question was regarding the economic impacts  
8 determined for the TSD. At the time of development and  
9 publication of the TSD, we had not retained the services  
10 of Dr. Hausman, so I did not include him as a resource  
11 that was used to develop the Technical Support Document,  
12 but certainly there were disagreements, and we discussed  
13 numerous options and --

14 MR. FORCADE: I'm simply trying to find out,  
15 in an effort to probe the question of the Agency's  
16 economic position, do I need to go beyond the ICF report  
17 and Dr. Staudt and Dr. Hausman? If the answer is no --

18 MR. ROSS: No.

19 MR. FORCADE: You stated this was the  
20 information that you relied upon. What was the  
21 information that you provided to the ICF Resources,  
22 Incorporated, to Dr. Staudt and Dr. Hausman?

23 MR. ROSS: To both of them, I believe we  
24 provided everything they requested, but most certainly



1 the -- and we'll get into talking about the IPM modeling  
2 in detail, and at that time I will have thoroughly  
3 reviewed it, but we provided all the inputs for the  
4 model. We had several discussions prior to modeling on  
5 how to best model Illinois' proposed rule, and the IPM  
6 modeling did not lend itself for a direct correlation  
7 between what they could model and what our rule required,  
8 so we did have to make some concessions or some changes  
9 to how they would model our rule, and it would -- there  
10 was general agreement that where we change the parameters  
11 that we would model, we would err on the side of being  
12 conservative; that is, we would model a more stringent  
13 rule than what we were actually proposing so that the  
14 results in turn would be more conservative for a more  
15 stringent rule than what Illinois was proposing, so the  
16 impacts would be conservative.

17 MR. FORCADE: Would it be more prudent to  
18 hold some of these questions for -- I'm happy to explore  
19 them now or later, but the impression I'm getting from  
20 Mr. Ross is perhaps some of his questions would be better  
21 addressed later; is that correct?

22 MR. KIM: And -- Well, I think so, if  
23 nothing else, because I think there is a request that at  
24 least Mr. Forcade has made for some documentation that

1 was exchanged back and forth between the Agency and ICF,  
2 and we're in the process of trying to compile all that  
3 and get that ready, so I'm assuming that after you get  
4 that information you'd probably be in a better position  
5 to frame the questions. And that -- we're hoping to have  
6 that done in the next -- I'm hoping by tomorrow morning,  
7 no later.

8 MR. FORCADE: With permission, then, I'd  
9 like to hold question 8 and go to 9, if I could.

10 MR. ROSS: Question 9 will be answered by  
11 Dr. Staudt.

12 MR. FORCADE: Okay.

13 MR. ROSS: Question 10, "Tables 8.5 and 8.6  
14 of the TSD list typical mercury content of coal and  
15 projected mercury in coal. What is the Agency's  
16 understanding of how representative these values are for  
17 the coal fired at each of the coal-fired electric  
18 generating units in Illinois?" The Agency believes the  
19 values in Table 8.5 to be representative of the typical  
20 characteristics of bituminous and sub-bituminous coals  
21 and that the information in the table and the resource is  
22 reliable.

23 Question b, "If analytical inaccuracies showed a  
24 mercury content that was 5 percent higher or lower than

1 the actual value, what impact would this have on the  
2 nature of the control technology required to achieve a 90  
3 percent reduction?" And this question is kind of  
4 difficult to answer. Coal properties are just simply one  
5 variation in an equation to determine compliance. We  
6 would first like to note that the proposed rule does not  
7 mandate compliance with one single standard. Rather, it  
8 provides the option of choosing between two standards  
9 derived differently. One standard is a mercury reduction  
10 efficiency and the other is an output-based emission  
11 rate, and companies are allowed to utilize any available  
12 control technology and methods to achieve compliance.  
13 And the capture of mercury is a function, as I mentioned,  
14 of many variables and not just coal mercury content as  
15 the question leads one to believe. Some of the variables  
16 include control configurations used, such as ESP,  
17 scrubbers, SCRs, fabric filters, other properties of the  
18 coal, chlorine content, unburned ash that occurs that is  
19 burned, temperature and coal sulfur levels, and many of  
20 this will be discussed in detail by Dr. Staudt, who is  
21 our mercury control expert, and so further discussion of  
22 this question is probably best left to him. It is a  
23 technical question.

24 MR. FORCADE: I don't mind withholding the

1 question for Dr. Staudt, but I would note that it didn't  
2 get answered here.

3 MR. ROSS: Well, there is no one specific  
4 answer to this. The question seems to imply that a 5  
5 percent variation in coal mercury content directly  
6 correlates to some increase or decrease in the mercury  
7 emission levels, and I think it's the Agency's  
8 position -- and Dr. Staudt will back this up -- that you  
9 can't make that direct correlation in a broad sense.  
10 There are so many different variables involved. There  
11 are so many different control configurations on the  
12 Illinois EGUs that the broad nature of the question does  
13 not allow for a direct answer.

14 MR. FORCADE: Perhaps I should rephrase it,  
15 then. If you have one facility that is operating trying  
16 to achieve a 90 percent reduction in mercury -- and  
17 you're shaking your head no.

18 MR. ROSS: Well, that doesn't go down to the  
19 specifics. You'd have to be -- Like I said, there's many  
20 variations there, the type of coal being used, the  
21 control configurations at that facility, do they have --  
22 what are they -- are they firing sub-bituminous coal,  
23 bituminous coal, do they have ESP -- cold-side ESP only,  
24 is it a hot-side ESP; if they're firing bituminous coal,

1 do they have an SCR, ESP and scrubber. So there's many,  
2 many variations that go into answering that particular  
3 question, and again, when you get down to what each  
4 facility is doing, I think we're going to go over that in  
5 detail in -- with Dr. Staudt present here. It's my  
6 inclination to believe that we will almost be going over  
7 each EGU, all 59 of them in the state, perhaps, and what  
8 control configurations each of them have and how the  
9 different controls or options for compliance would be  
10 applied for each of them, so that question is definitely  
11 better answered at that time, and it -- the nature of the  
12 question, it's just too broad. You're not being  
13 specific, and so there is no specific answer, but there  
14 will be when we pick a specific EGU at a specific  
15 facility and you ask that question. I'm sure we'll be  
16 able to answer it to some degree just what variations  
17 would occur.

18 MR. FORCADE: Let me then rephrase it one  
19 more time. If you took one specific facility, such as  
20 Kincaid Generation, LLC, burning one specific type of  
21 coal with one specific configuration, with one specific  
22 set of operating parameters, and there was a 5 percent  
23 variation in the amount of coal mercury coming into the  
24 facility, what would you expect the result to be in terms

1 of the percent reduction achieved?

2 MR. ROSS: I would have to review Kincaid  
3 Generation's control configurations, but I would expect  
4 it would not be adversely impacted to the degree the  
5 question may be implying that --

6 MR. FORCADE: I'm not implying --

7 MR. ROSS: -- a 5 percent variation in coal  
8 mercury content results in a 5 percent variation in the  
9 mercury emitted. It actually depends on what control is  
10 being applied, and we'll get into this in detail with  
11 Dr. Staudt.

12 MR. FORCADE: I'll rephrase the question for  
13 Dr. Staudt when his testimony comes up, then.

14 HEARING OFFICER TIPSORD: Ms. Bassi, you had  
15 a question?

16 MS. BASSI: Sorry.

17 HEARING OFFICER TIPSORD: That's okay.  
18 Before we -- Mr. Ross, when is the Agency planning on  
19 presenting Dr. Staudt?

20 MR. ROSS: Well, I think the plan was to  
21 hopefully get through a lot of my questions, and I think  
22 the next person on the schedule would be Dick Ayres in  
23 Section 6 of the Technical Support Document, followed by  
24 Section 7 of the Technical Support Document, which would

1 be myself and Chris Romaine, and then Dr. Staudt, so  
2 depending on how quickly we get through these questions,  
3 we can get to Dr. Staudt. I would like to note I still  
4 have over 100 questions left to answer.

5 HEARING OFFICER TIPSORD: I understand that.

6 MR. ROSS: And that's why I'm trying to  
7 defer some of these.

8 HEARING OFFICER TIPSORD: And that's -- I  
9 guess that's sort of somewhat of my concern, is that I  
10 understood we were going to get answers to questions, and  
11 we're getting a lot of deferring.

12 MR. KIM: Well, the reason we did that was  
13 when we discussed this, you know, however long ago it  
14 was, what we said was we were going to try and present  
15 the testimony in a way that basically to the extent  
16 possible made some sense, and it seemed like -- you know,  
17 so Mr. Ross today in answering these general questions  
18 that were presented to the Agency, I think, you know, our  
19 intent or our expectation was a lot of these would be  
20 deferred, because a lot of these questions relate  
21 specifically to topics that will be addressed just a  
22 little bit down the road. We're trying to answer any  
23 remaining general questions or, you know, overarching  
24 questions right now. The development of this -- for this

1 week we thought was get the general questions out of the  
2 way; as part of that, get the regulatory oversight, which  
3 would be Mr. Ayres' testimony, out of the way. The next  
4 logical step we thought would be to discuss the emission  
5 standards, which is what led to the specifics of the  
6 rule, and then after that get into the technical  
7 feasibility of the rule and so forth, and that's where I  
8 think a lot of these questions are probably going to  
9 come.

10 HEARING OFFICER TIPSORD: I understand all  
11 that, and that's what you said this morning. I guess my  
12 concern is that I don't want to -- these questions have  
13 been posed, and simply by deferring them, they will be  
14 answered ultimately, and I know you said that, but I just  
15 want to be clear that, Mr. Ross, you may have over 100  
16 questions, but I already have on my list about 12  
17 questions that have been deferred that you've already  
18 answered, and that's okay. That's fine, but I just --  
19 we're not exactly knocking off questions at the speed  
20 with which I had hoped.

21 MR. KIM: Well, I guess our problem is this:  
22 The general Agency questions range, you know, the entire  
23 gamut of the TSD.

24 HEARING OFFICER TIPSORD: I understand.



1                   MR. KIM:  And if we do that -- and I know  
2   that you've been very intent -- and I think it makes  
3   sense -- to keep as clear a record as possible -- today  
4   we're going to be answering questions on modeling and  
5   technology, tomorrow we might be going back to general.  
6   You know, we're going to be jumping all over the place if  
7   we answer them in order, and that's why -- and we  
8   apologize for having to defer these, but again, it's just  
9   the manner -- and there's nothing wrong with how they  
10  presented them, but it's just the manner in which they  
11  were presented that we're trying to grapple with.

12                   HEARING OFFICER TIPSORD:  And not a problem.  
13  I don't have a problem and I don't think anyone else here  
14  does in deferring questions on the Technical Support  
15  Document's specific sections till when the experts are  
16  here.  Like I said, I just wanted to clear that up.

17                   MR. KIM:  We're keeping a list too.

18                   HEARING OFFICER TIPSORD:  I think they're  
19  now saying Dr. Staudt Wednesday or Thursday?

20                   MR. KIM:  We're hoping sooner, but he's --  
21  again, he's here all week.  I think he's in -- he's doing  
22  probably his normal work right now, but -- somewhere in  
23  the building, but we're hoping to get done with Mr. Ross  
24  today, if we're lucky maybe get to either Mr. Ayres or

1 Mr. Romaine today, get them taken care of, and then the  
2 next step, we thought, was going to be our vendors, which  
3 goes along with some of the questions we've deferred to  
4 Mr. Foerter and Mr. Nelson. They will address the  
5 technical -- you know, the equipment issues, and then  
6 we'll go to Dr. Staudt.

7 HEARING OFFICER TIPSORD: All right. Thank  
8 you.

9 MR. FORCADE: In question --

10 HEARING OFFICER TIPSORD: Let's go off the  
11 record for just a second.

12 (Brief recess taken.)

13 HEARING OFFICER TIPSORD: I -- Part of my  
14 concern here, Mr. Kim, is that I'm sensing increasing  
15 frustration from the people who are asking the questions  
16 and from Mr. Ross trying to answer the questions and  
17 frankly, myself, because Mr. Ross is very diligently  
18 trying to answer a question, and the minute he gets a  
19 follow-up -- you know, he gives a one-paragraph answer,  
20 and then as he gets a follow-up, we're being told, "Well,  
21 gee, I'll have to defer." My preference is that if --  
22 Mr. Ross, if you believe you're not going to be able to  
23 fully answer the question, let's just defer them. Let's  
24 not get a paragraph and get a whole bunch of follow-ups

1 that end up with everybody saying, "Okay, then I guess  
2 I'll have to wait," because I'm really sensing  
3 frustration building and I do not -- I share that  
4 frustration, and I -- from everyone. I mean, Mr. Ross is  
5 getting frustrated and I -- people asking the questions  
6 are getting frustrated, so if we can, if you don't think  
7 you can fully answer the question and the follow-ups,  
8 let's defer them until whoever's more -- whoever you're  
9 going to be in the panel with, whether it's  
10 Dr. Hausman -- or is it Mr. Hausman?

11 MR. KIM: Dr.

12 HEARING OFFICER TIPSORD: Dr. Hausman,  
13 Dr. Staudt, whomever, Chris Romaine.

14 MR. KIM: Yes. That would ease a lot of the  
15 frustration, I think, on Mr. Ross' part.

16 HEARING OFFICER TIPSORD: I think so too,  
17 and I think that -- like I said, I think we're all  
18 getting that frustration and I think it's probably best.  
19 Mr. Forcade, just to fill you in quickly, if Mr. Ross  
20 cannot fully answer a question and follow-ups, he's going  
21 to just state that he's going to defer rather than give a  
22 short answer, then that results in follow-ups which he  
23 can't answer.

24 MR. ROSS: And many of these questions are

1 similar, if not identical, to the questions that have  
2 been asked of our experts, but they were addressed to the  
3 Agency so I was trying to present the Agency's initial  
4 perspective with perhaps a more detailed follow-up to be  
5 given later, and that's what I'm trying to convey.

6 MR. KIM: But we're not going to --

7 HEARING OFFICER TIPSORD: And I understand  
8 that, and I -- but I -- like I say, I mean, I sense your  
9 own frustration with getting these questions too, so I --  
10 perhaps it'd be best to do it that way.

11 MR. KIM: We prefer your approach by far.

12 HEARING OFFICER TIPSORD: Mr. Harrington?

13 MR. HARRINGTON: That was the purpose of my  
14 earlier question that was deferred, which is if the  
15 Agency is not the technical witness on this point and not  
16 offering independent testimony, then we're happy to see  
17 it deferred to somebody else who is, but we don't want  
18 the record to have the implication that the Agency  
19 through the Technical Support Document or the testimony  
20 is offering independent expertise which they don't have  
21 and which I think is basically what Mr. Ross has been  
22 telling us, that they're relying on third parties.  
23 That's fine. We'll get to the third parties.

24 MR. KIM: And I think in every case where

1 there is either Dr. Staudt or Dr. Hausman providing  
2 testimony, as Mr. Ross stated, he'll be on the panel at  
3 the same time in case -- you know, if a question's asked  
4 and they say, "Well, what's the Agency's position on  
5 that," Mr. Ross will be right here and he can fill that  
6 gap in.

7 MR. FORCADE: So should I assume from that  
8 that to the extent that Mr. Ross does not say this will  
9 be addressed later that the Agency is going to provide a  
10 full and complete answer to the question?

11 MR. KIM: Well, we intend to answer all the  
12 questions. It's just -- What -- I think what -- and this  
13 is what the Hearing Officer was getting and what Mr. Ross  
14 was getting at. You're going to hear part of your answer  
15 if we go this way. You're going to hear the Agency's  
16 perspective, but then there's this gap where the  
17 technical -- the -- you know, the outside witness is not  
18 here. I think it's going to make a much clearer record  
19 and your answer's going to get answered -- your questions  
20 will be answered much better if they're both here at the  
21 same time, and we would much prefer to be able to not get  
22 into it and just put it off.

23 HEARING OFFICER TIPSORD: Let's -- Then  
24 let's proceed with that. Mr. Rieser?

1                   MR. RIESER:  And I assume that by having  
2  Mr. Ross available, we'll be able to clarify exactly what  
3  portion of the -- for example, a statement in the TSD is  
4  based on the expert witness and what portion is based on  
5  information that the Agency developed on its own or  
6  confirmed on its own.

7                   HEARING OFFICER TIPSORD:  Yeah.

8                   MR. KIM:  Exactly.

9                   HEARING OFFICER TIPSORD:  Yeah.  All right.  
10  Let's proceed.

11                  MR. ROSS:  Well, I would say a quick review  
12  of the questions from Kincaid Generation, they deal with  
13  cost controls and the modeling, which I would not be able  
14  to answer the majority of the follow-up questions, I  
15  predict, completely and to the satisfaction of others  
16  here, so perhaps we should defer them.

17                  BOARD MEMBER MOORE:  There you go.

18                  MR. FORCADE:  Some of the questions, such  
19  as, "List any and all documents used in the preparation  
20  of Table 10.3," I think would have to be answered by the  
21  Agency.  I mean, I don't know how we could rely upon the  
22  expert and --

23                  MR. ROSS:  Well, that's fine, and the answer  
24  to that I think I addressed to some degree, maybe not

1 completely, but all the documents that we used for  
2 Section 10 were provided in the references, I believe.  
3 Now, I think what you're asking is that we go back and  
4 specifically tag or label the specific documents that we  
5 used for Section 10 as being used for Section 10, and  
6 that is something perhaps that we have not done and will  
7 require some effort, follow-up effort.

8 MR. FORCADE: My concern is that the  
9 references in Section 10 alone I think contain close to  
10 50 references, some of which are obviously quite thick.  
11 I'm not sure that it's realistic to expect that I'll be  
12 able to wade through 50 documents to figure out which one  
13 of them might make a reference to something from 10.

14 HEARING OFFICER TIPSORD: Well, I believe  
15 they already indicated that they were going to do that?  
16 Or did I misunderstand earlier, that you were going to  
17 provide -- oh, that was --

18 MR. KIM: That was as to one specific table.  
19 I'm sorry.

20 HEARING OFFICER TIPSORD: I apologize,  
21 Mr. Forcade. I lost track of which table we were talking  
22 about.

23 MR. ROSS: And we will be dedicating a  
24 portion of this hearing, I believe, to Section 10, and a

1 lot of the information -- it depends on which particular  
2 portion of Section 10 you're talking about, but some of  
3 that information was just a best effort by the Agency  
4 after review of literature and discussions with outside  
5 experts to present the information in a Technical Support  
6 Document.

7 MR. FORCADE: Have all the references in  
8 Section 10 been entered into the record?

9 MR. ROSS: I would say all the documents  
10 that were relied upon have been entered into the record.  
11 What we did not do, I'm certain of, was all the  
12 conversations we had with experts, all of our  
13 consultations, whether they be individual conversations  
14 or conference calls or when we spoke with people in  
15 person, which were numerous, we have not identified each  
16 and every one of those events.

17 MR. FORCADE: The references in Chapter 10  
18 start on page 209 and proceed for several pages listing  
19 approximately 50 written references. Have those 50 --  
20 approximately 50 written references been entered into the  
21 record?

22 MR. KIM: They are, but it's an alphabetical  
23 listing. Is that what you were getting at? It's not --

24 MR. FORCADE: The listing that begins on



1 209 --

2 MR. KIM: Yes.

3 MR. FORCADE: -- and goes to 214, have each  
4 of those documents been entered into the record?

5 MR. KIM: I think maybe to clarify, that's  
6 not the Section 10 references. Those are the references  
7 for the TSD, so just because -- it's at the end of  
8 Section 10 because that's the last section of the --  
9 there aren't -- it's not broken up by section, if that's  
10 what you're asking.

11 MR. FORCADE: Okay. If I want to try and  
12 track down what references there are that would discuss  
13 issues raised in Section 10 of the Technical Support  
14 Document, how would I do that?

15 MR. KIM: We can try and identify those.  
16 Again, we'll try and get that done overnight so that  
17 tomorrow morning -- or maybe this afternoon.

18 MR. FORCADE: Could I make that for 8, 9,  
19 and 10?

20 HEARING OFFICER TIPSORD: Ms. Bassi?

21 MS. BASSI: Mr. Ross, did anyone besides  
22 people who are employees of Illinois EPA and the expert  
23 witnesses that have been identified that Illinois EPA has  
24 retained for the development of this rule review any

1 portion of the TSD before it was submitted to the Board?

2 MR. ROSS: I'm thinking. To the best of my  
3 knowledge, one particular portion in Section 10 was  
4 reviewed by a party other than what you described.

5 MS. BASSI: And which section of -- which  
6 portion of Section 10 was that?

7 MR. ROSS: The portion regarding the  
8 Temporary Technology Based Standard.

9 MS. BASSI: In Section 10?

10 MR. ROSS: In Section 10.

11 MR. KIM: Section 10.10.

12 MS. BASSI: And who was that party?

13 MR. ROSS: The Environmental Law & Policy  
14 Center.

15 MS. BASSI: And why were they allowed to  
16 review this before it was submitted?

17 MR. ROSS: We were working with them -- or  
18 they had expressed interest and we were working with them  
19 through the stakeholder process. They had many comments  
20 and inputs on this particular portion of our rule.

21 MS. BASSI: Is it the Agency's practice to  
22 allow, if you will, inside quotes, outsiders to review a  
23 document that the Agency is presenting to the Board prior  
24 to its presentation?

1                   MR. ROSS: Practice? I don't know if I can  
2 speak to that. I know that they were stakeholders  
3 involved in the process of rule development and they had,  
4 like I said, been involved in this particular portion  
5 more than others, and through many of the meetings that  
6 we had had with them, they expressed interest in this  
7 particular portion more than others and so we shared it  
8 with them.

9                   MS. BASSI: Did you offer to share drafts of  
10 the TSD with any other groups?

11                   MR. ROSS: No, I don't believe so. We had  
12 offered -- With the other groups several times at the  
13 stakeholder meetings we had offered to meet with them, to  
14 speak with them, to conference call --

15                   MS. BASSI: Did you offer -- I'm sorry.

16                   MR. ROSS: And it was during the context of  
17 one of these meetings, conference calls, where we were  
18 specifically discussing this portion of the rule where I  
19 believe it was decided to let them see this particular  
20 portion.

21                   MS. BASSI: Are you aware of any other  
22 rulemaking in which this practice occurred, where a  
23 portion of a document that was to be submitted to the  
24 Board was shared with an, again in quotes, outside group?

1                   MR. ROSS: No, I'm not, but I have not been  
2 involved in any other rulemaking to -- so intimately as  
3 I'm involved in this one, so --

4                   MS. BASSI: We understand. And we also  
5 understand that I believe you said you started in this  
6 particular position in October of 2005?

7                   MR. ROSS: That is correct.

8                   MS. BASSI: In your work in the development  
9 of this rule and other rules that have occurred since you  
10 took this position, have you heard any -- have you had  
11 any discussion with your superiors in the Agency in this  
12 regard? And by this regard, I mean regarding the  
13 practice of sharing a draft of an Agency document to be  
14 submitted with an outside group.

15                   MR. ROSS: Well, I want to clarify. It  
16 wasn't a draft of the document. It was a draft of this  
17 particular section only in the document. And, no, I'm  
18 not aware of any other.

19                   MR. KIM: Can I -- I'm sorry. Can I ask  
20 my -- Can I take a side-bar?

21                   HEARING OFFICER TIPSORD: Sure.

22                   (Off the record.)

23                   MR. ROSS: And he reminded me of a valid  
24 point. During one of the stakeholder meetings, we did in

1 fact hand out a draft of the Section 8 of the Technical  
2 Support Document, so we did share a draft of Section 8 of  
3 the TSD with all stakeholders, including the utilities.

4 MS. BASSI: Okay. And did that occur in  
5 a -- I want to say a more public meeting --

6 MR. ROSS: Yes.

7 MS. BASSI: -- than your conversations with  
8 whoever reviewed Section 10.10?

9 MR. ROSS: A more public forum, yes.

10 MS. BASSI: Were other stakeholders invited  
11 to participate in -- notified and provided -- or invited  
12 to participate in these other stakeholder meetings that  
13 you were having?

14 MR. ROSS: To a degree. As I explained  
15 before, during the stakeholder meetings where everyone  
16 was invited, we offered to meet with any and all parties  
17 at -- I think the way we phrased it was any time anyone  
18 is willing, we will make time to meet with them to  
19 discuss portions of the rule that concern them, so the  
20 offer was outstanding, and I believe we mentioned it at  
21 each and every one of the stakeholder meetings.

22 MS. BASSI: Did you provide notice of these  
23 particular meetings that you were discussing the TSD with  
24 outside groups to the -- your stakeholder -- I want to

1 say contact list, your audience in general?

2 MR. ROSS: Did we identify to others --

3 MS. BASSI: Notify. The word is notify.

4 MR. ROSS: Okay. Notify others on what

5 meetings occurred outside of the public forum?

6 MS. BASSI: That there would be a meeting on

7 a specific date to discuss a portion of the TSD?

8 MR. ROSS: No, we made no such notification.

9 MS. BASSI: Is this a practice that the

10 Agency intends to continue in the future?

11 MR. KIM: I don't understand the relevance

12 of that. I mean, if we're talking about what led up to

13 this rule today, that's fine. If we're talking about

14 what the Agency's going to do tomorrow --

15 MS. BASSI: I'll withdraw the question.

16 HEARING OFFICER TIPSORD: Mr. Forcade?

17 MR. FORCADE: Mr. Ross, I believe you said

18 that communications with the Environmental Law & Policy

19 Center. Would that be Howard Learner's group?

20 MR. ROSS: That's correct.

21 MR. FORCADE: Who is the person you spoke

22 with there?

23 MR. ROSS: Faith Bugel.

24 MR. FORCADE: One other question. I believe

1 you stated earlier that Table 10.1 was information  
2 provided by Rebecca Stanhill?

3 MR. ROSS: Stanfield.

4 MR. FORCADE: Stanfield. Was Miss Stanfield  
5 provided a copy of Section 10.3, which includes Table  
6 10.1, prior to the submission of this document to the  
7 Board?

8 MR. ROSS: No, she was not.

9 MR. FORCADE: Was she provided any copy of  
10 the Table 10.1?

11 MR. ROSS: No, she was not.

12 MR. KIM: Your second question was prior to  
13 the submission of the TSD.

14 MR. FORCADE: Prior to the submission of the  
15 TSD.

16 MR. ROSS: The answer is no.

17 CHAIRMAN GIRARD: I have a -- one sort of  
18 hopefully final clarifying question on the use of  
19 references and outside experts. All of the specific  
20 figures we see in the TSD, whether they're dollar amounts  
21 or number of jobs, etc., do all of these very specific  
22 figures come out of the references that are listed at the  
23 back or has any of this information come in personal  
24 comments from individuals you consulted with?

1                   MR. ROSS: I believe to a large extent the  
2 former; that is, the tables and charts come from  
3 documents referenced in the back. We made -- In fact, I  
4 think we've generated some of these tables and charts  
5 from our own information, and I would have to go back and  
6 review -- a lot of the tables and charts, in particular  
7 in Section 8, those are Dr. Staudt's tables and charts,  
8 so they come from Dr. Staudt. I don't believe he  
9 provides a reference of each and every document that he  
10 took these tables from, so I don't think we've documented  
11 items to that extent, if that helps clarify things.

12                   CHAIRMAN GIRARD: Well, that helps. If  
13 Dr. Staudt is going to be here, he can be questioned  
14 about his own data and how he generated it, but what I'm  
15 concerned about is the possibility that in a phone  
16 conversation or a personal correspondence you picked up  
17 specific information and then included it in your editing  
18 process into the TSD document, and if so, we would need  
19 to have copies of either the e-mail or the personal  
20 correspondence, whatever was used as the basis for your  
21 editorial process, to put that information in the record.  
22 So if -- I would like you to, you know, if you have a  
23 chance go back and review and make sure that, you know,  
24 all the data you have in your TSD is listed -- is



1 actually in the references that you list in the back so  
2 when individuals do their follow-up research --

3 MR. ROSS: Right, and that was the intent,  
4 and we did have a staff member assigned to do just that,  
5 so I think now what you're asking is reasonable. We need  
6 to go back and verify that he did his job, which is  
7 something I don't think we have done. We just relied  
8 upon him that he did his job, so we need to go back and  
9 check.

10 CHAIRMAN GIRARD: Thank you.

11 MR. ROSS: Okay.

12 MR. RAO: Just a follow-up on Dr. Girard's  
13 question. So when you go back and check and find out  
14 what statements were taken from the individual reference  
15 documents, are you going to provide cites in your TSD so  
16 that we can also look at those documents as to where the  
17 information's coming from?

18 BOARD MEMBER JOHNSON: Citations.

19 MR. RAO: Citations in your TSD? It's very  
20 difficult right now when we're reading it to figure out,  
21 you know, where that information is coming from.

22 MR. ROSS: We can go back and evaluate to  
23 what level that needs done, and then if it's readily  
24 done, we can do it. If it's something that would take a

1 significant effort and expenditure of resources, we can  
2 still do it. It just -- the timing may be not conducive  
3 to conclude by the end of this hearing. Again, we had  
4 someone whose task it was to do just that. We need to go  
5 back and review how well he did his job. He is no longer  
6 in the Bureau of Air, so -- it would be nice if he was,  
7 but he is not, so we would have to pull someone in fresh  
8 to do this, so they would essentially be starting from  
9 scratch, and I'm kind of uncertain on the level of effort  
10 and timing in which that can be performed. This is a  
11 very, very extensive document.

12 MR. RAO: In terms of timing, when you said  
13 whether -- you're not sure whether it could be done  
14 within the time frame of this hearing, are you referring  
15 to the Springfield hearing or --

16 MR. ROSS: The Springfield hearings.

17 MR. RAO: -- both -- Okay. If that's the  
18 case, even if it takes a little bit longer and you can do  
19 it at a later time, it would be very helpful --

20 MR. ROSS: Right.

21 MR. RAO: -- to have that information.

22 MR. ROSS: Sure.

23 HEARING OFFICER TIPSORD: Mr. Forcade?

24 MR. FORCADE: Well, if it turns out that

1 that's provided at a date after the Springfield hearings  
2 and if we find no correlation between the reference cited  
3 and the number in the TSD, we would want to reserve  
4 questions at that point wanting to know where this number  
5 came from.

6 HEARING OFFICER TIPSORD: And we can address  
7 that if the material is not ready at the end of this  
8 hearing.

9 MR. ROSS: And a lot of this stuff -- and  
10 we'll get to this when we get to Section 10 -- was a  
11 compilation of information and presented in a manner  
12 where we're seeking to identify potential impacts and  
13 possible outcomes, and we characterized it that way on  
14 purpose. You know, it's a result of speaking with a  
15 number of experts and reviewing a number of documents,  
16 and we're doing this to the best of our ability in  
17 recognition that the Agency did not employ an economic  
18 expert to develop these sections and write these  
19 particular portions of the TSD. However, we felt we were  
20 under an obligation to try and gather this information  
21 and present it as best we could with the understanding  
22 that we are not experts, and so we did retain experts to  
23 assist us as best we could, but we didn't want to omit  
24 certain potential impacts of the rule solely due to the

1 fact that we were not experts ourselves. We were  
2 obligated to some degree to provide the possible and  
3 potential impacts of the rule, so we did the best we  
4 could.

5 HEARING OFFICER TIPSORD: Mr. Harrington?

6 MR. HARRINGTON: Maybe a clarifying  
7 question. Do I understand from what you've said that the  
8 Agency does not necessarily stand behind and adopt as its  
9 own position any of the conclusions in Chapter 10?

10 MR. ROSS: No, that is not what I said. We  
11 believe that conclusions in Chapter 10 are accurate --

12 MR. HARRINGTON: By that you mean --

13 MR. ROSS: -- to the best of our ability.

14 MR. HARRINGTON: By accurate, you mean  
15 there -- these are potential conclusions but not  
16 necessarily ones that flow from the rule.

17 MR. ROSS: They are potential outcomes, an  
18 attempt to forecast to provide impacts of the rule. I  
19 don't know how better to say that.

20 MR. HARRINGTON: Can you --

21 MR. ROSS: I mean, we can't guarantee these  
22 are the outcomes that would occur. I don't think anyone  
23 could when you're trying to predict or forecast the  
24 impact of a rule. We did the best we could.

1                   MR. HARRINGTON: Well, no one's questioning  
2 that. We're just trying to understand what you're  
3 saying. You say potential. Something could be potential  
4 and have a 10 percent chance of being true or there could  
5 be a 90 percent chance of being true if you look at it in  
6 a numerical sense.

7                   MR. ROSS: Correct.

8                   MR. HARRINGTON: And what I'm hearing from  
9 you, you can't assign to any of these conclusions whether  
10 it's a 10 percent likelihood or a 90 percent likelihood.

11                   MR. ROSS: Well, I'm going to invoke my  
12 ability to defer. We did ask our economic expert to  
13 review all of this, all of Section 10, all of the IPM  
14 modeling, and I believe he will be able to speak to how  
15 accurate or how good of a job we did in forecasting or  
16 predicting in some of the conclusions we've reached, to  
17 the extent that we've reached conclusions, which I  
18 believe it is extremely hard to do to reach conclusions  
19 when you're attempting to forecast and predict the impact  
20 of a rule. I think the way we've characterized that is  
21 we stated potential impacts and outcomes.

22                   MR. HARRINGTON: Thank you.

23                   HEARING OFFICER TIPSORD: Okay. And so  
24 we're going to defer Kincaid's 11 through 19? Or 20?

1 I'm sorry.

2 MR. ROSS: Yes, I believe so.

3 MR. ZABEL: Madam Hearing Officer?

4 HEARING OFFICER TIPSORD: Yes, Mr. Zabel.

5 MR. ZABEL: If -- I will defer to  
6 Mr. Forcade on this, but who's the witness who's going to  
7 ask -- answer 17 through 20? We're not having an ICF  
8 witness.

9 MR. ROSS: Well, I do want to mention that  
10 we asked ICF to testify. We discussed testifying with  
11 them. They were reluctant. They stated that they have  
12 industry clients as well as agency regulatory bodies.  
13 They were also extremely expensive, and so after  
14 discussing it with them, the decision was made that --  
15 and based upon their reluctance, the decision was made  
16 not to have them testify, but your question 17 --

17 MR. ZABEL: Well, I think 17, 18, 19 and 20,  
18 but as I say, I'll defer to Mr. Forcade on this.

19 MR. ROSS: Well, I mean, I can answer these  
20 now, but we will be discussing Section 9 --

21 MR. KIM: Well, I think -- I thought  
22 Mr. Zabel's question was really who was it that's going  
23 to answer these questions, not what was the answer  
24 itself. I -- Correct me if I'm wrong.

1                   MR. ZABEL: Yeah. I'm curious if we have  
2 someone -- I mean, we're deferring 10 or 11 forward, and  
3 I -- these seem to me to be -- none of your expert  
4 witnesses are going to address the ICF report.

5                   MR. KIM: No, and again, as we stated  
6 before, Mr. Ross will be here at the same time that  
7 either Dr. Hausman or Dr. Staudt will be here, so the  
8 problem is, you know, Mr. Ross can probably answer some  
9 of these right now, but then there's that inevitable,  
10 well, let me ask -- you know, we want to try and take  
11 care of it with all people here at the same time.

12                   MR. ZABEL: I just didn't want to lose him.

13                   MR. KIM: No, no.

14                   HEARING OFFICER TIPSORD: They're on my  
15 list.

16                   MR. KIM: Unfortunately for him, he's not  
17 going anywhere.

18                   MR. ROSS: Yeah, I will be providing the  
19 answers for them.

20                   MR. ZABEL: That's fine. Whenever.

21                   MR. ROSS: Okay.

22                   HEARING OFFICER TIPSORD: Ameren, right?

23                   MR. ROSS: I can go to Ameren, or --

24                   HEARING OFFICER TIPSORD: Yeah, let's try

1 and get a few of those knocked off before we break for  
2 lunch, at least the first couple.

3 MR. ROSS: Well, in particular, question 1  
4 says for each witness, so I can only speak for Jim Ross,  
5 and if it's appropriate, instead of having each witness  
6 parade up here perhaps to answer the question, we can  
7 provide maybe written answers from the remaining  
8 witnesses? Is that possible? If they --

9 HEARING OFFICER TIPSORD: As to their  
10 background and researching the areas of the fate of  
11 mercury on the environment and health and environmental  
12 impacts of mercury contamination?

13 MR. ROSS: Yeah. I can read the question.  
14 Question 1, "For all witnesses, please describe your  
15 personal background in researching the areas of the fate  
16 of mercury on the environment and health and  
17 environmental impacts of mercury contamination." Jim  
18 Ross, I have been with the Bureau of Air at Illinois EPA  
19 for over 18 years. During that period, I have  
20 encountered mercury emissions from a variety of sources,  
21 including hazardous waste incinerators, medical waste  
22 incinerators and of course coal-fired power plants. In  
23 working on the permitting of these sources, I was  
24 involved in estimating the emissions of mercury to the



1 atmosphere. More recently I was involved in a review of  
2 the Title V permit application for the Onyx hazardous  
3 waste incinerator in Sauget, Illinois. During the review  
4 process, the Illinois EPA worked with the USEPA in  
5 assessing the hazardous emissions from the operations of  
6 that product, which include an assessment of mercury  
7 emissions and their potential for harmful impacts on  
8 public health and the environment, and since October of  
9 2005 to the present I have been involved in researching,  
10 reviewing, discussing, presenting and studying mercury  
11 emissions and the health and environmental impacts of  
12 mercury contamination specifically from Illinois  
13 coal-fired power plants.

14 Question 2.

15 HEARING OFFICER TIPSORD: Mr. Harrington?

16 MR. HARRINGTON: With respect to health and  
17 environmental impacts, is your Technical Support  
18 Document -- are you relying primarily on Dr. Rice's  
19 testimony?

20 MR. ROSS: Yes, I think it's accurate to say  
21 that we are relying primarily on Dr. Rice's testimony.

22 MR. HARRINGTON: And the material she  
23 referred to during her testimony?

24 MR. ROSS: Correct.

1 MR. HARRINGTON: Not any independent  
2 expertise of your own; is that correct?

3 MR. ROSS: Yes, for the most part, that is  
4 correct. I mean, I would hate to characterize it that  
5 we're relying solely on Dr. Rice. We had staff review  
6 documents and do researches, speak with experts. Similar  
7 to what I've described what we've done for other  
8 portions, segments of the Technical Support Document, we  
9 did similar activities for the health impacts of mercury.

10 HEARING OFFICER TIPSORD: And I would note  
11 for the record, Mr. Harrington, that's your question  
12 number 5.

13 MR. HARRINGTON: Yes, it is.

14 MR. ROSS: Question 2, "Is it correct that  
15 Illinois EPA is relying upon the services of Dr. Gerald  
16 Keeler to discuss mercury deposition and to provide  
17 technical information on these issues?" And it goes on  
18 to say, "Is it not correct that either you nor the Agency  
19 personnel have any personal expertise in these areas of  
20 deposition?" And we tackled that to some degree on my  
21 first day of testimony, my level of expertise in these  
22 areas, but Dr. Keeler was retained by the Agency for the  
23 purposes stated, and none of the Agency personnel are as  
24 familiar with mercury deposition as Dr. Keeler. However,

1 Marcia Willhite did participate in the development of the  
2 Technical Support Document in these areas and also  
3 provided testimony.

4 HEARING OFFICER TIPSORD: Ms. Bassi?

5 MS. BASSI: This is a procedural question.  
6 What about the other people that Ameren has identified in  
7 these particular questions? Will we be going back for  
8 Mr. Kaleel, Mr. Romaine and Mr. Sprague to answer these  
9 same questions?

10 HEARING OFFICER TIPSORD: I believe  
11 Mr. Sprague answered this question when he testified as  
12 to what his expertise was, and I would assume that each  
13 of them will be asked the question when they're -- when  
14 they testify.

15 MS. BASSI: Okay. So there will be a panel  
16 eventually of these folks?

17 HEARING OFFICER TIPSORD: Well, I think that  
18 Mr. Sprague did answer what his expertise was when he  
19 testified.

20 MS. BASSI: Right.

21 HEARING OFFICER TIPSORD: I would assume  
22 that when Mr. Romaine comes up he will tell us what his  
23 expertise and background is at that point, but the Agency  
24 also said that they could provide in writing that

1 information because Mr. Ross could only answer as to  
2 Mr. Ross. If you would like them to provide in writing  
3 the expertise, the answer to question number 1 --

4 MS. BASSI: No, I'm not interested in seeing  
5 it in writing. I think that we lose the opportunity to  
6 cross-examine on it if it's in writing. I guess my  
7 question is, the way these -- and these aren't my  
8 questions, but the way these questions are presented, it  
9 assumes, I assume, that these four people would be able  
10 to answer these questions so that the right people are  
11 answering the right questions, and I agree that --

12 HEARING OFFICER TIPSORD: Are you asking --  
13 May I ask a procedural question?

14 MS. BASSI: Yes.

15 HEARING OFFICER TIPSORD: These are Ameren's  
16 questions for IEPA witnesses Kaleel, Romaine, Ross and  
17 Sprague, so are you saying that you want all four of them  
18 up here to answer all of Ameren's questions? Is that  
19 what you're looking for?

20 MS. BASSI: That's what I anticipated,  
21 but --

22 HEARING OFFICER TIPSORD: I thought they  
23 would direct them to who they needed to direct them to.  
24 Mr. Harrington, they're your questions.

1 MS. BASSI: Yeah.

2 MR. HARRINGTON: I thought it was likely  
3 there would be a panel -- that's why I formed them this  
4 way -- but if the individual witnesses can give a  
5 brief -- the same brief answers that Mr. Ross did as to  
6 their own expertise, I think when they then go into --  
7 one, I can limit my questions to them to those things  
8 with which they're familiar until it informs the Board of  
9 what reliance should be placed on each type of witness.  
10 It can be done individually or as a panel. You know,  
11 it's up to the Agency to figure out how they want to  
12 present their witnesses.

13 HEARING OFFICER TIPSORD: Well, let me ask a  
14 further clarifying question, then. For example, number  
15 2, "Is it correct that the Illinois EPA," are you  
16 comfortable with only Mr. Ross answering that question or  
17 do you want --

18 MR. HARRINGTON: No, I think in this case  
19 Mr. Ross can answer that. If he answers it, I assume he  
20 answers for the Agency, and I don't think anyone else has  
21 to answer that particular question.

22 MR. KIM: And our expectation was if some of  
23 these questions should have been answered, for example,  
24 by -- if the best person situated was Jeff Sprague or

1 Chris Romaine or what have you, then we attempted to  
2 have -- well, the only person aside from Mr. Ross that's  
3 come up so far --

4 HEARING OFFICER TIPSORD: You know what?  
5 Let's put -- Let's break for lunch, bring them all back  
6 at once, and let's just do these questions all at once,  
7 okay, if we can. Let's bring them all back after lunch.  
8 They all work here at the Agency. I assume you can bring  
9 them all back after lunch.

10 MR. KIM: Yeah.

11 HEARING OFFICER TIPSORD: All right. Let's  
12 break for lunch.

13 (One-hour lunch recess taken)

14 HEARING OFFICER TIPSORD: I think we're  
15 ready to go back on the record, and at this time I notice  
16 that we've been joined by Jeffrey Sprague, who's been  
17 sworn in --

18 MR. SPRAGUE: I have.

19 HEARING OFFICER TIPSORD: -- and Chris  
20 Romaine. Good to see you again, Chris. And I assume you  
21 are Robert Kaleel?

22 MR. KALEEL: Yes.

23 HEARING OFFICER TIPSORD: Could we have  
24 Mr. Romaine and Mr. Kaleel sworn in, please?

1 (Witnesses sworn.)

2 HEARING OFFICER TIPSORD: Thank you. Okay.

3 MR. KIM: And just for clarification,  
4 obviously, in accordance with your request, we have, you  
5 know, a sort of panel here. I still have Mr. Ross as the  
6 primary responder. To the extent that something -- one  
7 of the questions that's been posed by Ameren is not --  
8 cannot be answered by him or it's not going to be  
9 deferred, then we can try and have, you know, one of the  
10 other witnesses answer, but were you intending to poll  
11 each witness on each question or is one answer sufficient  
12 as long as we're speaking for the Agency?

13 HEARING OFFICER TIPSORD: If they're  
14 speaking for the Agency, I assume that it's all right  
15 with Ameren. We'll address that as we go along.

16 MR. KIM: Okay.

17 HEARING OFFICER TIPSORD: It would be my  
18 intent that if it's for the Agency, if Jim Ross is going  
19 to handle it, then he would handle it. If there's  
20 follow-up, we can direct it to whomever.

21 MR. HARRINGTON: The only caveat to that is,  
22 you know, if somebody's referenced as being the expert on  
23 which the testimony's based, then we want the person  
24 whoever -- and if more than one person is represented as

1 being an expert on some subject, then we'll want to be  
2 able to follow up with them.

3 HEARING OFFICER TIPSORD: Certainly, but be  
4 that as it may, we did have the request for background  
5 with question number 1, so if we could have -- I believe  
6 Mr. Sprague addressed that when he testified already.

7 MR. HARRINGTON: Yes.

8 HEARING OFFICER TIPSORD: So we need  
9 Mr. Kaleel and Mr. Romaine.

10 MR. KIM: Yeah, we'll do that first. Just  
11 read question number 1.

12 HEARING OFFICER TIPSORD: You know what?  
13 That microphone comes off. You may want to just -- And  
14 that one's highly directional, so they'll have to speak  
15 right into it. Okay.

16 MR. KALEEL: Okay. Question number 1 is,  
17 "For all witnesses, please describe your personal  
18 background in researching the areas of the fate of  
19 mercury on the environment and health and environmental  
20 impacts of mercury contamination." My job is -- with the  
21 Illinois EPA, the Bureau of Air, is as the manager of the  
22 Air Quality Planning Section. I have about 30 years of  
23 experience in air pollution control, most of that in the  
24 area of air quality modeling. We've not focused a great



1 deal of effort on modeling of atmospheric mercury  
2 throughout most of my career. We have had some  
3 involvement -- I personally have had some involvement  
4 through my association with the Lake Michigan Air  
5 Directors Consortium. Beginning in about 2001, I  
6 believe, the State of Wisconsin was interested in  
7 pursuing mercury modeling and they brought that to the  
8 attention of the project team of which I'm a member, and  
9 they reported on a frequent basis on the status of their  
10 model development efforts to support a rule in Wisconsin,  
11 so I guess my background largely stems from that  
12 association and some of the work that was initiated by  
13 the State of Wisconsin. Don't have a lot of additional  
14 experience in this area beyond efforts to support this  
15 rulemaking; some additional reading and literature  
16 research that I have performed in this position.

17 HEARING OFFICER TIPSORD: Thank you,  
18 Mr. Kaleel. Mr. Romaine, you don't need to read the  
19 question again. It's the same question. We'll just --

20 MR. ROMAINE: My primary activity in the  
21 Agency is involved in permitting of sources. My  
22 investigation into the fate of mercury on the environment  
23 and health and environmental impacts of mercury  
24 contamination has been incidental permitting of existing

1 sources and proposed projects as necessary to respond to  
2 concerns expressed by the public during those permitting  
3 activities, so it's been very directed at specific  
4 comments from the public and has not been a broad  
5 investigation of environmental -- health and  
6 environmental impacts of mercury contamination.

7 HEARING OFFICER TIPSORD: And then I believe  
8 we had gotten to question number 5. Are there any of  
9 those remaining questions that anyone would like  
10 Mr. Sprague, Mr. Kaleel or Mr. Romaine to additionally  
11 address?

12 MR. HARRINGTON: I think if we could quickly  
13 go through -- or maybe we can assume -- if I could run  
14 through them, maybe we could get them done quickly.  
15 Basically, is --

16 HEARING OFFICER TIPSORD: You need to use  
17 the microphone, Mr. Harrington. We're losing you.

18 MR. HARRINGTON: Sorry. Has any member of  
19 the panel actually conducted studies in mercury  
20 deposition?

21 MR. ROMAINE: I have not.

22 MR. KALEEL: I have not.

23 MR. SPRAGUE: And I have not.

24 MR. HARRINGTON: Mr. Kaleel, I understand

1 that your expertise is in modeling and air quality  
2 planning; is that correct?

3 MR. KALEEL: Yes, it is.

4 MR. HARRINGTON: Has your -- Have you or  
5 your team attempted to do any modeling with respect to  
6 mercury in Illinois?

7 MR. KALEEL: We have not tried to perform  
8 any modeling within my section. I was involved to a  
9 certain extent in some of the modeling efforts that  
10 Marcia Willhite described last week in terms of the  
11 Bureau of Water's effort to retain an expert for the  
12 purposes of modeling.

13 MR. ROMAINE: I think you stated that too  
14 broadly. Has any of your staff been involved in modeling  
15 of mercury associated with power plants?

16 MR. KALEEL: I might defer that to Jeff  
17 Sprague. There have been some efforts to model in the  
18 context of individual power plant emissions and new power  
19 plants. It's not the kind of deposition modeling that I  
20 was thinking of at the time that you asked the question.

21 MR. HARRINGTON: Was any of that modeling  
22 relevant to this rulemaking in your opinion?

23 MR. KALEEL: I guess I didn't consider it.  
24 Maybe that's why I answered the questions --

1 MR. HARRINGTON: Thank you.

2 MR. KALEEL: -- as quickly as I did.

3 MR. HARRINGTON: Has any member of the panel  
4 conducted any independent research with respect to  
5 environmental and health impacts of mercury?

6 MR. KALEEL: I have not performed any  
7 independent research.

8 MR. ROMAINE: I have not performed any  
9 independent research.

10 MR. SPRAGUE: And I haven't conducted any  
11 independent research.

12 MR. ROSS: It's dependent on how you qualify  
13 independent research. I have reviewed documents, spoken  
14 with experts.

15 MR. HARRINGTON: I believe you did outline  
16 that in the past. Thank you. Why don't we move on as to  
17 the numbered questions and we'll see how it works.

18 HEARING OFFICER TIPSORD: Okay. Question  
19 number 6.

20 MR. ROSS: "For each witness, what portions  
21 of the Technical Support Document did you personally  
22 participate in preparing?" And I was involved in several  
23 of the TSD sections, especially Sections 7, 9 and 10.

24 HEARING OFFICER TIPSORD: Mr. Kaleel,

1 Technical Support Document?

2 MR. KALEEL: I was involved with the  
3 preparation of Section 5.1 of the Technical Support  
4 Document. I think that section's entitled "Mercury in  
5 the Atmosphere." I also had a role reviewing other  
6 portions of the document but not a primary role in  
7 preparing it.

8 HEARING OFFICER TIPSORD: Mr. Sprague?

9 MR. SPRAGUE: I'm sorry. Which question was  
10 this?

11 HEARING OFFICER TIPSORD: The Technical  
12 Support Document, what parts of it you helped prepare.

13 MR. SPRAGUE: Oh. I prepared Section 3.0.

14 HEARING OFFICER TIPSORD: And Mr. Romaine?

15 MR. ROMAINE: I assisted in the preparation  
16 of Sections 7, 8 and 10. For a lot of that my role was  
17 simply as a reviewer of those portions of the document.

18 HEARING OFFICER TIPSORD: Thank you. You  
19 know what? It might be easier -- Mr. Kim, is there a  
20 particular reason you have them sitting behind you? It's  
21 a little hard to both see them and --

22 MR. KIM: I was anticipating they wouldn't  
23 have to do a lot of talking, but we can have them slide  
24 up.

1 HEARING OFFICER TIPSORD: It might be easier  
2 for all concerned.

3 MR. KIM: I guessed wrong, obviously.

4 MR. ROSS: Question 7, "With respect to  
5 Section 5 of the TSD, how did Illinois EPA come to the  
6 conclusion that the reduction in mercury emissions  
7 proposed by the rule will result in significant  
8 reductions of mercury deposition and methylmercury levels  
9 in waters and fish in Illinois?" And I believe that  
10 question was posed to and answered in detail by both  
11 Dr. Keeler and Marcia Willhite.

12 MR. HARRINGTON: Does that suggest that the  
13 members of the air panel that are here today did not  
14 participate significantly in that decision?

15 MR. ROSS: I'd say that's a good assessment,  
16 that's correct.

17 MR. HARRINGTON: Thank you.

18 HEARING OFFICER TIPSORD: Question number 8?

19 MR. ROSS: "Did Illinois EPA come to an  
20 independent conclusion as to what the reduction in the  
21 deposition of mercury will be if the rule as proposed is  
22 fully implemented?" The Agency simply concluded that  
23 significantly reducing mercury emissions will result in a  
24 corresponding reduction in mercury deposition, and I

1 believe again that Dr. Keeler and Marcia Willhite  
2 addressed this in detail.

3 HEARING OFFICER TIPSORD: Ms. Bassi?

4 MS. BASSI: I'm sorry. Perhaps you could  
5 refresh my memory on this a bit. So basically, you  
6 believe -- if I am phrasing this incorrectly, this is the  
7 question. Your supposition is that a 90 percent  
8 reduction in emissions of mercury from power plants will  
9 result in a 90 percent reduction in deposition in  
10 Illinois from those power plants; is that correct?

11 MR. ROSS: That's not correct. I believe  
12 Marcia Willhite made that statement, but it was made in  
13 the context of really what she referred to as "water  
14 world" in that she uses that assessment or will need to  
15 use that assessment in dealing with water issues such as  
16 the TMDL and she has to develop an implementation plan to  
17 reach certain levels, so I believe she made that  
18 statement and attempted to clarify it in that context.

19 MS. BASSI: Thank you.

20 HEARING OFFICER TIPSORD: Mr. Forcade?

21 MR. FORCADE: Would you be able to say if  
22 you have a 50 percent reduction, would you expect the  
23 reduction in methylmercury in the waters to be greater or  
24 less? I think you used the word related reduction, or

1 how would you describe the reduction?

2 MR. ROSS: A corresponding reduction.

3 MR. FORCADE: Corresponding.

4 MR. ROSS: So you -- obviously you seek to  
5 reduce the source of these emissions and you would expect  
6 to see a corresponding reduction in the methylmercury  
7 levels in fish, which the studies in Florida and  
8 Massachusetts have borne out and which Dr. Keeler's  
9 research has addressed, and we have not attempted to  
10 quantify that. We've gone over that in some level of  
11 detail. I also addressed that on my first day, and I  
12 think that Marcia and Dr. Keeler addressed that at  
13 length.

14 HEARING OFFICER TIPSORD: Mr. Harrington?

15 MR. HARRINGTON: For efficiency's sake, may  
16 we assume that if no other Agency witness on this panel  
17 adds or clarifies anything that they have nothing further  
18 to add personally?

19 HEARING OFFICER TIPSORD: Excellent point.  
20 Excellent point.

21 MR. HARRINGTON: We can just move forward,  
22 then. Why don't we proceed.

23 MR. ROSS: Question 9, "How did you come to  
24 that conclusion?" I believe we've addressed that also.



1           Section 10, "Are you aware of EPA and EPRI  
2 modeling studies that show that mercury from coal-fired  
3 power plants within the state probably contribute  
4 relatively little on average of the total mercury  
5 deposited in the state?" And yes, I am aware of it, and  
6 that was one area where we specifically asked Dr. Keeler  
7 to look at and discuss, and he did address it in his  
8 testimony.

9           MR. HARRINGTON: Specifically the EPA and  
10 EPRI studies?

11           MR. ROSS: Yes, he did. That was discussed  
12 when Dr. Keeler was here. He did discuss that model.

13           MR. HARRINGTON: I believe he discussed the  
14 model but not the conclusions with respect to Illinois.  
15 Are you aware -- Unless my memory is failing me on this  
16 point.

17           MR. ROSS: I believe he did, but I'm not  
18 certain. I believe he said that the modeling showed that  
19 there were no identified hot spots, so to say, except  
20 potentially around the Chicago area, and I don't want to  
21 put words in his mouth, but I had noted in my notes that  
22 that was discussed.

23           MR. HARRINGTON: Thank you very much.

24           MR. ROSS: Question 11, "Are you aware of

1 any studies demonstrating that mercury in the atmosphere  
2 or deposited in the ground other than methylmercury in  
3 fish has a direct impact on human health?" And this  
4 question I believe needs clarified in that the mercury in  
5 question is limited to that originating from coal-fired  
6 power plants, and if that is the case, then, no, I am not  
7 aware of any studies demonstrating that mercury  
8 originating from coal-fired power plants other than that  
9 deposited in the ground or in the atmosphere has a direct  
10 impact on human health.

11 MR. HARRINGTON: I think the way you  
12 restated that at the end may have come out with a double  
13 negative, so let me just try to clarify this. You are  
14 not aware of any studies showing that mercury from power  
15 plants other than that which becomes methylmercury in  
16 fish has any impact on public health; is that correct?

17 MR. ROSS: That's correct, I am not aware of  
18 any studies.

19 MR. HARRINGTON: Thank you.

20 HEARING OFFICER TIPSORD: Question 12.

21 MR. ROSS: Question 12, "Do you agree that  
22 the only impact of mercury in the environment that has  
23 been identified in the studies and literature is through  
24 the consumption of fish and other marine life impacted by

1 methylmercury?" Again, assuming that the mercury in  
2 question is that originating from coal-fired power  
3 plants, then no, I am not aware of any studies.

4 MR. HARRINGTON: Could you please explain  
5 the qualification that you gave in the last two  
6 questions?

7 MR. ROSS: Well, mercury is a health issue  
8 and does have impacts in areas other than coal-fired  
9 power plants or methylmercury in fish. Mercury has been  
10 identified as a toxic pollutant that if you ingest it  
11 through the drinking of contaminated water, inhalation, I  
12 think it was also spoken about a dentist coming into  
13 contact with mercury vapors, that there's health issues,  
14 so there's other mercury health issues and impacts other  
15 than what we are addressing with this rulemaking and  
16 discussing in this hearing.

17 MR. HARRINGTON: Those are a result of -- in  
18 general of mercury in large concentrations rather than  
19 the atmospheric type of mercury from power plants; is  
20 that correct?

21 MR. ROSS: I believe that's correct, but I'm  
22 not an expert in that area.

23 MR. HARRINGTON: Thank you.

24 MR. ROSS: 13, "Do you agree that the

1 purpose of the Illinois rule is to attempt to reduce the  
2 methylmercury content in fish in Illinois?" And yes, I  
3 agree with that. Also, we need to satisfy CAMR and the  
4 USEPA, so that is another purpose of the Illinois rule.

5 14, "Has the Illinois EPA or anyone else to your  
6 knowledge conducted any studies to determine the direct  
7 impact of mercury emissions from Illinois coal-fired  
8 electrical generating units upon waters in the state of  
9 Illinois?" And I believe that this was discussed in  
10 detail by Marcia Willhite and Dr. Keeler.

11 MR. HARRINGTON: I believe the answer was  
12 no, you're not aware of any such studies directly in  
13 Illinois?

14 MR. ROSS: I believe the answer that was  
15 provided was that they began such studies, Marcia, but  
16 she -- they did not complete the studies. She said she  
17 pulled the plug, I believe was how she characterized it.

18 MR. HARRINGTON: Thank you.

19 MR. ROSS: 15, "If so, please describe the  
20 study and its conclusion." Not applicable. Well,  
21 actually, I just answered that.

22 16, "To your knowledge, has anyone done a  
23 measurement of the mercury deposition within the state of  
24 Illinois and attempted to trace it to any particular

1 source?" And to my knowledge, no, they have not. "If  
2 so, please describe the study and its conclusion." I  
3 answered in the negative, so it's not applicable.

4 18, "Has Illinois EPA conducted any independent  
5 review or study of the availability of mercury control  
6 technologies for EGUs other than that prepared by  
7 Dr. Staudt?" And yes, we have. "If so, please describe  
8 that study and its conclusion." I addressed this several  
9 times, but we reviewed existing studies on the subject,  
10 consulted with other parties, including other agencies  
11 and experts, contacted several vendors of mercury control  
12 devices. At least one of those vendors will be  
13 testifying here. We also spoke with Praveen Amar of  
14 NESCAUM. So we did do our own research and came to our  
15 own conclusions prior to retaining Dr. Staudt.

16 HEARING OFFICER TIPSORD: Go ahead,  
17 Mr. Zabel.

18 MR. ROSS: The conclusion --

19 MR. ZABEL: Just to follow up, Mr. Ross,  
20 when you refer to studies such as you just described,  
21 you're talking about desktop studies?

22 MR. ROSS: Define desktop studies.

23 MR. ZABEL: Through a literature search.  
24 Let me rephrase the question. Did the Agency do any

1 fieldwork?

2 MR. ROSS: Define fieldwork.

3 MR. ZABEL: Sure. Did you do any actual  
4 physical experimentation on the technology?

5 MR. ROSS: No, we did not.

6 MR. ZABEL: Did you fund any such?

7 MR. ROSS: No, we did not.

8 MR. HARRINGTON: And the literature that you  
9 referred to and relied on, is that all listed in the  
10 Technical Support Document?

11 MR. ROSS: I believe so, yes.

12 HEARING OFFICER TIPSORD: Mr. Zabel?

13 MR. ZABEL: Are the persons with whom you  
14 had discussions listed in the TSD in any fashion?

15 MR. ROSS: I don't believe we attempt to  
16 list the names of everyone that we discussed this issue  
17 with. However, several of them will be testifying. I'm  
18 sure Section 8 will --

19 MR. HARRINGTON: If I may.

20 HEARING OFFICER TIPSORD: Mr. Harrington?

21 MR. HARRINGTON: Have -- Other than those  
22 who are testifying, did any of the people with whom you  
23 discussed this matter provide you information independent  
24 of what's in the documents that you relied on to reach a

1 conclusion that these -- as to the technical feasibility  
2 of the rule?

3 MR. ROSS: I would say to some degree, yes,  
4 many of the people -- I mean, when you have conversations  
5 with experts, it helps to form your opinion, and it  
6 certainly impacted the conclusions we made.

7 MR. HARRINGTON: Could you tell us who these  
8 experts were that are not referenced in the documents and  
9 who are not testifying?

10 MR. ROSS: I can attempt to recall their  
11 names. There was Praveen Amar. There was Mike Durham,  
12 who was with ADA-ES. He is a pollution control vendor.  
13 Vince Hellwig of Michigan. He -- I believe he's the  
14 director of Michigan's air program, and that was  
15 critical, because the Michigan utility report was a  
16 document that we -- it is referenced in the Technical  
17 Support Document and we did rely on it to some degree. I  
18 would probably have to go back and review my notes, but  
19 those are the ones that pop out in my mind.

20 MR. HARRINGTON: Did any of those people  
21 provide you with information that resulted in any  
22 different conclusions than that that Dr. Staudt will  
23 testify to?

24 MR. ROSS: I mean, that's a subjective

1 question. To the best of my ability, their conclusions  
2 were not significantly different than the conclusions  
3 reached by Dr. Staudt in our Technical Support Document.

4 MR. HARRINGTON: Did any of those people you  
5 consulted with independently conclude that it was  
6 technically feasible to achieve a 90 percent reduction of  
7 mercury through the addition of activated carbon or  
8 halogenated activated carbon alone prior to the existing  
9 ESPs on Powder River Basin coal?

10 MR. ROSS: We discussed that issue with  
11 them. I believe some of them expressed that it could be  
12 done. There were concerns expressed. We sought to  
13 address those concerns by providing flexibility in the  
14 rule. That was one of the lessons taken away from  
15 speaking with the experts, that any rule that was crafted  
16 needed to have some flexibility built into it for  
17 compliance, and so that was one of our guiding factors in  
18 seeking to make the rule flexible.

19 MR. HARRINGTON: Did any of them indicate to  
20 you confidence that a 75 percent removal could be  
21 achieved on the type of power plants in Illinois burning  
22 sub-bituminous coal?

23 MR. ROSS: You know, the way you're framing  
24 the question is did we -- at the time we were consulting



1 with them, we didn't have a rule developed. We didn't  
2 have the rule parameters set out, so it's not like when  
3 we talked with them that -- did we say, 75 percent, as  
4 our rule requires, is that achievable. That particular  
5 question was not posed to them. Like, Mike Durham, he  
6 has done many presentations. Praveen Amar, he helped  
7 draft the STAPPA/ALAPCO model rule in which they suggest  
8 that a 90 to 95 percent mercury reduction level is  
9 achievable. So just based on that, I can't recall the  
10 specifics of all of our conversation, but you're probably  
11 going to -- you know, if you would ask them today, I  
12 would assume Praveen Amar would say 90 percent is  
13 achievable since he helped draft the STAPPA/ALAPCO rule  
14 and they in fact suggest that states require 90 to 95  
15 percent. They give a range. I know Mike Durham, who is  
16 the vendor, has said that any rule needs to have a soft  
17 landing provision in it, any aggressive rule like  
18 Illinois'. I think he would -- and I hate speaking for  
19 him and he won't be testifying here, but I've seen his  
20 presentations where he says a rule needs flexibility and  
21 a soft landing. And Sid Nelson, who will be speaking  
22 here, is a vendor comparable to Mike Durham, and he would  
23 be able to -- I mean, you can ask some of these questions  
24 directly to a vendor of halogenated ACI systems.

1                   MR. HARRINGTON: I appreciate that, and  
2 that's why I was limiting it to those who wouldn't be  
3 testifying here as to --

4                   MR. ROSS: Right. I understand.

5                   MR. HARRINGTON: -- what information the  
6 Agency may have relied on.

7                   HEARING OFFICER TIPSORD: Mr. Zabel?

8                   MR. ZABEL: Just so the record's clear,  
9 Mr. Ross, when you say achievable, we're talking strictly  
10 about a 90 percent standard with ACI or halogenated ACI;  
11 not with scrubbers, not with SCRs, not with baghouses,  
12 just the carbon injection, halogenated or otherwise.

13                   MR. ROSS: No, I was not limiting my  
14 comments to that. There are many options to comply with  
15 the rule. That is simply one option, is the installation  
16 of halogenated ACI, and technically, you don't need to  
17 reach 90 percent on each and every unit. The rule has  
18 some flexibility provisions built into it; namely, the  
19 averaging provisions where one unit can overcontrol,  
20 which allows another unit to undercontrol such that the  
21 average is 90 percent. So each and every unit does not  
22 need to achieve 90 percent. And also, with the recent  
23 amendment to the rule, there is the Temporary Technology  
24 Based Standard which also allows me to say that each and

1 every unit does not have to reach 90 percent. And it's  
2 not only 90 percent. The rule has flexibility where you  
3 can choose to comply with either 90 percent or an  
4 output-based limit, and that limit is 0.008 pounds of  
5 mercury per gigawatt hour, so -- and you can average to  
6 achieve that standard too, so in essence, there's two  
7 standards to the rule. There's not -- I mean, we're  
8 quantifying everything or we're saying that it's 90  
9 percent, but it's not only 90 percent. I want to make  
10 that clear, that the rule is flexible on this, either 90  
11 percent or an output-based standard.

12 MR. ZABEL: Well, maybe my question was a  
13 little misunderstood, Mr. Ross. When you say that a  
14 standard is achievable, what I'm really concerned about,  
15 are we talking about within the economic parameters that  
16 the Agency studied, which didn't include scrubbers, which  
17 didn't include SCRs, which didn't include, with a couple  
18 of exceptions, baghouses, or do you mean achievable under  
19 any combination of hardware and operational controls?

20 MR. ROSS: I think our study did include  
21 some of those. I mean, some units we -- and we'll get  
22 into this when we get into Section 8 and Dr. Staudt has  
23 gone unit by unit, but some of those units we believe  
24 have to do little or nothing in this state. Many --

1 You're absolutely right, the broad number of units we  
2 believe can comply with halogenated ACI to achieve  
3 compliance with the rule. Now, compliance with the rule  
4 doesn't -- what I'm trying to emphasize here, compliance  
5 with the rule doesn't necessitate a 90 percent reduction.  
6 There's flexibility in the rule where compliance with the  
7 rule could be, as I mentioned, overcontrol of one unit,  
8 undercontrol of another such that the average is 90  
9 percent or the average is 0.008 pounds per gigawatt hour.  
10 So there's -- there is some flexibility, I want to  
11 emphasize, in the rule, but again, when we go down each  
12 and every unit, which I think we're going to with Section  
13 8, you'll see that we're not talking about halogenated  
14 ACI for each and every unit.

15 MR. ZABEL: So when you use the term  
16 achievable, there is some method by which every unit  
17 could achieve the standard, whichever measurement is  
18 used.

19 MR. ROSS: That's correct.

20 MR. ZABEL: Okay. And when you talk about  
21 flexibility, which you've mentioned several times, let me  
22 give you an example to see if I understand what you mean  
23 by the flexibility of averaging in the rule. A  
24 two-unit -- this could be a plant or a system. I think

1 Phase I is system-wide, Phase II is plant-wide; is that  
2 correct?

3 MR. ROSS: That's correct.

4 MR. ZABEL: You have two units. One makes  
5 the 75 percent. What's the -- And they're identical  
6 units. Assume everything is absolutely identical. To  
7 make the 90 percent average, what's the percentage  
8 removal the other one's got to meet?

9 MR. ROSS: That's a number crunching  
10 exercise. I mean, we could --

11 MR. ZABEL: It's 105 percent, isn't it,  
12 Mr. Ross?

13 HEARING OFFICER TIPSORD: Mr. Zabel, let's  
14 let him finish.

15 MR. ZABEL: I'm sorry.

16 MR. ROSS: Well, we've looked at that and  
17 done the number crunching.

18 MR. ZABEL: Well, I've given you all the  
19 assumptions I think you need. The units are absolutely  
20 identical in size, emissions, fuel, any parameter you  
21 want to assume, except one meets 75 percent. For them to  
22 average 90, what's the other one got to meet?

23 MR. ROSS: I need a calculator. That's what  
24 I need.

1                   MR. KIM:  If this is just a math question, I  
2 mean, what is it?  105?

3                   MR. ZABEL:  It's 105 percent, is it not?  
4 Mr. Romaine may answer if he wishes.

5                   MR. ROMAINE:  Well, I assume your -- the  
6 question is flawed, because if the two units are  
7 identical, they should be keeping identical mercury  
8 control.

9                   MR. ZABEL:  They should be if they installed  
10 the same hardware.  That wasn't the assumption.

11                   MR. ROMAINE:  So they should only vary  
12 slightly.  It's more likely the scenario you're  
13 describing would be one where one gets 88 percent and the  
14 other gets 92 percent.

15                   MR. ZABEL:  Then they have no flexibility.  
16 They have to do the same thing, don't they?

17                   MR. ROMAINE:  Right.

18                   MR. ZABEL:  Thank you.

19                   MR. HARRINGTON:  My understanding is we will  
20 come back to technology feasibility overall when we get  
21 to Chapter 8, so I'm not going to pursue it further.  I  
22 was just directing my questions to any witnesses who  
23 wouldn't be present and what their opinions might have  
24 been, but I'm not trying to cut anybody else off.

1 HEARING OFFICER TIPSORD: Thank you.

2 Mr. Bonebrake?

3 MR. BONEBRAKE: I did have a couple of  
4 follow-ups. I think, Mr. Ross, in your testimony you  
5 indicated that one or more of the individuals that you  
6 spoke with had a concern or concerns expressed to you  
7 concerning achieving 90 percent. What was the concern or  
8 what were the concerns that were expressed to you?

9 MR. ROSS: That was a while ago, mind you,  
10 and to the best of my recollection, I think it was  
11 generally accepted that 90 percent reduction was  
12 aggressive; that some of the testing -- and Dr. Staudt  
13 will address this in detail. He's much more familiar  
14 with the over 30 some odd tests that have been done on  
15 mercury controls, but some of the testing has raised  
16 issues on particular situations where 90 percent would be  
17 more difficult than others, and we've acknowledged that  
18 there is some degree of uncertainty with many of these,  
19 some of these controls, so general new technology  
20 uncertainty type of concerns.

21 MR. BONEBRAKE: And your view would be our  
22 questions pertaining to these scenarios that would pose  
23 more difficulties or uncertainties, would -- those  
24 questions would best be directed to Dr. Staudt?

1 MR. ROSS: Yes.

2 MR. BONEBRAKE: One related question. I  
3 think you also used the term soft landing --

4 MR. ROSS: Right.

5 MR. BONEBRAKE: -- in one of your answers.  
6 What does that mean, Mr. Ross?

7 MR. ROSS: My understanding is the way the  
8 term was used is that in the event that some of these  
9 units are not able to achieve an aggressive mercury  
10 reduction standard that there is some way that they could  
11 achieve compliance, such as building in the flexibility,  
12 so a soft landing would be flexibility in the rule or I  
13 think our -- the Temporary Technology Based Standard is  
14 exactly almost what was meant, in my opinion -- and this  
15 is just my opinion -- of what was meant by a soft  
16 landing, that a company does its best to reach or achieve  
17 compliance with the standard, but if it's still unable  
18 to, then there's a way that allows them additional time  
19 to take measures to try and get -- come into compliance,  
20 and that's what our Temporary Technology Based Standard  
21 does, so --

22 MR. BONEBRAKE: I'm sure we'll have more  
23 questions in that regard later, but thank you for now.

24 HEARING OFFICER TIPSORD: Ms. Bugel? Please



1 identify yourself.

2 MS. BUGEL: Faith Bugel, Environmental Law &  
3 Policy Center, for the record. I have one follow-up  
4 question for each witness. Mr. Romaine, I just wanted to  
5 go back to the questions about Mr. Zabel's example of 105  
6 percent versus 70 percent. If you have three units all  
7 that are equal in size and one of them is making 75  
8 percent, what do the other two have to make to hit the 90  
9 percent average?

10 MR. ROMAINE: Again, you're coming up with a  
11 theoretical example. You're making assumptions that each  
12 of the units operates for identical amount of throughput  
13 using similar coal supply. I think the question is  
14 flawed, because if they're identical, I would expect less  
15 variability in performance of the units, but using this  
16 arbitrary mathematical example, the arithmetic would say  
17 that the average of 75 plus 97 and a half plus 97 and a  
18 half is 90.

19 MS. BUGEL: Okay. Thank you. And then a  
20 question for Mr. Ross. The -- I just wanted to talk  
21 about the flexibility, ask you a question about the  
22 flexibility in the rule. First, there are at least three  
23 areas the rule provides flexibility or more?

24 MR. ROSS: I believe there's more.

1 MS. BUGEL: Okay. What would those be?

2 MR. ROSS: First the rule requires --  
3 There's two standards, like I had explained. It's not  
4 just 90 percent. You have the choice of how you comply.  
5 It's 90 percent or an equivalent output-based standard,  
6 so you can comply with the 90 percent or you can comply  
7 with the 0.008 pounds of mercury per gigawatt hour.  
8 Second, the rule does not mandate how you comply; that  
9 is, it does not tell power plants, you need to put on  
10 this particular type of control device or here's the  
11 steps you need to take for compliance. It simply sets  
12 forth the standards and allows the companies to choose  
13 how they comply. The rule is in two phases, Phase I and  
14 Phase II, with Phase I being less stringent than Phase  
15 II, giving companies more time to optimize, take  
16 additional measures to achieve greater levels of  
17 compliance that are required in the second phase.

18 The company -- I mean the rule allows averaging  
19 provisions, which we've gone into to some level of  
20 detail, so each and every unit does not need to comply  
21 with the standard. There's averaging provisions. The  
22 rule has a Temporary Technology Based Standard, which is  
23 flexibility, in that units that can't comply with the  
24 standard are given additional time to comply, find ways

1 to comply, and the rule allows for units that will shut  
2 down in the future -- that is, there have been a few  
3 units identified in Illinois that will be shutting down  
4 in the near future -- those units can avoid installing  
5 controls to comply with the rule provided that they  
6 commit to shutting down by a certain date, so they can  
7 continue to operate without controls past the compliance  
8 date of the rule for a certain period of time provided  
9 that they commit to shut down.

10 MS. BUGEL: And I just had one follow-up  
11 question on your second point, which is that the rule  
12 does not mandate a technology. There's been a lot of  
13 discussion of halogenated ACI, but then is it correct  
14 that the rule does not require any company to use  
15 halogenated ACI to meet the rule?

16 MR. ROSS: That's correct.

17 MS. BUGEL: I have no further questions.  
18 Thank you.

19 MR. HARRINGTON: One follow-up, if I may.  
20 You mentioned soft landing earlier, and Mr. Bonebrake  
21 asked you about it. Was there also a suggestion of the  
22 other third parties who you talked to that emission  
23 trading be considered?

24 MR. ROSS: I don't believe I heard that from

1 the other third parties we consulted. We certainly heard  
2 it from the utilities and the stakeholders. Well, I may  
3 take that -- I think USEPA, we did consult with them  
4 prior to this rule, and I believe their position was that  
5 we should do a trading program.

6 MR. HARRINGTON: Thank you. Go ahead.

7 HEARING OFFICER TIPSORD: Question number  
8 20, I believe.

9 MR. ROSS: 20, "Is it fair to say that  
10 Illinois EPA is relying upon Dr. Staudt's expertise as  
11 set forth in his testimony and Chapter 8 of the Technical  
12 Support Document to determine the availability and costs  
13 of mercury control technology?" I believe we established  
14 this to a great deal that, yes, we are relying on  
15 Dr. Staudt. However, he was not the sole source of  
16 information, and we have addressed that in the previous  
17 questions.

18 21, "Has Illinois EPA carried out any comparison  
19 between the Illinois EGUs and those which were studied in  
20 the various studies referred to by Dr. Staudt in his  
21 testimony and Chapter 8 of the Technical Support  
22 Document?" To some degree. We have compiled detailed  
23 data on the 21 coal-fired power plants in Illinois  
24 subject to the rule, and we have shared this information

1 with Dr. Staudt and he has done a more extensive  
2 comparison than we have done on a unit-by-unit basis  
3 since we basically retained him to do -- to perform that  
4 analysis, so --

5           22, "If so, please describe that study and its  
6 conclusions." I basically did that, but the conclusions  
7 reached are described in detail in the TSD, and in  
8 summary, we concluded that all of Illinois' coal-fired  
9 EGUs should be able to comply with the requirements of  
10 the rule.

11           23, "What information did Illinois EPA provide to  
12 Dr. Staudt after he filed his original testimony?" We  
13 have been providing Dr. Staudt with updated information  
14 as we receive it. Since he filed his original testimony,  
15 I believe we supplied him with the knowledge that we were  
16 amending the rule to include TTBS and we provided him  
17 with the information that some of -- more than we  
18 originally believed, that Illinois EGUs were injecting  
19 SO3 at plants, and we provided him with information  
20 obtained from on-site inspections of the existing control  
21 configurations at Illinois' 21 coal-fired power plants  
22 that are subject to the rule.

23           MR. HARRINGTON: Did you provide any of this  
24 information in the form of documents?

1 MR. ROSS: Yes, we did.

2 MR. HARRINGTON: We'd like to request that  
3 those documents be made part of the record.

4 MR. ROSS: I believe we can do that. We can  
5 supply those documents.

6 MR. HARRINGTON: And we may have questions  
7 about them after we get an opportunity to review them,  
8 but I'll hold those for now.

9 HEARING OFFICER TIPSORD: Well, it might be  
10 helpful if we could get those before Dr. Staudt's  
11 testimony.

12 MR. ROSS: Okay. I believe at least one  
13 party has requested that information and we supplied it  
14 to them. Kathleen submitted a request and we provided  
15 that information to her, but, yeah, certainly we have  
16 that compiled. That's the results of the inspections,  
17 and we have that information compiled and we can readily  
18 provide it.

19 MR. HARRINGTON: Was there additional  
20 documentation provided to him rather -- other than those  
21 drawings from your inspections?

22 MR. ROSS: Other than drafts of the TTBS,  
23 the Temporary Technology Based Standard, I do not believe  
24 so, and I believe that at least the concept paper in

1 those drafts were also shared with the utilities.

2 MR. HARRINGTON: After he -- Dr. Staudt  
3 provided -- may I have a moment, please?

4 HEARING OFFICER TIPSORD: Uh-huh.

5 (Off the record.)

6 MR. HARRINGTON: Why don't we go on. Thank  
7 you.

8 HEARING OFFICER TIPSORD: Okay. I think  
9 we're ready for question number 24, then.

10 MR. ROSS: "Did Dr. Staudt ask the Illinois  
11 EPA for additional information after he filed his  
12 original testimony? What did he ask for? Was it  
13 provided?" And Dr. Staudt has an outstanding request  
14 that we provide him with detailed information on the  
15 Illinois EGUs and updated information as we receive it,  
16 and we have encountered throughout this process of  
17 studying and reviewing this data that there are several  
18 conflicting sources of data regarding Illinois EGUs in  
19 the areas of coal-fired power plants regarding their  
20 control configurations. Examples of different sources of  
21 information include the 1999 Information Collection  
22 Request, ICF's database, Illinois EPA's permit  
23 applications, field inspections, and as new information  
24 is obtained, we have shared this information with

1 Dr. Staudt, and as I mentioned in the previous answer, we  
2 did inform Dr. Staudt that we believe many more EGUs are  
3 injecting SO3 than we originally had believed after he  
4 filed his testimony, which I think the question refers  
5 to, and so he did ask for additional information and we  
6 did provide it.

7           25, "What discussions did the Illinois EPA have  
8 with Dr. Staudt after he filed his testimony regarding  
9 revisions to his prefiled testimony?" We've talked about  
10 that and we had some discussion in previous answers, but  
11 we did discuss the potential need to revise his testimony  
12 as a result of the addition of the TTBS and our  
13 discussions with him involving SO3 injection, and I  
14 believe another issue that was maybe overlooked was we  
15 also talked about some of the smaller units at Meredosia  
16 firing Illinois coal and having cold-side ESPs and that  
17 there was issues with them being able to achieve --  
18 readily being able to achieve the standard with  
19 halogenated ACI.

20           26, "As a result of Dr. Staudt's revised prefiled  
21 testimony, is the Illinois EPA modifying its TSD in any  
22 way?" No, we have no plans to modify the TSD.

23           27, "As a result of Dr. Staudt's testimony, has  
24 the Illinois" --



1 MR. HARRINGTON: Excuse me.

2 HEARING OFFICER TIPSORD: Excuse me.

3 Mr. Harrington?

4 MR. HARRINGTON: Given the revisions of the  
5 prefiled testimony and the revised rule and the second  
6 revision of the prefiled testimony, does that affect the  
7 conclusions of the TSD, particularly the technical  
8 conclusions, in any way?

9 MR. ROSS: I believe it would have some  
10 impact on our conclusions. I'm not sure to the degree of  
11 impact it has on the Technical Support Document  
12 conclusions. I don't believe we've identified a conflict  
13 in there anywhere except in Section 10 in particular  
14 where we say the TTBS is not in the rule. Obviously the  
15 TTBS now is in the rule, so that's in conflict. The  
16 question, I believe, is are we going to modify the  
17 Technical Support Document, and in consultations with the  
18 legal staff, it was not identified as a requirement that  
19 we modify the Technical Support Document.

20 MR. HARRINGTON: My follow-up question was  
21 are there changes in the conclusions that are contained  
22 in the Technical Support Document that we should identify  
23 for the Board so when they're looking at it they'll know  
24 where the Agency's conclusions or changes may be?

1                   MR. ROSS: I would say to the extent there  
2 are changes in -- I mean, you'd have to be -- I'm not  
3 sure what conclusions you're referring to. The  
4 conclusions on cost I believe would be less affected, but  
5 Dr. Staudt could probably answer that better than I,  
6 but --

7                   MR. HARRINGTON: Would there be a change in  
8 conclusion as to the ability of the technologies set  
9 forth in Chapter 8 of the Technical Support Document to  
10 achieve either the 90 percent removal or the 0.008  
11 standard?

12                   MR. ROSS: I don't believe so, no, but I  
13 would have to go back, honestly, and review that. I have  
14 not done that.

15                   MR. HARRINGTON: Thank you. I'm ready to  
16 move on.

17                   HEARING OFFICER TIPSORD: Question 27.

18                   MR. ROSS: "As a result of Dr. Staudt's  
19 testimony, has the Illinois EPA considered revising its  
20 proposed rule in any way?" And obviously we've amended  
21 the rule to include the TTBS. No further amendments are  
22 anticipated or believed needed.

23                   HEARING OFFICER TIPSORD: Mr. Zabel?

24                   MR. ZABEL: Was the addition of the -- or

1 the amendment to add the TTBS discussed with Dr. Staudt  
2 before it was proposed?

3 MR. ROSS: Yes.

4 MR. ZABEL: Is there any documentation of  
5 those discussions?

6 MR. ROSS: I don't believe as far as notes  
7 on what we discussed. We had numerous conference calls  
8 with Dr. Staudt, individual calls back and forth. He was  
9 here in person many times. Those discussions on the TTBS  
10 have been ongoing almost since the day we retained him,  
11 so they've been going on for months regarding the TTBS.  
12 As far as after he filed his testimony, it's the same  
13 situation. We've had numerous conference calls. He's  
14 been here in person I believe once or twice. Many, many  
15 conversations with Dr. Staudt along this. We've traded  
16 e-mails, probably, you know, 30, 40 on this issue.

17 MR. ZABEL: Was the filing initiated -- and  
18 I realize in that extensive an exchange you may not be  
19 able to answer this, Mr. Ross, but was the filing of the  
20 proposal to amend the rule to add the TTBS done at his  
21 instigation?

22 MR. ROSS: He was certainly in support of  
23 it. I think it's something that the Agency has believed  
24 was necessary to some extent since day one, and I believe

1 we explained in our amendment that that had been  
2 originally proposed at the initial stakeholder meeting  
3 and had been discussed in several of the stakeholder --  
4 subsequent stakeholder meetings, but industry did not  
5 indicate to a large degree that they -- anyone would  
6 utilize that and there wasn't a lot of feedback on it, so  
7 it was not contained in the rule. However, after the  
8 rule was filed, it came to our attention that industry in  
9 fact would utilize that and was very much in favor of  
10 having that in there, and so that kicked off another  
11 round of the Agency reviewing it in detail, in which  
12 Dr. Staudt was involved in the entire process of coming  
13 up with the TTBS that is now in the rule.

14 MR. ZABEL: How did it come to the Agency's  
15 attention that industry would utilize it?

16 MR. ROSS: Well, I -- we were called over to  
17 the capitol building to meet with representatives of  
18 industry in which the TTBS was the primary topic, and  
19 that was shortly after the rule was filed. When I say  
20 we, Laurel Kroack and myself and Director Scott were  
21 called over to the capitol building to meet with industry  
22 representatives.

23 MR. ZABEL: That was the primary topic, you  
24 say. Was there --

1 MR. ROSS: That's correct.

2 MR. ZABEL: -- an indication in that meeting  
3 that industry would utilize the -- something along the  
4 lines of the TTBE or the TTBS?

5 MR. ROSS: Well, I wasn't privy to  
6 discussions that happened at a higher level, but it was  
7 conveyed to me that industry wanted and would utilize the  
8 TTBS if it was in the rule and that there was some  
9 concern that the rule that we filed did not contain the  
10 TTBS.

11 MR. ZABEL: Who conveyed that information to  
12 you?

13 MR. ROSS: Laurel Kroack, our bureau chief,  
14 and I believe she received it through discussions with  
15 our director, who I'm not sure who he spoke with, but I  
16 believe -- and I'm not certain on this -- but probably  
17 Steve Frankel, who is the Governor's environmental policy  
18 advisor.

19 MR. ZABEL: Do you know or have you been  
20 told whom any of those people above you talked to in  
21 industry?

22 MR. ROSS: No, but industry was well  
23 represented at the meeting I attended, and, no, I do not  
24 know who they spoke with.

1                   MR. ZABEL:  So when this came down to you  
2  from on high, if I may use that phrase --

3                   MR. ROSS:  That's fine.

4                   MR. ZABEL:  -- you don't know what  
5  discussions those folks on high, if any, had with  
6  industry.

7                   MR. ROSS:  No, I do not.  As I mentioned, it  
8  was conveyed to me that the TTBS, we needed to take  
9  another hard look at that and try and get something into  
10 the rule.

11                  MR. ZABEL:  So it may not have been  
12 instigated by industry at that point at all as far as you  
13 know.

14                  MR. ROSS:  I can only say what was conveyed  
15 to me, and the indication I had, the impression I walked  
16 away with was that industry had expressed concern that  
17 the rule was -- the rule that we filed did not contain  
18 the TTBS.

19                  MR. ZABEL:  Thank you.

20                  HEARING OFFICER TIPSORD:  Ms. Bassi?

21                  MS. BASSI:  Mr. Ross, when you say industry,  
22 to whom are you referring?

23                  MR. ROSS:  Well, there were representatives  
24 from Midwest Generation, Dynegy, Ameren, Kincaid,

1 Dominion, I believe City Water, Light & Power was  
2 represented, Indeck-Elwood, so the utilities and their  
3 representatives.

4 MS. BASSI: Were all of these utilities, or  
5 as you call them, represented existing sources?

6 MR. ROSS: No, they were not.

7 MS. BASSI: Is it possible that this  
8 conveyance of information came from potential new sources  
9 of electrical generation?

10 MR. ROSS: Yes, that's possible.

11 MS. BASSI: Is it possible that some of  
12 those new sources were not -- would not be coal-fired?

13 MR. ROSS: Would not be coal-fired?

14 MS. BASSI: Never mind. That was a dumb  
15 question. You can put that on the record.

16 MR. BONEBRAKE: She just did.

17 MS. BASSI: Yes. I had another question.  
18 Oh, I know. If the Agency believed from day one that a  
19 TTBS type relief mechanism should be included in the  
20 rule, why did the Agency not include it in the rule in  
21 the first place regardless of how industry reacted to  
22 your presentation of it?

23 MR. ROSS: Well, the TTBS was contemplated  
24 since day one and it was discussed since day one. As we

1 proceeded through the process, as I mentioned, in the  
2 stakeholder meetings we raised the topic and discussed it  
3 and it just didn't appear that there was much interest in  
4 the TTBS or that no one had specifically identified that  
5 they would utilize it to any large degree, so there were  
6 policy discussions and the decision was made to not  
7 include it.

8 MS. BASSI: I thought I remembered -- I  
9 think I remember -- that you said a few minutes ago that  
10 at least some people at the Agency believed it should be  
11 in there since day one regardless of any other, you know,  
12 regulated entity inputs or lack of expression or  
13 whatever, and my question is, if the Agency's belief was  
14 that it should be included regardless of what industry  
15 did or reacted to it, I mean, industry reacted negatively  
16 to the proposal and that didn't deter it. Why would that  
17 not have been included?

18 MR. ROSS: Well, there were policy  
19 discussions and decisions, and the result of those  
20 discussions and decision was that the TTBS did not make  
21 it into the initial filing of the rule.

22 MS. BASSI: Was it an attempt at pressure?

23 MR. ROSS: No.

24 MS. BASSI: No?



1                   MR. ROSS:  Not -- Well, that was not  
2 conveyed to me, that it was an attempt at pressure.

3                   MS. BASSI:  What was conveyed to you as to  
4 why it would be left out?  Just policy?

5                   MR. ROSS:  Policy, correct.

6                   MS. BASSI:  Okay.

7                   HEARING OFFICER TIPSORD:  Are we ready,  
8 then, Mr. Harrington?

9                   MR. HARRINGTON:  If I may just --

10                  HEARING OFFICER TIPSORD:  Absolutely.

11                  MR. HARRINGTON:  I assume there will be  
12 another opportunity to come back and talk about the  
13 details of the technology, to be presenting testimony in  
14 support of the amendment, explaining what it means, and  
15 then we can then get into more details on it at that  
16 time.

17                  MR. ROSS:  Yeah, we will be ready to discuss  
18 it in detail at a later period.

19                  MR. HARRINGTON:  Then I'll withhold my  
20 question.  One question just so the record's clear.  The  
21 amendment you filed with the Board and was accepted last  
22 Thursday is -- has more restrictions in it than the one  
23 that was discussed in the public hearing; is that not  
24 correct?

1                   MR. ROSS: Well, I believe we discussed  
2 concepts in the public hearing. We never actually  
3 proposed a TTBS. We had just provided and discussed  
4 bullet points of potential TTBS, the framework of it.

5                   MR. HARRINGTON: We're prepared to come back  
6 to that another time.

7                   HEARING OFFICER TIPSORD: Ms. Bassi?

8                   MS. BASSI: Mr. Ross, at various times --  
9 and I -- at various times did the Agency not provide  
10 draft regulatory language?

11                  MR. ROSS: On the TTBS?

12                  MS. BASSI: Yes. Was that not included in  
13 one of the draft rules?

14                  MR. ROSS: Not to my knowledge.

15                  MS. BASSI: Again, my memory could be  
16 failing here.

17                  MR. ROSS: No, I don't believe it was. I  
18 believe we had a placeholder in the draft rules where  
19 that was.

20                  MS. BASSI: Okay.

21                  MR. ROSS: Are we on 27?

22                  HEARING OFFICER TIPSORD: No, I believe we  
23 are actually on 28.

24                  MR. ROSS: 28, "Has Illinois EPA carried out

1 a review of the physical circumstances of each of the  
2 EGUs in Illinois to determine the feasibility of  
3 installing halogenated powdered activated carbon prior to  
4 the electrostatic precipitators on Illinois EGUs burning  
5 sub-bituminous coal?" And yes, we have.

6 HEARING OFFICER TIPSORD: Mr. Harrington?

7 MR. HARRINGTON: May I ask when that was  
8 conducted?

9 MR. ROSS: It was conducted to some degree  
10 in -- prior to this rulemaking. Well, when I say prior,  
11 definitely prior to the filing of the rule, but it's an  
12 ongoing process is why it's difficult to say exactly when  
13 it was conducted. It's been something that we've been  
14 building on as we go. There has been an initial document  
15 that was provided last year that had all the control  
16 configurations of Illinois EGUs listed out off the 59  
17 units, and as we've gone through the process, as I  
18 mentioned in the previous answer, we uncovered some  
19 errors in the control configurations on some of these  
20 units. We've continuously updated that original document  
21 to where it's grown in size and complexity and level of  
22 detail to now I think we have a comprehensive document  
23 that goes into some level of detail of each and every EGU  
24 that we are fairly confident in at this time.

1                   MR. HARRINGTON: Is that document part of  
2 the record?

3                   MR. ROSS: I don't believe so.

4                   MR. HARRINGTON: Was that document prepared  
5 for the purpose of determining and evaluating the  
6 feasibility of the controls being proposed in this  
7 rulemaking?

8                   MR. ROSS: It was used for that purpose.  
9 Was it constructed solely for that reason? I would say  
10 no, but it was definitely relied upon for those  
11 determinations, so if the next question is can we provide  
12 that document as part of the record, yes, we can.

13                   HEARING OFFICER TIPSORD: If it's not his,  
14 it's certainly mine.

15                   MR. ROSS: Hopefully someone's making a note  
16 of this. Okay. So, yeah, we can provide that.

17                   MR. HARRINGTON: And may I follow up? And I  
18 assume that document as it has been revised was provided  
19 to Dr. Staudt?

20                   MR. ROSS: Yes, it has.

21                   MR. HARRINGTON: Has that document ever  
22 been -- previously been provided to the various EGUs for  
23 their review and comment?

24                   MR. ROSS: Certainly not in its present

1 form. In prior forms, I do not know. Not to my  
2 knowledge.

3 29, "If so, please describe the study and its  
4 conclusions." We have compiled detailed information on  
5 each of the EGUs using ICR data, permit applications and  
6 field inspection reports, and we will be providing that  
7 as part of the record.

8 MR. HARRINGTON: Thank you.

9 MR. ROSS: 30?

10 HEARING OFFICER TIPSORD: Uh-huh.

11 MR. ROSS: "Has Illinois carried out any  
12 independent studies to determine the impacts of sulfur  
13 trioxide injection for gas conditioning upon the  
14 effectiveness of halogenated powdered activated carbon  
15 injection prior to the ESPs?" And the answer to that is  
16 yes, we have to some degree. I believe Dr. Staudt has  
17 done this while under contract with the State.

18 MR. HARRINGTON: Excuse me. When you say  
19 has done this, has the State actually carried out any  
20 work in the field where it's examining the data or  
21 contracted for testing to see what the effect of SO3  
22 would be on --

23 MR. ROSS: Not to my knowledge, no.

24 MR. HARRINGTON: Does the State have any

1 studies in its possession which demonstrate the impact of  
2 SO3 conditioning upon the effectiveness of the  
3 halogenated powdered activated carbon injection?

4 MR. ROSS: Studies? No. We have Powerpoint  
5 slides that refer to studies, but we don't have the  
6 studies themselves, to the best of my knowledge, in our  
7 possession. I believe Dr. Staudt in all likelihood is in  
8 possession of those studies.

9 31, "If so, please describe that study and its  
10 conclusion." Again, Dr. Staudt is the best person to  
11 answer this question.

12 32, "Has Illinois EPA made any determination of  
13 the impacts of halogenated powdered activated carbon  
14 injection prior to the EPSs upon the performance of the  
15 ESPs to achieve particulate and opacity standards or upon  
16 the reliability of the ESPs?" Answer is yes, we have  
17 looked into this issue.

18 33, "If so, please describe that study and its  
19 conclusions." This filing has been submitted on recycled  
20 paper, it says here on mine. This is thoroughly  
21 discussed in the TSD. I believe there's a portion or  
22 segment of the TSD in Section 10 dedicated specifically  
23 to this topic. Our conclusion was that if an increase in  
24 PM emissions would occur, it is believed it would be

1 minimal, again due to the small addition to the  
2 particulate loading from the ESP from sorbent injection,  
3 so that is the conclusion, and it goes into detail in the  
4 Technical Support Document on why this is so. Basically,  
5 the incremental addition of particulate that occurs as a  
6 result of ACI injection is small in comparison to the  
7 overall loading an ESP experiences under normal  
8 operation. I believe it's between 1 percent or typical  
9 number's around 1 percent, and several of the -- well, I  
10 don't want to say several -- at least one or two of the  
11 tests that have been performed on ESP systems have looked  
12 into this issue, and Dr. Staudt will be going into some  
13 detail on those.

14 MS. BASSI: When you say at least one or  
15 two, is -- 1 percent at least one or two tests that were  
16 performed in this, do you mean there were only one or two  
17 tests performed or out of a whole myriad of tests only  
18 one or two showed 1 percent?

19 MR. ROSS: Well, I wasn't necessarily tying  
20 those together.

21 MS. BASSI: Oh.

22 MR. ROSS: I believe what we looked at is  
23 the incremental addition in particulate that the ESP  
24 would see as a result of ACI injection, and our

1 conclusion was that it would see an additional loading of  
2 around 1 percent, so what I'm saying is the additional  
3 loading to the ESP as a result of ACI is minimal, and we  
4 believe a lot of the ESPs would easily handle this  
5 additional particulate loading, and in some of the stack  
6 tests, we did have staff -- some staff go back and -- or  
7 who were familiar with stack testing at some of the power  
8 plants and the ESPs conducted at those power plants that  
9 the ESPs were -- the level that they demonstrated  
10 compliance was well above that 1 percent when you looked  
11 at it that they could easily handle this additional  
12 loading. I wouldn't say easily. They could handle this  
13 additional loading.

14 HEARING OFFICER TIPSORD: Mr. Harrington?

15 MR. HARRINGTON: Are you or other members of  
16 your panel the appropriate persons to direct questions  
17 about Section 10.4 of the Technical Support Document or  
18 should those be reserved for Dr. Staudt?

19 MR. ROSS: Well, I would say it would  
20 probably be best to ask those questions with Dr. Staudt  
21 present up here and a member of the Agency up here as  
22 well. That was a collaborative effort between Dr. Staudt  
23 and Agency personnel.

24 MR. HARRINGTON: We'll reserve those



1 questions for him.

2 HEARING OFFICER TIPSORD: Thank you.

3 MR. ROSS: 34, "Has Illinois EPA made any  
4 independent determination whether the use of halogenated  
5 powdered activated carbon injection prior to the ESPs  
6 would result in significant increase of particulate  
7 emissions potentially triggering the prevention of  
8 significant deterioration or nonattainment New Source  
9 Review on the type and size of ESPs in operation in  
10 Illinois?" Yes, we have looked into this issue, and  
11 again, it is addressed in the TSD.

12 HEARING OFFICER TIPSORD: Mr. Harrington?

13 MR. HARRINGTON: Just follow up. Is -- In  
14 addition to what's set forth in 10.4 of the TSD, do you  
15 have any other information on this subject?

16 MR. ROMAINE: I would just comment that it  
17 is something that was considered in development of the  
18 Temporary Technology Based Standard, which does establish  
19 an alternative criteria for activated carbon injection if  
20 a source demonstrates that injection of a higher rate  
21 would threaten compliance with New Source Review or PSD.

22 HEARING OFFICER TIPSORD: I'm sorry. You  
23 trailed off, Mr. Romaine. New Source Review or --

24 MR. ROMAINE: Prevention of significant

1 deterioration.

2 HEARING OFFICER TIPSORD: Yes. Thank you.

3 MR. HARRINGTON: We'll have an opportunity  
4 later to talk more about the temporary technology. I'll  
5 hold those questions.

6 MR. ROSS: 36.

7 HEARING OFFICER TIPSORD: You know what?

8 Let's -- It's almost 2:30. Let's take a ten-minute  
9 break, and then we'll take another one between 3:30 and  
10 4.

11 (Brief recess taken.)

12 HEARING OFFICER TIPSORD: I think we're  
13 ready to go to Ameren question 36.

14 MR. BONEBRAKE: Madam Hearing Officer, I did  
15 have a follow-up question on Mr. Romaine's last statement  
16 right before break.

17 HEARING OFFICER TIPSORD: Okay.

18 MR. BONEBRAKE: Mr. Romaine, I think you  
19 mentioned just before we broke that New Source Review was  
20 considered in connection with the TTBS. Can you describe  
21 for us the analysis or other consideration of New Source  
22 Review that was performed by IEPA in connection with the  
23 TTBS?

24 MR. ROMAINE: There was no quantitative

1 analysis performed. The provisions in the TTBS that  
2 require injection of activated carbon at certain rates  
3 were simply bypassed in the event that the owner/operator  
4 of an EGU demonstrates that such rate or rates would  
5 increase particulate matter emissions or opacity to where  
6 it would threaten compliance with applicable regulatory  
7 requirements, so that is a feature of the TTBS that  
8 specifically responds to concerns expressed about the  
9 impact of activated carbon injection on compliance with  
10 particulate matter standards, opacity regulations and New  
11 Source Review requirements.

12 MR. BONEBRAKE: You used the term bypassed  
13 in the answer. What do you mean by that, Mr. Romaine?

14 MR. ROMAINE: For existing sources, the TTBS  
15 requires that, as a general matter, halogenated activated  
16 carbon be injected at certain minimum rates. If a source  
17 demonstrates that injection of those rates at all times  
18 or under certain circumstances would threaten particulate  
19 matter or opacity compliance, alternative minimum rates  
20 can be set on a case-by-case basis.

21 MR. BONEBRAKE: So does that mean that --  
22 and when we talk about threaten compliance, are you  
23 talking about approaching the significance levels under  
24 the New Source Review program for specific pollutants?

1                   MR. ROMAINE: Under the New Source Review  
2 program, that's correct, threaten would mean approaching  
3 the significance levels.

4                   HEARING OFFICER TIPSORD: Mr. Zabel?

5                   MR. ZABEL: Was there any other  
6 consideration to New Source Review permitting in  
7 connection either with the TTBS or the underlying rule  
8 itself?

9                   MR. ROMAINE: As has already been explained,  
10 there was consideration made, as discussed in the  
11 Technical Support Document. I was explaining a further  
12 consideration that occurred after the preparation of the  
13 Technical Support Document.

14                   MR. ZABEL: That leads me to another line of  
15 questions. Mr. Kim, I'm not -- I don't mean to interrupt  
16 you back there, but whether this is the appropriate time.  
17 Something in the TTBS triggered in my mind a question of  
18 state permitting, and I don't know if you have -- if this  
19 is the appropriate point for me to pursue it or if you  
20 had probably in mind when we were discussing the rule  
21 more -- in more depth.

22                   MR. KIM: I think when we get to the bulk of  
23 Mr. Romaine's testimony, that might be maybe a better  
24 time.

1                   MR. ZABEL: That's when I had planned on it.  
2 I just wanted to be sure that was appropriate and  
3 acceptable.

4                   MR. KIM: And I neglected to -- since we  
5 have Mr. Romaine and Mr. Kaleel on the panel now, I  
6 didn't submit their prefiled testimony. Should I do that  
7 now or do you want me to wait?

8                   HEARING OFFICER TIPSORD: I would say we  
9 could go ahead and wait. I --

10                  MR. KIM: That's fine.

11                  HEARING OFFICER TIPSORD: I think they're  
12 answering these questions and I'm not sure these  
13 questions are directly related to their testimony at this  
14 point, so --

15                  MR. KIM: And I think that's why I just  
16 didn't think of it.

17                  HEARING OFFICER TIPSORD: And I -- that's  
18 what I was thinking too. I didn't really ask for it,  
19 so --

20                  MR. KIM: Okay. Thank you.

21                  MR. ROSS: Question 36, "If an injection of  
22 halogenated powdered activated carbon before the ESPs on  
23 Illinois EGUs will not attain the standards set forth in  
24 the Illinois EPA proposed regulation, would you agree as

1 set forth in the Technical Support Document that the  
2 injection of halogenated powdered activated carbon after  
3 the ESPs and prior to a newly installed baghouse is the  
4 only logical next step at this time to attempt to achieve  
5 the Illinois standards?" The quick answer is no, we  
6 would not agree with that. There are many options  
7 available to a company to achieve the standard, and we've  
8 gone over some of those options previously, some of the  
9 flexibility provisions. There's averaging, and then also  
10 I believe this question was probably created before the  
11 TTBS. Obviously, with the TTBS now in the rule, you  
12 cannot meet the standard and still comply with the rule,  
13 but there are other options available, control  
14 configuration options available, and Dr. Staudt is the  
15 expert in that area, and I believe he had this question  
16 or a similar question asked of him, so he will be going  
17 over this question in his testimony.

18 HEARING OFFICER TIPSORD: Mr. Harrington?

19 MR. HARRINGTON: Brief follow-up. If we  
20 take out the words in this question "to achieve the  
21 Illinois standards" and substitute the words "90 percent  
22 removal, 0.008" --

23 MR. ROSS: I understand what you mean.

24 MR. HARRINGTON: Right.

1                   MR. ROSS: Taking out the flexibility  
2 provisions part of the equation.

3                   MR. HARRINGTON: Right. Just the  
4 omission -- either of those two omissions.

5                   MR. ROSS: Right, and I fall back on that  
6 there still are other control options that could be  
7 utilized besides halogenated ACI. We have not rested on  
8 the premise that halogenated ACI or PAC, powdered  
9 activated carbon, which are analogous, are the only  
10 ways -- or the only control devices that can be utilized  
11 to comply with the rule, and again, I'm going to defer to  
12 Dr. Staudt on much of this. He is the expert in this  
13 issue much more so than I.

14                   MR. HARRINGTON: Then we will reserve  
15 follow-up questions for Dr. Staudt.

16                   HEARING OFFICER TIPSORD: Thank you.

17                   MR. KIM: If there's no objection, instead  
18 of reading the question and then -- can I just -- or can  
19 the witness just as we come to a question say we would  
20 like to defer this to Dr. Staudt?

21                   HEARING OFFICER TIPSORD: Absolutely.

22                   BOARD MEMBER MOORE: Yes.

23                   MR. KIM: Questions 37 and 38 I believe --

24                   MR. ZABEL: Boy, the appeal on that one got

1 ruled on quickly, didn't it?

2 MR. KIM: Questions 37 and 38 I believe we  
3 would like to defer to Dr. Staudt's panel.

4 MR. ROSS: And the only reason I was  
5 attempting, because they specifically asked had the  
6 Agency or had the Illinois EPA.

7 BOARD MEMBER MOORE: You're being very  
8 thorough.

9 MR. KIM: That's fine, but --

10 MR. ROSS: But I'd be more than happy to  
11 skip right over those.

12 MR. KIM: Maybe we can move to 39.

13 MR. HARRINGTON: I assume Mr. Ross is going  
14 to be on the panel with Dr. --

15 MR. ROSS: Yes.

16 MR. HARRINGTON: -- Staudt at that time in  
17 terms of the Agency official position in terms of the  
18 testimony?

19 MR. KIM: Yes, he will.

20 MR. ROSS: Yes, I will.

21 MR. HARRINGTON: Very good. We'll reserve,  
22 then.

23 MR. ROSS: 39, "Has the Illinois EPA made  
24 any independent determination on the availability of such



1 equipment for all of the EGUs in the state of Illinois  
2 burning sub-bituminous coal?" And I believe that  
3 question is referring to baghouses or fabric filters; is  
4 that --

5 MR. HARRINGTON: Yes.

6 MR. ROSS: Okay. And the answer is no, we  
7 have not made any independent determination as far as  
8 that goes, because we don't believe they will be required  
9 on a widespread basis.

10 40, "If so, please describe that study and its  
11 conclusion." And I rest on my previous answer.

12 MR. KIM: And I believe we can skip  
13 questions 41 and 42 until Mr. Foerter is available.

14 MR. ROSS: I believe he is asked a similar  
15 or the same question.

16 MR. HARRINGTON: Let's just -- Obviously  
17 this question's aimed at the Illinois EPA itself having  
18 made such a determination.

19 MR. ROSS: Okay. In that case, proceed?

20 HEARING OFFICER TIPSORD: Are you going to  
21 be available with Mr. Foerter so that we can do that at  
22 that time?

23 MR. ROSS: Yes, I am.

24 HEARING OFFICER TIPSORD: If that's

1 acceptable. And then that way, if there are follow-ups  
2 that you feel more comfortable directing to him, we'll  
3 have you all together.

4 MR. ROSS: 43 is in the same category as 41  
5 and 42. Dave Foerter, for the record, is with the  
6 Institute of Clean Air Companies, which is an  
7 organization that represents pollution control vendors,  
8 so he is considered an expert on these matters.

9 MR. KIM: 44, then, I think would --

10 HEARING OFFICER TIPSORD: Also go. Right.  
11 43. So we'll go to 45.

12 MR. ROSS: Okay. 45, "Is it not Illinois  
13 EPA's position and belief that the limitations specified  
14 in the proposed Illinois regulation can be achieved by  
15 the injection of halogenated powdered activated carbon  
16 prior to the ESPs?" And that's tied in to the previous  
17 question, and so I believe that is not exactly our  
18 position and belief in that other options are available  
19 for compliance with the limitations.

20 MR. HARRINGTON: We should ask Dr. Staudt  
21 about those?

22 MR. ROSS: I believe you should ask the  
23 panel when Dr. Staudt is present.

24 MR. HARRINGTON: Thank you.

1                   MR. ROSS: 46, "If the operators of the  
2 Illinois EGUs install such a technology and work to  
3 optimize its application without sacrificing control of  
4 opacity and particulate emissions but are unable to  
5 achieve the standards in the Illinois proposal, what do  
6 you envision the consequences to be?" Well, again, I  
7 believe our contention is that the rules can be complied  
8 with, and this question was probably asked in the context  
9 prior to the TTBS.

10                   MR. HARRINGTON: If I may follow up?

11                   HEARING OFFICER TIPSORD: Please,  
12 Mr. Harrington.

13                   MR. HARRINGTON: The TTBS is limited to 25  
14 percent of the capacity of each company; is that correct?

15                   MR. ROSS: That's correct.

16                   MR. HARRINGTON: So for the other 75 percent  
17 capacity, if the designated technology is installed and  
18 halogenated activated carbon prior to the ESPs is  
19 installed, cold-side ESPs with Powder River Basin coal,  
20 and they are unable to achieve the standard, what are the  
21 consequences?

22                   MR. ROSS: I believe they would be out of  
23 compliance with the rule and they would enter into our  
24 enforcement proceedings, which is addressed -- and the

1 reason I was hesitant, because the consequences are  
2 addressed in some of the following questions in some  
3 detail.

4 MR. HARRINGTON: It goes beyond that, and  
5 why don't we go through those and we'll come back to this  
6 along the way.

7 MR. ROSS: Okay. 47, "As drafted, would not  
8 the continued operation be in violation of the regulation  
9 and the Title V permit that would be revised to  
10 incorporate the standards?" If the question is regarding  
11 a source's continued -- continuing to operate without  
12 complying with the proposed rule, then the answer is yes,  
13 the units would be operating in violation of the rule,  
14 and any revisions made to a source would not only be out  
15 of compliance with the rule, but also any applicable  
16 permit provision in an active Title V permit. However,  
17 as previously noted, there are other means by which  
18 sources may find additional flexibility to comply with  
19 the standard.

20 48, "In that case, would Illinois EPA believe  
21 that these facilities should shut down?" No, it is not  
22 our intent to cause the shutdown of any EGUs. As already  
23 discussed, the rule provides the affected facilities with  
24 several compliance options. Further, the Act provides

1 the option of seeking a variance to allow for additional  
2 time if necessary or an adjusted standard if the source  
3 can support such a request.

4 49, "Would Illinois EPA support variances and/or  
5 adjusted standards to allow continued operation of these  
6 facilities either with or without the addition of  
7 additional controls?" And we support the current  
8 structure of the Act and rules which allow for variances  
9 and adjusted standards. However, the Agency cannot  
10 speculate on whether it would support a request that it  
11 has not yet seen which is hypothetical in nature.  
12 Rather, the Agency would review any request for a  
13 regulatory relief on its own merits before a  
14 recommendation is made to the Board.

15 MR. HARRINGTON: Let me pursue this, if I  
16 may.

17 HEARING OFFICER TIPSORD: Mr. Harrington?

18 MR. HARRINGTON: For an adjusted standard,  
19 either there has to be a provision specifically in the  
20 rule setting forth how to obtain it, what the standard  
21 will be to get an adjusted standard, or you have to show  
22 that it is --

23 HEARING OFFICER TIPSORD: We're losing you  
24 in the microphone.

1                   MR. HARRINGTON: My understanding of the  
2 rule is the statute is for an adjusted standard, either  
3 it has to be provided for in the rule when it's adopted  
4 setting forth the standards to obtain one or you must  
5 show that it's based on circumstances not considered  
6 during the rulemaking. Is that your understanding as  
7 well?

8                   MR. ROSS: I would have to consult with our  
9 legal staff and provide a follow-up answer to that.

10                  MR. HARRINGTON: Well, assume that just for  
11 a moment. Has the Agency considered providing standards  
12 in the rule that would allow for an adjusted standard if  
13 this technology was installed even on units that didn't  
14 comply for the TTBS but despite proper operation was  
15 unable to achieve the limitations?

16                  MR. ROSS: I know that we discussed that in  
17 some level of detail, and the conclusion that was reached  
18 in these discussions was that an adjusted standard and  
19 variances were available in the situation you're  
20 describing, so --

21                  MR. HARRINGTON: Well, the rule can provide  
22 the standard within the rule, as I understand it, for  
23 getting such an adjusted standard so that there isn't an  
24 argument later on as to what somebody has to show to get

1 one. Has the Agency considered including such a  
2 provision --

3 MR. ROSS: I would say --

4 MR. HARRINGTON: -- in the rule?

5 MR. ROSS: I would say no, we have not. The  
6 discussions I was involved with was that that was  
7 problematic, if not allowed, providing for an adjusted  
8 standard type of provision in the rule, so that may be  
9 something we need to go back and evaluate if what now  
10 you're saying is that there is the ability to do  
11 something like that in the rule.

12 MR. HARRINGTON: Even if variances and  
13 adjusted standards are available under the Illinois  
14 Environmental Protection Act, do you understand that they  
15 are not binding on the federal government and so USEPA  
16 has officially approved them as an amendment to the state  
17 of limitation plan?

18 MR. ROSS: I believe that's accurate.

19 MR. HARRINGTON: And that USEPA and/or  
20 citizens could sue under the Clean Air Act for violation  
21 of the standard, the underlying standard, until and  
22 unless the variance for adjusted standard is approved as  
23 a revision?

24 MR. ROSS: I believe that's accurate to the

1 extent these provisions are included in the Title V  
2 permit. Is that --

3 MR. HARRINGTON: In addition, your -- my  
4 understanding is the proposal is to submit the Illinois  
5 rule to the USEPA for approval as part of the federally  
6 enforceable standards in Illinois; isn't that correct?

7 MR. ROSS: That's correct.

8 MR. HARRINGTON: And once it's so approved,  
9 then it is enforceable by USEPA regardless of the Title V  
10 permit; is that correct?

11 MR. ROSS: That's correct.

12 MR. HARRINGTON: And if it's enforceable by  
13 USEPA, it continues to be enforceable until and unless  
14 the variance for adjusted standards is approved by USEPA;  
15 isn't that correct?

16 MR. ROSS: That is correct.

17 MR. HARRINGTON: When was the last time an  
18 Illinois variance for adjusted standard was approved by  
19 Region 5 of the USEPA?

20 MR. ROSS: I can't answer that. I'll have  
21 to go back and review. We could probably provide an  
22 answer.

23 MR. HARRINGTON: Are you aware of any that  
24 have been approved as -- by USEPA as amendments to the



1 state of limitation plan?

2 MR. ROSS: No, but me saying that I'm not  
3 aware of any I would say does not carry a lot of weight.

4 MR. ROMAINE: I am aware of these type of  
5 proceedings that have been approved by USEPA.  
6 Unfortunately, I'm not able off the top of my head to  
7 give specifics either.

8 MR. HARRINGTON: It is a long and tedious  
9 process if it occurs at all, is it not?

10 MR. ROSS: That would not surprise me.

11 MR. ROMAINE: It can be. I've been  
12 surprised that some proceedings have moved fairly  
13 quickly.

14 MR. HARRINGTON: And during a period prior  
15 to approval of such a variance in adjusted standard,  
16 citizens can also bring an action under the Clean Air  
17 Act; is that correct?

18 MR. ROSS: I believe that is correct.

19 MR. HARRINGTON: Would this not subject  
20 facilities in Illinois to potential federal and state --  
21 federal and citizen sued enforcement potentially  
22 resulting in shutdowns even though that's not the  
23 Agency's intention?

24 MR. KIM: I'd just like to note --

1 MR. ROSS: I can't answer that.

2 MR. KIM: -- that I don't believe -- as long  
3 as Mr. Ross can answer these questions, I think that's  
4 fine, but obviously with the proviso that Mr. Ross is not  
5 an attorney and is not necessarily going to be as well  
6 versed -- not to say his answers are incorrect, but not  
7 to say that he's going to be well versed in the  
8 intricacies of enforcement.

9 MR. HARRINGTON: And acknowledged, but as  
10 head of the program that we're dealing with here, I think  
11 the background of this rule and what its implications are  
12 is something that obviously would have been considered by  
13 him and his staff and superiors in the Agency, and I  
14 thought it needed to be brought out on the record. Has  
15 the Agency considered -- this follows a question by  
16 Mr. Zabel earlier -- not submitting this rule as a  
17 federally approved rule and maintaining it as a state  
18 only rule and adopting CAMR or something similar to meet  
19 the federal requirements?

20 MR. ROSS: That is a specific question that  
21 is asked coming up.

22 MR. HARRINGTON: Well, we'll proceed to that  
23 question.

24 MR. ROSS: Well, I say coming up with the

1 understanding there are 45 more questions. 50, "If the  
2 operators of the EGUs which installed a halogenated  
3 powdered activated carbon injection before the ESPs in  
4 good faith and in reliance upon the Agency's opinions as  
5 expressed in this proceeding are unable to achieve the  
6 standard set forth in the rule, would you agree that they  
7 should be allowed to continue operating employing such  
8 controls?" We cannot support continuing operation of  
9 EGUs that are not in compliance with the rule. However,  
10 as described in previous answers, we believe the rule  
11 allows for ample flexibility such that compliance of all  
12 EGUs is reasonably attainable. Alternatively,  
13 traditional compliance and enforcement or regulatory  
14 options may be pursued, and of note is that the specific  
15 scenario described is addressed by the TTBS, which allows  
16 for continued operation of a unit that has installed  
17 halogenated ACI prior to a cold-side ESP but such unit is  
18 unable to comply with the standard.

19 51, "As written, would not the requirements of  
20 the proposed regulation be written in the Title V permits  
21 for each of the EGUs?" And yes, that is our intent.  
22 However, several of the Title V permits are under appeal,  
23 and therefore there is -- we have discussed this issue  
24 and we do envision that many of these requirements would

1 appear in construction permits if needed and potentially  
2 in federally enforceable state operating permits.

3 MR. HARRINGTON: Could you read back that  
4 answer, please?

5 (Requested portion read back by the  
6 reporter.)

7 MR. HARRINGTON: Is that federally  
8 enforceable state operating permits?

9 MR. ROSS: Correct, FESOPs.

10 MR. ROMAINE: I just wanted to comment that  
11 we are assuming that you were referring to the adopted  
12 rules. We're not planning to put the proposed rules in  
13 any permits.

14 MR. HARRINGTON: That's -- We understand  
15 that. We hope that's the case. Thank you.

16 MR. ROMAINE: And certainly the rules would  
17 be placed in permits and designated as state-only  
18 enforceable until such time as they were actually adopted  
19 by USEPA as part of Illinois' implementation plan. It  
20 would not be our intent to short-circuit the USEPA's  
21 formal approval program by placing it within the permit.

22 MR. HARRINGTON: Thank you.

23 MR. ROMAINE: In terms of the comment, I  
24 think we -- my opinion is that the state rules are

1 enforceable as state rules when adopted. Eventually they  
2 have to find their way into a Title V or Clean Air Act  
3 Permit Program permit. Given the difficulties with  
4 getting those permits actually effective for coal-fired  
5 power plants, it's possible that we would be relying  
6 simply on their effectiveness through regulation for a  
7 while.

8 HEARING OFFICER TIPSORD: Mr. Zabel?

9 MR. ZABEL: Is it the Agency's view that  
10 construction permits -- state construction permits will  
11 be required for ACI installation?

12 MR. ROMAINE: Could you please repeat the  
13 question?

14 MR. ZABEL: Could you read it back, please?  
15 (Requested portion read back by the  
16 reporter.)

17 MR. ROMAINE: Yes, it is. ACI installation  
18 would constitute installation of an air pollution control  
19 device.

20 MR. ZABEL: And the current regulations  
21 would require a construction permit for that in your  
22 view.

23 MR. ROMAINE: That is correct.

24 MR. ZABEL: Thank you.

1                   MR. ROMAINE: We would attempt to expedite  
2 the issuance of those permits as they facilitate  
3 compliance with this regulation.

4                   MR. ZABEL: What's the average time to act  
5 on a construction permit for pollution control equipment,  
6 Mr. Romaine?

7                   MR. ROMAINE: I don't keep those statistics.  
8 It varies based on the type of control equipment and the  
9 availability of a prior construction permit. Once we  
10 have the first prototype, the timing becomes much  
11 quicker.

12                   MR. ZABEL: How long in advance of the  
13 requirement to have the permit is an application  
14 required?

15                   MR. ROMAINE: Under Section 39(a) of the  
16 Act, we're required to act on applications for  
17 construction permits within 90 days if public notice is  
18 not required.

19                   MR. ZABEL: I think that wasn't my question,  
20 but I appreciate -- that would have been the next one  
21 anyway, but how long in advance of the 90 days that the  
22 Agency has to act on it is the permittee required to  
23 apply for the permit?

24                   MR. ROMAINE: I don't believe that the

1 regulations specify a certain period of time in advance  
2 of that statutory time an applicant is required to apply  
3 for a permit.

4 MR. ZABEL: So a construction permit in  
5 theory could be applied one day before it was needed.

6 MR. ROSS: That would not be wise.

7 HEARING OFFICER TIPSORD: No.

8 MR. ZABEL: I'll stipulate to that answer,  
9 Mr. Ross.

10 MR. ROMAINE: I was using the time clock  
11 rather differently. There's nothing that says an  
12 applicant has to apply one day -- cannot apply one day  
13 before the ninety days with which the Agency is allowed  
14 to turn around the permit application.

15 MR. ZABEL: Did the Agency -- and I don't  
16 know if this is appropriate for you, Mr. Romaine. Did  
17 the Agency consider the permitting time in setting its  
18 timetable for this regulation?

19 MR. ROMAINE: We did not explicitly consider  
20 the permitting time. I think that's because we do not  
21 expect that the permitting time would pose an obstacle to  
22 compliance.

23 HEARING OFFICER TIPSORD: Question number  
24 52?

1                   MR. ROSS:  "In that case, would not the  
2 limits be enforceable by USEPA and by the citizens  
3 independent of the Illinois EPA's decision in the  
4 matter?"

5                   MR. ROMAINE:  Well, once these regulations  
6 are approved by USEPA as part of Illinois' plan, they're  
7 enforceable by USEPA.  Whether or not they're in the  
8 Title V permit does not directly affect USEPA's ability  
9 to enforce those regulations.  It also doesn't affect the  
10 public's ability to enforce those regulations.  The  
11 public has the ability to enforce these regulations under  
12 state law.  Inclusion of the regulations or provisions of  
13 the regulation in the Title V permit would allow the  
14 public to enforce the regulations -- would facilitate the  
15 public's ability to enforce the regulations under federal  
16 law.  However, they would also have that ability under  
17 the state regulations.

18                   HEARING OFFICER TIPSORD:  I'm sorry.  
19 Mr. Zabel?

20                   MR. ZABEL:  On the construction permit  
21 question, there's a new exclusion for pollution control  
22 equipment.  I take it it's the Agency's view that would  
23 not apply to ACI installations?

24                   MR. ROMAINE:  That is correct.  That



1 exclusion does not extend to control systems that are  
2 installed to comply with new regulations, new regulatory  
3 requirements, or in response to enforcement actions.

4 MR. ZABEL: I'm curious why that's  
5 explicitly addressed in the draft -- in the proposed --  
6 in the amendment, the TTBS, wasn't addressed in the  
7 original rule proposal.

8 MR. ROMAINE: I don't understand the  
9 question.

10 MR. ZABEL: The TTBS I believe -- and I have  
11 it in -- right in front of me, Mr. Romaine -- explicitly  
12 states that a construction permit would be required for  
13 someone getting the TTBS, but there's no such statement  
14 one way or the other in the general proposed mercury  
15 rule.

16 MR. ROMAINE: That is correct.

17 MR. ZABEL: Was there some reason for that?

18 MR. ROMAINE: Yes, there was.

19 MR. ZABEL: Which was? We're back in a  
20 deposition.

21 MR. ROMAINE: If a source elects to operate  
22 under the TTBS, an argument could be made that they were  
23 in compliance with the regulation. With the newly  
24 adopted permit exemption, an argument could then be made

1 that a construction permit was not needed for the  
2 installation of the activated carbon injection system.  
3 To avoid that potential series of arguments, it was  
4 decided simply to state that even if a source elected to  
5 install -- or operate through the TTBS, the source would  
6 still have to obtain construction permits for the  
7 installation of activated carbon injection system. I  
8 hope I've got that right.

9 MR. ZABEL: It's 225 something. 225.234 --  
10 oh, dear -- (e)(1)(c), Mr. Romaine. I have it on a page  
11 8, but I'm not sure the pagination of each version of  
12 this is the same, so -- and, I mean, you said you weren't  
13 sure you had it right, so I'm citing it to you to take a  
14 look at and you can verify your last answer.

15 HEARING OFFICER TIPSORD: I also have it on  
16 page 8 of the proposed amendment.

17 MR. ROMAINE: I think I skipped a point in  
18 there that a source operating under the Temporary  
19 Technology Based Standard could propose to install  
20 additional control equipment. The provision that has  
21 been included in the Temporary Technology Based statement  
22 says that a construction permit would be required for  
23 that additional control equipment notwithstanding the  
24 fact that such a source would be in compliance based upon

1 its reliance upon the Temporary Technology Based  
2 Standard.

3 MR. ZABEL: Could you read that back? I  
4 don't think I understood that, which wouldn't surprise  
5 me.

6 (Requested portion read back by the  
7 reporter.)

8 MR. ZABEL: I guess the phrase "additional  
9 control equipment" in that answer confused me,  
10 Mr. Romaine. What were you referring to?

11 MR. ROMAINE: I was considering a scenario  
12 situation where a source operating a unit under a  
13 Temporary Technology Based Standard elected to install  
14 additional control techniques to facilitate compliance  
15 with the emission standards in the proposed regulation.

16 MR. ZABEL: But if I understood your earlier  
17 question, someone applying for the installation of ACI  
18 not seeking the TTBS would have to get a construction  
19 permit; is that correct?

20 MR. ROMAINE: That's correct.

21 MR. ZABEL: And so if he's applying -- if  
22 he's installing additional equipment at this point to  
23 come into compliance with that rule, why would that have  
24 been any different?

1                   MR. ROMAINE: The scenario that's -- or the  
2 set of circumstances that's being addressed under  
3 225.234(e) is a source that is operating under the  
4 Temporary Technology Based Standard. That source is then  
5 evaluating other alternative techniques in addition to  
6 activated carbon injection or in conjunction with  
7 activated carbon injection as part of its efforts to  
8 comply with the numerical emission standards of the  
9 proposed rule. From a compliance perspective, that unit  
10 would hopefully be in compliance based upon its reliance  
11 on the Temporary Technology Based Standards  
12 notwithstanding the fact that it was not complying with  
13 the numerical emission standards. However, it would be  
14 taking action with some installation of additional  
15 control device to comply with the numerical emission  
16 standards.

17                   MR. ZABEL: So each evaluation he undertakes  
18 requires a construction permit; is that correct?

19                   MR. ROMAINE: Not necessarily. It would  
20 depend whether the evaluation entails installation of  
21 additional control devices.

22                   MR. ZABEL: If it does, he would require a  
23 construction permit.

24                   MR. ROMAINE: Yes, it would.

1                   MR. ZABEL: And the original question,  
2 setting aside the TTBS, the installation of ACI, just to  
3 come back to the question I believe you've already  
4 answered anyway, requires a construction permit.

5                   MR. ROMAINE: That is correct.

6                   MR. ZABEL: 201.146(hhh) is inapplicable  
7 in --

8                   MR. ROMAINE: That is correct.

9                   MR. ZABEL: Okay.

10                  HEARING OFFICER TIPSORD: Mr. Bonebrake?

11                  MR. BONEBRAKE: And just to follow up,  
12 Mr. Romaine, your view is that the construction permit  
13 exemption regulation that Mr. Zabel just cited would be  
14 inapplicable for the installation of ACI to achieve  
15 compliance with this rule because the rule would be  
16 considered new under the permit exemption; is that  
17 correct?

18                  MR. ROMAINE: That is correct.

19                  MR. BONEBRAKE: And it would be new because  
20 it would be promulgated -- if promulgated after the date  
21 the exemption was promulgated; is that correct?

22                  MR. ROMAINE: I haven't looked at it in  
23 those terms. I believe that the actual -- what I was  
24 actually concerned about when I looked at it, in fact

1 with regard to another project, is that exemption also  
2 refers to proposed regulations. I did not look at it in  
3 terms of the wording for adopted regulations.

4 MR. ZABEL: I have a copy of the regulation  
5 if you'd like to look at it, Mr. Romaine.

6 MR. ROMAINE: I would. Thank you.

7 MR. ZABEL: It's just hhh. It's not the  
8 entire 146. Didn't want to kill a tree to copy the whole  
9 thing.

10 HEARING OFFICER TIPSORD: For the record,  
11 we're looking at 35 Illinois Admin Code 201.146(hhh).

12 MR. ROMAINE: I'm looking at the language  
13 that Mr. Zabel provided for newly adopted permit  
14 exemption, 201.146(hhh). The language that is of  
15 particular relevance is the language in (hhh)(4), which  
16 says that a construction permit would not be required or  
17 replacement or addition of air pollution control  
18 equipment for existing emission units in circumstances  
19 where different state or federal regulatory requirements  
20 or newly proposed regulatory requirements will not apply  
21 to the unit. So the -- one of the criteria to qualify  
22 for this new permit exemption is that different state or  
23 federal regulatory requirements or newly proposed  
24 regulatory requirements do not apply to the particular

1 unit. We would consider that these regulations would be  
2 either different state or federal requirements or newly  
3 proposed federal requirements. Therefore, a construction  
4 permit would be required for the installation of an  
5 activated carbon injection system to comply with these  
6 regulations.

7 MR. ZABEL: Since I had a lot of trouble  
8 with that language, Mr. Romaine, could you give me an  
9 example of when it -- when the exclusion would apply?

10 MR. ROMAINE: The exclusion would not apply?

11 MR. ZABEL: No, no. I'm sorry. Would  
12 apply. Give me a pollution control installation -- pick  
13 one -- I mean, I really don't care what it is -- when you  
14 would not need to get a construction permit; when this  
15 exemption to the exclusion wouldn't make you get a  
16 construction permit.

17 MR. ROMAINE: This exclusion -- This  
18 exception would be possible for somebody that simply  
19 elects to replace a control device that is old and  
20 believes that it's appropriate to install a new control  
21 device to comply with the regulations that it's currently  
22 complying with. It has routinely been relied upon given  
23 the short time span this rule's been in place for  
24 operations at industrial facilities who elect to replace

1 old, outdated baghouses with new models of baghouses.

2 HEARING OFFICER TIPSORD: Ms. Bassi?

3 MS. BASSI: With respect to this number --  
4 or subsection 4 to hhh, how do you define new, newly  
5 proposed?

6 HEARING OFFICER TIPSORD: Ms. Bassi, again,  
7 I understand wanting to get to this point, but we're not  
8 going to belabor what this section means. If you want to  
9 relate it to this rule, that's fine, but we've already  
10 gone astray discussing what this section means. We'll  
11 answer this question but we're not going to belabor this  
12 point.

13 MS. BASSI: Well, let me put it in the  
14 context of this rule. Mr. Romaine, I believe that you  
15 testified a minute ago that this rule would not be  
16 reflected in a current construction permit or -- and by  
17 that I mean one that you would be issuing, say, today or  
18 tomorrow or any time before this rule is promulgated by  
19 the Board. Once the Board has promulgated this rule,  
20 assuming it does, is -- how does newly proposed fit into  
21 that context? I mean, then it's an existing rule.

22 MR. ROMAINE: That's correct. However,  
23 there's also language in the provision that talks about  
24 different state or federal regulatory requirements.



1 MS. BASSI: But it's not a different state  
2 requirement because it's been adopted, and so how does  
3 this --

4 MR. ROMAINE: It would be different from the  
5 ones that were in place before it was adopted.

6 MS. BASSI: Thank you.

7 HEARING OFFICER TIPSORD: Mr. Forcade?

8 MR. FORCADE: Mr. Romaine, I'm assuming if  
9 you were to attempt to install pollution control  
10 equipment to achieve compliance with one of the standards  
11 in the rulemaking that you would need to apply for a  
12 construction permit?

13 MR. ROMAINE: That is my position, yes.

14 MR. FORCADE: Would you be able to construct  
15 the equipment before you got the permit?

16 MR. ROMAINE: Not in compliance.

17 MR. FORCADE: What is your definition of  
18 commenced construction? What would you be allowed to do  
19 and not allowed to do prior to the issuance of your  
20 permit?

21 MR. ROMAINE: When I'm asked those  
22 questions, I always get out the rules and quote back the  
23 definition of commenced construction. I don't have the  
24 entire board regulations with me.

1                   MR. FORCADE: Well, is it your recollection  
2 and belief that you would be able to order the equipment?

3                   MR. ROMAINE: I know that the Agency has not  
4 pursued a course of action against people that have  
5 ordered equipment but have not undertaken the actual  
6 installation of the equipment.

7                   MR. FORCADE: Would you be able to do more  
8 than simple grading on the site preparation issue?

9                   MR. KIM: To the extent these questions are  
10 not necessarily limited to this rule, but this -- I mean,  
11 Mr. Forcade's question could be applied to any potential  
12 enforcement case involving a construction permit  
13 situation.

14                   HEARING OFFICER TIPSORD: Mr. Forcade?

15                   MR. FORCADE: No, my issue goes entirely to  
16 the issue of timing. If we're going to have an  
17 obligation from the date this rule is finally adopted,  
18 assuming it's adopted in the form the Agency's proposed,  
19 until December -- July two thousand --

20                   MR. HARRINGTON: Nine.

21                   MR. FORCADE: No, no, I'm talking about the  
22 application for the Title V permit. I want to know in  
23 that window what steps can be taken at what point in  
24 time, so it's directly related to this rule and unrelated

1 to enforcement. I want to know what you can legally do  
2 and not legally do in what time frame in order to achieve  
3 compliance under the obligations of the rule.

4 MR. KIM: Before Mr. Romaine answers, I'm  
5 going to again qualify his answer that what you're asking  
6 about -- and I'm not saying it's not a valid question,  
7 but it's -- you're posing a potential enforcement  
8 scenario, and on behalf of the Agency, I think we're very  
9 reluctant to commit to anything, especially in the  
10 context of a rulemaking hearing, exactly what we will or  
11 will not do in terms of an enforcement proceeding because  
12 nobody here is empowered to speak on behalf of the Agency  
13 and give you a commitment as to what we will or will not  
14 do in terms of potential enforcement. I mean, we -- with  
15 that qualification, you can ask Mr. Romaine what his  
16 interpretation is, I suppose, but I just want to make  
17 clear we're not making any kind of compliance -- or  
18 enforcement commitments prospectively in this context or  
19 in any other situation like this.

20 HEARING OFFICER TIPSORD: Okay.

21 MR. ROMAINE: As I said, I first refer  
22 people back to the regulation, then I discuss specific  
23 circumstances with them. My general advice at this time  
24 is comply with the permit application as soon as possible

1 and the Agency will do everything possible to accommodate  
2 sources to make sure that the permitting process does not  
3 stand in the way of actions that are necessary to come  
4 into compliance with the proposed regulation.

5 MR. FORCADE: So could you rewire the  
6 electrical? I mean, I'm trying to pursue a point which I  
7 don't seem to be getting an answer to, which is what are  
8 the things you can do prior to the issuance of the Agency  
9 permit?

10 MR. ROMAINE: Well, I guess theoretically  
11 speaking, would the rewiring of that electrical system be  
12 necessary for purposes other than compliance with the  
13 regulation? Can you come up with an argument on behalf  
14 of your client that suggests that that is an activity  
15 that they would be doing irrespective of the need to make  
16 changes to comply with this regulation?

17 MR. FORCADE: Assuming that they were not,  
18 am I correct that your answer would be you would not be  
19 allowed to do that without a construction permit?

20 MR. ROMAINE: You have just answered that  
21 yourself on behalf of your client.

22 MR. FORCADE: No, I haven't. I've asked you  
23 a question and I would appreciate an answer. Would it be  
24 correct in your view that if you could not make a case

1 for the electrical being redone for any purpose other  
2 than installation of this particular piece of pollution  
3 control equipment, would you be allowed to do that?

4 MR. KIM: Again, I -- before he answers,  
5 this is not getting to anything that's going to be  
6 relevant to this proceeding. We're asking about a  
7 specific scenario that somewhere down the road someone's  
8 going to get a piece of the transcript and say, oh, no,  
9 the Agency said you cannot sue us or you will not -- it's  
10 not constructive for this case. It's not helpful here  
11 and it's inappropriate to ask us, again, what we will or  
12 will not do in an enforcement proceeding potentially  
13 somewhere down the road.

14 HEARING OFFICER TIPSORD: Well, and if I  
15 may, I think that there's legitimate concern here  
16 concerning the timing of the effective date of the  
17 rule -- and I see where you're going with that -- the  
18 effective date of the rule and the amount of time you're  
19 going to have to apply for a construction permit that you  
20 may be required to have. What I'm going to suggest at  
21 this point is that Mr. Romaine will be testifying in the  
22 context of what the rule means and that perhaps we can  
23 better get at these issues in the context of the actual  
24 rule since that's one of the things he said he would rely

1 on, so, Mr. Forcade, if you wouldn't mind if we could  
2 hold these off, and let's continue with Ameren's  
3 questions at this point and we'll discuss them when we're  
4 actually looking at the context of the rule itself.

5 MR. FORCADE: That's fine.

6 HEARING OFFICER TIPSORD: And if I'm not  
7 mistaken, I believe that 53 and 54 have already been  
8 answered.

9 MR. ROSS: 53 I don't believe has been --

10 MR. HARRINGTON: I think those have been  
11 answered.

12 HEARING OFFICER TIPSORD: I think we've  
13 answered them about incorporating into the federally  
14 enforceable, yeah. And then question number 55?

15 MR. KIM: Can I instruct the witness never  
16 to disagree with you when you say the question's been  
17 answered?

18 MR. ROSS: I apologize. I apologize.

19 HEARING OFFICER TIPSORD: And at this point,  
20 since this question is specifically about Mr. Romaine's  
21 testimony, we probably need to enter his testimony into  
22 the record.

23 MR. KIM: Sure.

24 HEARING OFFICER TIPSORD: And we are going

1 to be admitting it as Exhibit No. 36, and we are  
2 admitting the testimony that's revised which was filed on  
3 April 28, I believe --

4 MR. KIM: Correct.

5 HEARING OFFICER TIPSORD: -- as Exhibit  
6 No. 36.

7 MR. BONEBRAKE: Madam Hearing Officer, did  
8 you admit the --

9 HEARING OFFICER TIPSORD: I did not, because  
10 it's part of the Administrative Code, so I did not admit  
11 it as an exhibit. We identified it for the record. If  
12 there's no objection, this will be admitted as Exhibit  
13 36. Seeing none, this is marked as Exhibit 36. Okay.  
14 Then, Mr. Romaine, you can go ahead and read question 55  
15 and answer it, please.

16 MR. ROMAINE: "As set forth as page 3 of  
17 Mr. Romaine's revised testimony, is it not correct that  
18 the earliest date that the first formal determination of  
19 compliance with these standards can occur is July 1,  
20 2010?" Answer, yes, this is correct, because compliance  
21 is determined on a 12-month rolling basis. The earliest  
22 date that 12 months of data would be available to  
23 formally determine compliance for an existing unit would  
24 be July 1, 2010, 12 full months after July 1, 2009. At

1 the same time, since emission monitoring must begin by  
2 January 1, 2009, existing sources should have a  
3 significant body of data to assess their expected  
4 compliance status well in advance of July 1, 2010.

5 56, "If at that time it is first determined that  
6 a facility is not in compliance, what penalties would it  
7 be subject to?" A facility/source would be subject to  
8 the usual enforcement procedures set forth in Section 31  
9 of the Act with penalties sought based on the nature and  
10 gravity of noncompliance. However, as has been described  
11 in other testimony, the proposed rule contains a number  
12 of regulatory options by which a source can show  
13 compliance.

14 HEARING OFFICER TIPSORD: 57?

15 MR. ROMAINE: 57.

16 HEARING OFFICER TIPSORD: Excuse me.

17 Mr. Harrington has a follow-up.

18 MR. HARRINGTON: Am I correct that the  
19 technology -- strike that. Is it not correct that the  
20 removal or emission levels or emission standards set  
21 forth in this rule are intended to be at the limits of  
22 technology, to be achievable but not -- to be a stretch?

23 MR. ROSS: I believe we previously described  
24 them as aggressive.



1                   MR. HARRINGTON: Aggressive. So one could  
2 go through 360 days of the year and be on the cusp of  
3 compliance throughout that time and still not know  
4 whether you were going to comply on the 365th day; is  
5 that not correct?

6                   MR. ROMAINE: That's theoretically possible.  
7 I think that's unlikely.

8                   MR. HARRINGTON: Would you think people  
9 would be operating at 95 percent removal or are they more  
10 likely be operating at 89.9 and 90.1 percent removal?

11                   MR. ROSS: I think our perspective is it  
12 would be hoped that they would be operating at a  
13 comfortable margin above the compliance requirements, but  
14 that would be up to the planning and strategy of each  
15 individual source.

16                   MR. HARRINGTON: We will get to the  
17 technology, but if in fact the data establishes that for  
18 the technologies posited in the Technical Support  
19 Document that at their best they were operating at the  
20 margin of 90 percent compliance, would not the scenario I  
21 posited be more likely?

22                   MR. ROSS: As you state, we will be  
23 discussing that in detail on Section 8, but there are --  
24 there is test data which shows and there are scenarios

1 where a high level of mercury reduction can be achieved,  
2 and there are also test data that show your scenario, so  
3 certainly it's a topic for debate.

4 MR. HARRINGTON: We'll get to that later.

5 HEARING OFFICER TIPSORD: Moving on, then.

6 MR. ROMAINE: 57, "If that is the first date  
7 a facility is determined not to be in compliance, would  
8 it be considered that there are 365 days of violation?"  
9 Yes.

10 58, "Would it be prudent for a company to rely  
11 upon questionable technology to meet such limits in light  
12 of the consequences of the failure to achieve  
13 compliance?" Response: I believe it's never prudent for  
14 a source to rely on questionable technology to meet its  
15 environmental obligations. However, the Agency disagrees  
16 with the suggestion in this question that the use of  
17 activated carbon injection or co-benefits for control of  
18 mercury emissions is questionable technology.

19 HEARING OFFICER TIPSORD: Question number  
20 59.

21 MR. ROMAINE: "Is it correct that the  
22 Illinois EPA has made no independent determination of the  
23 availability and accuracy of continuous emission monitors  
24 for measuring mercury and the flue gas?"

1                   MR. HARRINGTON:  Should be "in the flue  
2 gas," obviously.  I apologize.

3                   MR. ROMAINE:  Response:  Agency staff have  
4 reviewed material prepared by USEPA as part of its  
5 rulemaking for CAMR but have not made an independent  
6 status -- study of the status of continuous monitoring  
7 technology for mercury emissions.  That said, since the  
8 emissions monitoring requirements in the proposed rule  
9 are essentially identical to those in CAMR, the proposed  
10 rule would not impose monitoring requirements that are  
11 more burdensome or stringent than CAMR.

12                  HEARING OFFICER TIPSORD:  Mr. Romaine, you  
13 need to slow down when you're reading your responses.  
14 Question 60.

15                  MR. ROMAINE:  "If not" --

16                  HEARING OFFICER TIPSORD:  I'm sorry.  
17 Mr. Harrington?

18                  MR. HARRINGTON:  I try not to anticipate  
19 some of the following questions, but do you know whether  
20 USEPA's proposed technologies were designed to have the  
21 level of accuracy necessary to measure compliance with  
22 this rule?

23                  MR. ROMAINE:  I believe that the monitoring  
24 technologies that USEPA is relying upon for CAMR would

1 also be suitable for the proposed rule.

2 MR. HARRINGTON: Thank you.

3 HEARING OFFICER TIPSORD: Mr. Zabel?

4 MR. ZABEL: The risk of inaccuracy is quite  
5 different in a command and control than in a cap and  
6 trade rule, is it not, Mr. Romaine?

7 MR. ROMAINE: Yes, it is.

8 MR. ZABEL: In a cap and trade, if that  
9 inaccuracy showed a 365-day violation, the source could  
10 buy allowances to avoid the penalties; is that not true?

11 MR. ROMAINE: That is true.

12 MR. ZABEL: And there's no safe harbor under  
13 the command and control rule, is there?

14 MR. ROMAINE: There may not be a safe harbor  
15 under the command and control rule; however, we have  
16 developed this regulation now that we've included  
17 Temporary Technology Based Standard to include a safe  
18 harbor.

19 MR. ZABEL: But the question is, if the  
20 monitor has some degree of inaccuracy and shows a  
21 violation for a source that didn't get a TTBS, it's in  
22 violation and there's no safe harbor for it at that 365th  
23 day in July of 2010, is there?

24 MR. ROMAINE: That is correct.

1 MR. ZABEL: Thank you.

2 HEARING OFFICER TIPSORD: Question?

3 MS. BASSI: Well, I was just going -- the --  
4 in order to take advantage of the TTBS, would -- is it  
5 correct to state that one would have to apply for it  
6 prospectively as opposed to saying what one's emissions  
7 are and then apply for the TTBS and have it apply  
8 retroactively?

9 MR. ROMAINE: That is correct.

10 MS. BASSI: Thank you.

11 MR. ROMAINE: 60, "If not, what such study  
12 has been performed?" As I've explained, USEPA and others  
13 have evaluated and continued to evaluate continuous  
14 monitoring technology for mercury emissions. Agency  
15 staff have reviewed and will continue to review material  
16 released by USEPA and others documenting this work.

17 HEARING OFFICER TIPSORD: Question 61.

18 MR. ROMAINE: "Are you aware of the current  
19 studies being performed by USEPA and its contractors to  
20 determine the accuracy and precision of continuous  
21 emission monitors for mercury?" It is my understanding  
22 that USEPA's work is targeted at improving continuous  
23 monitoring methodology, not assessing the current level  
24 of monitoring technology. It appears that USEPA is

1 particularly interested in assuring that traditional  
2 emissions monitoring systems which provide real-time  
3 emission data are available for CAMR as well as sorbent  
4 trap systems, which do not provide such immediate data  
5 since collected samples must be sent off to a laboratory  
6 for analysis.

7 HEARING OFFICER TIPSORD: Mr. Harrington?

8 MR. HARRINGTON: Just for the record, would  
9 you explain the difference between those two for the  
10 Board, please?

11 MR. ROMAINE: Under this rule and under  
12 CAMR, USEPA has basically followed two very different  
13 types of approaches to monitoring of mercury. One type  
14 of monitoring device is what I would call the traditional  
15 type of continuous emission monitoring device where an  
16 instrument is placed in the stack, provides instantaneous  
17 or essentially instantaneous feedback on levels of  
18 mercury emissions in the stack similar to the types of  
19 technology that is used for monitoring for sulfur  
20 dioxide, nitrogen oxides, carbon monoxide emissions,  
21 though it's not for the opacity, where there is in fact  
22 minute-by-minute, 15-minute by 15-minute or hourly data  
23 for the emissions of the pollutant from the unit.

24 Under CAMR, the proposed rule, USEPA -- well,

1 under CAMR, USEPA has also allowed the use of sorbent  
2 trap technology. A sorbent trap is a device that removes  
3 mercury from an extracted gas stream from the stack and  
4 measures the amount of mercury in that particular sample.  
5 That sample collects mercury for a period of time, a  
6 couple of days, maybe longer, and then that sample is  
7 then sent off to the laboratory to measure the amount of  
8 mercury that was collected on the trap during that period  
9 of time. The data for mercury emissions is only  
10 available when the analysis of the trap is conducted, so  
11 it does not provide immediate feedback. It provides  
12 periodic data on some frequency for the amount of mercury  
13 that has been emitted since the last trap was sent for  
14 analysis.

15 MR. HARRINGTON: How would the sorbent trap  
16 methodology be utilized in connection with the proposed  
17 IEPA rule?

18 MR. ROMAINE: The sorbent trap would be used  
19 to determine emission data, massive emissions into the  
20 atmosphere, in a manner similar to use -- in a manner  
21 similar to that for which a more traditional continuous  
22 emission monitor would be used.

23 MR. HARRINGTON: Would that sampling have to  
24 be low proportional to the flow of the flue gas?

1                   MR. ROMAINE: I think the answer is yes, you  
2 have to carefully correlate the amount of flue gas that  
3 is passed through the trap with this amount of flue gas  
4 that is coming out of the unit.

5                   MR. HARRINGTON: Would you do this on a  
6 daily basis, like, take a sample every day and have it  
7 analyzed?

8                   MR. ROMAINE: I'm not aware of what  
9 frequency is required for sorbent trapping, but the  
10 literature I was looking at suggested a couple of days.  
11 It might be possible for doing it for longer periods of  
12 time. One of the concerns is obviously not exceeding the  
13 absorption capacity of the actual trapping medium, and as  
14 you mentioned, another concern is making sure that you  
15 maintain appropriate accuracy of the data relative to the  
16 stack flow.

17                   MR. HARRINGTON: And then the sorbent has to  
18 be sent off to an independent laboratory or a laboratory  
19 for analysis; is that correct?

20                   MR. ROMAINE: That is correct.

21                   MR. HARRINGTON: Do you know how long such  
22 analysis takes when it's sent off?

23                   MR. ROMAINE: I don't know in particular how  
24 long it takes. USEPA has expressed concern that there is



1 certainly a lag time for analysis of those samples.  
2 Accordingly, a source using sorbent trap technology is  
3 not getting immediate feedback on the levels of emission  
4 of mercury coming out. They may not find out that  
5 information for a couple of weeks after the emissions  
6 have actually occurred.

7 MR. HARRINGTON: Do we know how many  
8 laboratories in or about Illinois are qualified to  
9 perform this analysis?

10 MR. ROMAINE: I do not know that.

11 MR. HARRINGTON: Do you know whether they  
12 would have the capacity to accommodate all of the  
13 facilities that would be subject to this rule?

14 MR. ROMAINE: I don't know that either. I  
15 would expect that if all the facilities subject to this  
16 rule elect to go with sorbent trap technology or  
17 monitoring technology that there would be laboratories  
18 that would be interested in their business, but I don't  
19 have anything specific at this point about capabilities  
20 of existing laboratories.

21 MR. HARRINGTON: Do you have any idea what  
22 the cost would be?

23 MR. ROMAINE: I have general ideas about the  
24 cost of monitoring as provided by USEPA in their

1 evaluation of technology. The cost for sorbent trap  
2 technology according to USEPA is somewhat higher than  
3 continuous emission monitoring data based on the  
4 information I saw. I don't know if it's changed  
5 recently.

6 MR. HARRINGTON: Now, with respect to  
7 continuous emission monitors, is it your understanding  
8 USEPA is presently doing studies to determine which, if  
9 any, of these will be appropriate for monitoring for  
10 CAMR?

11 MR. ROMAINE: I would not characterize it  
12 that way, no.

13 MR. HARRINGTON: How would you characterize  
14 it?

15 MR. ROMAINE: I would characterize it as  
16 USEPA working with the manufacturers of monitors to  
17 assure that there are monitors available for  
18 implementation of CAMR.

19 MR. HARRINGTON: Do you know if they are  
20 looking at whether these monitors will have the necessary  
21 levels of detection, accuracy, precision, variability, to  
22 be used in connection with the Illinois rule?

23 MR. ROMAINE: USEPA is focusing on making  
24 sure that the monitoring is available for the

1 implementation of CAMR. It's my position that the types  
2 of monitoring used for CAMR would also be suitable for  
3 use with Illinois' proposed rule, and USEPA is certainly  
4 working to make sure that there are monitoring  
5 methodologies that can be used. That involves I think  
6 both improvements to the monitoring methodology and it  
7 could eventually involve changes to other aspects of the  
8 regulations that are found in 40 CFR, Part 75, Subpart I.

9 MR. HARRINGTON: That's the monitoring and  
10 testing provisions of the federal rule?

11 MR. ROMAINE: That is correct.

12 MR. HARRINGTON: Are those provisions --  
13 Have you looked at those provisions and determined  
14 independently that they're appropriate for monitoring  
15 under the proposed Illinois regulation?

16 MR. ROMAINE: No, I have not.

17 MR. HARRINGTON: Would you expect those  
18 provisions to be followed for any monitoring in Illinois?

19 MR. ROMAINE: Yes, I would.

20 MR. HARRINGTON: Do you know if anyone else  
21 at the Agency has examined those provisions and the  
22 devices that are available to determine independently  
23 that they're suitable for monitoring compliance with the  
24 proposed Illinois rule?

1                   MR. ROMAINÉ: I'm not aware that any such  
2 evaluation has been performed as you've described it. As  
3 I've said, Agency staff, they're involved in continuous  
4 emission monitoring, are tracking what USEPA is doing  
5 with regard to the development of monitoring technology  
6 for implementation of CAMR.

7                   MR. HARRINGTON: If those devices -- and I'm  
8 modifying -- sort of been modifying a couple of questions  
9 in light of these answers. If those devices are not  
10 precise and accurate at the levels of which monitoring  
11 would be needed under the Illinois rule, would you agree  
12 that that then presents a significant problem with this  
13 proposed regulation?

14                   MR. ROMAINÉ: That's proposing a  
15 hypothetical situation that I don't believe to be the  
16 case. I believe that the needs of Illinois' rules are  
17 identical -- of the proposed rule are identical to those  
18 of CAMR.

19                   MR. HARRINGTON: If the evidence in this  
20 proceeding should demonstrate to the contrary, would you  
21 change your opinion?

22                   MR. ROMAINÉ: If evidence demonstrates  
23 something to the contrary, I'm always open to changing my  
24 opinion.

1                   MR. HARRINGTON:  It's -- I have heard it  
2 suggested that the monitors have as much as a 20 percent  
3 bias either high or low but that it cannot be determined  
4 which in any individual case.  Have you heard such  
5 information?

6                   MR. ROMAINE:  I have not heard such  
7 information, so I'm not able to comment on that.

8                   MR. HARRINGTON:  If that were the case,  
9 would it significantly impact the ability to monitor  
10 compliance with the Illinois rule?

11                  MR. ROMAINE:  I'm not sure.  First, the  
12 Illinois rule is based on a 12-month rolling average, so  
13 that has an effect on the role of variability in  
14 monitoring data.  It assumes a bias exists.  That's  
15 different than variability, and I believe that USEPA's  
16 concern as part of implementation of CAMR is to make sure  
17 that there is not the type of bias that you're  
18 hypothesizing would exist.  And finally, the types of  
19 circumstances that you've described theoretically are  
20 things that could have theoretically existed when USEPA  
21 adopted or the congress adopted the acid rain program for  
22 SO2 and NOx emissions and have not been found to be of  
23 concern, and in fact, monitoring technology has come up  
24 and been able to meet the regulatory demands that are put

1 on it.

2 MR. HARRINGTON: And again, to refer to  
3 Mr. Zabel's earlier question, both the acid rain program  
4 and the NOx program are trading programs, are they not,  
5 where companies have other options to come into  
6 compliance if they find that the calculations show them  
7 to be over their limit?

8 MR. ROMAINE: No.

9 MR. HARRINGTON: You said they're not  
10 trading programs?

11 MR. ROMAINE: I'm being very precise. Under  
12 the acid rain program, the SO2 requirements for a trading  
13 program, the NOx control requirements allowed for  
14 averaging but they were not a trading program. Obviously  
15 the NOx trading program is a trading program.

16 MR. HARRINGTON: I believe that takes us  
17 through question 65. I believe some of these additional  
18 questions may have been answered earlier, but there may  
19 be some additional follow-up on the sampling for the  
20 coal.

21 HEARING OFFICER TIPSORD: All right. Let's  
22 take a short break and let you guys take a look at that  
23 and see where you want to be.

24 (Brief recess taken.)

1 HEARING OFFICER TIPSORD: All right. I  
2 believe we were going to go to question number 66.

3 MR. KIM: Before we -- I'm sorry. Before we  
4 proceed, I just have a request. Jeff Sprague was  
5 identified as a person on this panel, but he's been  
6 pretty quiet for a while and he doesn't have any -- he  
7 will not be answering any of the questions here today of  
8 the Ameren general questions, so unless there's an  
9 objection by anybody, I'd like to be able to cut him  
10 loose from the panel.

11 MR. HARRINGTON: No objection.

12 MR. KIM: Thank you.

13 HEARING OFFICER TIPSORD: And,  
14 Mr. Harrington, you had raised your hand about question  
15 66?

16 MR. HARRINGTON: Actually, I dropped back on  
17 the question for the -- is this on?

18 HEARING OFFICER TIPSORD: Uh-huh.

19 MR. HARRINGTON: Okay. A question on the  
20 monitoring of mercury in the flue gas. It's been called  
21 to my attention that the plus or minus 20 percent  
22 variation in continuous emission monitors from true value  
23 is actually the USEPA quality control standard for  
24 certification of such monitors. Are you familiar with

1 that?

2 MR. ROMAINE: Yes and no.

3 MR. HARRINGTON: Explain, please.

4 MR. ROMAINE: I'm aware of the performance  
5 specifications for continuous emission mercury monitors,  
6 but the performance specification does not address  
7 variation from true values.

8 MR. HARRINGTON: Would you explain what the  
9 performance specification does address?

10 MR. ROMAINE: Performance specification is  
11 the measure of the difference in measured values between  
12 a continuous emission monitor and a reference method.

13 MR. HARRINGTON: And the reference method in  
14 this case?

15 MR. ROMAINE: That's a good question. I'm  
16 not sure what the reference method is. One of the things  
17 that I believe USEPA is working on is to refine the  
18 reference method that would be used in conjunction with  
19 continuous mercury monitoring.

20 MR. HARRINGTON: And I think the supposition  
21 behind your answers is that the reference method also  
22 won't necessarily represent a true value.

23 MR. ROMAINE: That is correct.

24 MR. HARRINGTON: Has the Agency made any



1 attempt to calculate what the concentration of mercury in  
2 the flue gas would be for someone typically getting the  
3 0.008 pounds per gigawatt hour standard?

4 MR. ROSS: If I'm getting the question  
5 right, have we made any calculation of what the  
6 concentration of mercury would be in the flue gas to meet  
7 the 0.008 pounds per gigawatt hour?

8 MR. HARRINGTON: Correct.

9 MR. ROSS: Not above and beyond that the  
10 concentration would need to be such that it would be in  
11 compliance. We haven't done any specific calculations.  
12 I mean, that provision was added for flexibility purposes  
13 as a benefit to power plants to provide them with  
14 additional options to comply with the regulation. We  
15 haven't gone above and beyond that level of thinking, I  
16 believe.

17 MR. HARRINGTON: Well, going back to the  
18 public hearing, was it not explained at the public  
19 hearings that the 0.008 pounds per gigawatt hour was an  
20 attempt to calculate what 80 percent removal would be,  
21 taking into account -- 90 percent removal, taking into  
22 account the benefits of washing coal so that supposedly  
23 the actual emissions per ton of coal would be about the  
24 same whether it was from washed bituminous coal or PRB

1 coal so you got credit for that washing?

2 MR. ROSS: That's correct. We established a  
3 lower bound and an upper bound and then we picked a  
4 parameter in between those bounds that the calculations  
5 that we did showed that we were providing some level of  
6 credit for coal washing, correct. I think it was 47  
7 percent mercury reduction pre-combustion.

8 MR. HARRINGTON: So from that, one could  
9 assume that the concentrations in flue gas from either  
10 somebody meeting the 90 percent removal requirement and  
11 somebody meeting the 0.008 pound per gigawatt requirement  
12 would be the same on the same type of facilities,  
13 roughly. I mean, not with great precision, but --

14 MR. ROSS: Well, there's many variables in  
15 there, so I don't know if that's necessarily the case.

16 MR. HARRINGTON: Would a value of 0.8  
17 micrograms per cubic meter be a realistic value for what  
18 the flue gas would be from a system meeting the  
19 requirements of the proposed Illinois rule at either 90  
20 percent removal or 0.008 pounds per gigawatt?

21 MR. ROMAINE: I have not done the  
22 calculations or done the investigation to confirm the  
23 reasonableness of that number.

24 MR. HARRINGTON: Assuming for a moment that

1 number is the correct range, what would be the effect if  
2 a mercury continuous emission monitor or other monitoring  
3 system had an accuracy of one microgram per -- plus or  
4 minus one microgram per cubic meter?

5 MR. ROMAINE: It would make it impossible to  
6 determine compliance with that particular emission  
7 standard as a practical matter.

8 MR. HARRINGTON: Thank you. Going back to  
9 the coal sampling, we touched on this earlier, but I do  
10 have some additional questions.

11 HEARING OFFICER TIPSORD: Okay.

12 MR. HARRINGTON: Do you know what the  
13 requirements or capabilities of the analytical  
14 laboratories would be to conduct accurate mercury  
15 analysis on coal?

16 MR. ROMAINE: As the question has been  
17 phrased, no. It's our belief that there are laboratories  
18 available that can conduct appropriate evaluations for  
19 the mercury content of coal. Analysis of the composition  
20 of coal is frequently done. The USGS and the Illinois  
21 State Geological Survey routinely conduct analyses for  
22 mercury content of coal. We are not concerned about the  
23 inability of laboratories to conduct analyses for the  
24 mercury content of coal.

1                   MR. HARRINGTON:  Are you aware of how many  
2 laboratories in Illinois would be certified to conduct  
3 such analyses?

4                   MR. ROMAINE:  I'm not aware of that, no.

5                   MR. HARRINGTON:  Are you aware of -- Can you  
6 identify any public laboratories that are certified to  
7 conduct such analyses?

8                   MR. ROMAINE:  There may be Agency staff that  
9 can do that.  I can't do that.

10                  MR. HARRINGTON:  And if there is such an  
11 answer, we'd appreciate receiving it maybe later in the  
12 proceedings.  Do you know what the cost per sample for  
13 mercury analysis of coal is?

14                  MR. ROMAINE:  Based on our investigations,  
15 we've come up with a typical value or cost of \$70 per  
16 sample.

17                  MR. HARRINGTON:  Was that through surveying  
18 laboratories in Illinois?

19                  MR. ROMAINE:  That was from discussions with  
20 one particular laboratory, and I think we also contacted  
21 or found a very useful reference, was Dennis Laudal at  
22 the University of North Dakota, who has done a lot of  
23 work in measurement of mercury emissions and analysis of  
24 coal.

1                   MR. HARRINGTON:  Has the IEPA considered the  
2  number of redundant and/or duplicate samples necessary to  
3  ensure the reliability of the results?

4                   MR. ROMAINE:  Only in a broad sense.  
5  Because this rule would have an annual compliance time  
6  period, we are requiring as proposed that there be 365  
7  samples of coal for mercury.  We believe that's an  
8  adequate number of samples to get reliable data.

9                   MR. HARRINGTON:  And the duplicate samples  
10 would not be required?

11                   MR. ROMAINE:  We have not specified  
12 requirements for duplicate samples.  Obviously, if a  
13 source elects to take additional samples to improve what  
14 it believes is the reliability or accuracy of the mercury  
15 content of the coal supply, nothing in the rule would  
16 preclude that.

17                   MR. HARRINGTON:  Do you know what the  
18 turnaround time for analysis of coal is --

19                   MR. ROMAINE:  No, I don't.

20                   MR. HARRINGTON:  -- for mercury?  And do you  
21 know what the expected range of concentrations of mercury  
22 in coal would be both for Illinois coal and for Powder  
23 River Basin coal?

24                   MR. ROMAINE:  I don't have that off the top

1 of my head. We had information, I believe, in the record  
2 that discusses the mercury content for Illinois coal and  
3 the mercury content for Powder River Basin coal.

4 MR. HARRINGTON: Call your attention to  
5 Table 8.5 on page 153 of the Technical Support Document.  
6 Are you familiar with this table?

7 MR. ROMAINE: Yes, I am.

8 MR. HARRINGTON: Does anyone on the panel  
9 know who prepared it?

10 MR. ROSS: I believe Dr. Staudt prepared  
11 this table.

12 MR. HARRINGTON: So that would be  
13 appropriate to ask questions of him about the table?

14 MR. ROSS: Yes.

15 MR. HARRINGTON: Okay. We'll reserve those  
16 questions.

17 HEARING OFFICER TIPSORD: Are we ready for  
18 question 69, then?

19 MR. HARRINGTON: Yes, we are. I am.

20 MR. ZABEL: Madam Hearing Officer?

21 HEARING OFFICER TIPSORD: Yes, Mr. Zabel?

22 MR. ZABEL: We've had some questions on the  
23 coal sampling provision of the rule. We had an issue  
24 concerning my use of a construction permit that's been

1 issued by the Agency this morning. I would like to  
2 follow up with Mr. Romaine on that at this point, but I  
3 don't want to do that without possibly addressing the  
4 concern you raised.

5 HEARING OFFICER TIPSORD: Well, I just  
6 caution you that if it is a permit that may be appealed  
7 to the Pollution Control Board, any issues that -- I  
8 mean, you risk the possibility of putting forth something  
9 that might cause the board members to recuse themselves  
10 from hearing it. You know, I just --

11 MR. ZABEL: I'd like to address that just to  
12 be sure that our view of that is clear on the record,  
13 because I don't think it would require any recusal at  
14 all. This is a public record under oath, which the Board  
15 can take notice of its own records.

16 HEARING OFFICER TIPSORD: I understand that.  
17 I just know that I have recently been involved in a  
18 rulemaking where the questioning became -- and that's why  
19 I said I know you're aware of this, but where I had to  
20 caution participants many, many times about getting into  
21 details that were not a part of the public record or part  
22 of -- so it's just a cautionary statement.

23 MR. ZABEL: We'll say on the record and it's  
24 always been my view in board proceedings that they can

1 take judicial notice of their own records, particularly  
2 matters that are under oath in public.

3 HEARING OFFICER TIPSORD: And that's fine.  
4 I just wanted to give you the cautionary language. I --

5 MR. ZABEL: I appreciate it.

6 Mr. Romaine, are you familiar with a permit  
7 issued to the Vermilion Power Station May 30, 2006?

8 MR. ROMAINE: Yes, I am. I happen to have a  
9 copy of it in front of me.

10 MR. ZABEL: Good. I won't have to give you  
11 one. Would you turn to Section 1.9-1 of that permit?

12 HEARING OFFICER TIPSORD: I will mark this  
13 as Exhibit No. 37 if there's no objection. Seeing none,  
14 this will be Exhibit No. 37.

15 MR. ZABEL: Can you describe the permit for  
16 me, Mr. Romaine?

17 MR. ROMAINE: This is a construction permit  
18 that addresses a supplemental environmental project that  
19 Dynegy is undertaking at its Vermilion power plant  
20 pursuant to a consent decree entered into with USEPA and  
21 other parties.

22 MR. ZABEL: And what equipment is going to  
23 be installed under this permit?

24 MR. ROMAINE: This permit authorizes the



1 construction of a baghouse and an activated carbon  
2 injection system.

3 MR. ZABEL: And on -- in the section to  
4 which I referred you, which is page 7 -- well, before  
5 that. Strike that. I think you indicated in answer to a  
6 question by Mr. Harrington that the Agency thought 365  
7 samples are enough to determine mercury input, it would  
8 be, I assume; is that correct?

9 MR. ROMAINE: That is correct in the context  
10 of the proposed rule.

11 MR. ZABEL: And this permit in question was  
12 not issued in the context of the proposed rule. I  
13 believe you testified earlier because it's proposed, you  
14 would not use it in construction permits; is that  
15 correct?

16 MR. ROMAINE: That's correct.

17 MR. ZABEL: In Section 1.9-1, the Agency has  
18 asked for ASTM testing of mercury sampling and analysis;  
19 is that correct?

20 MR. ROMAINE: That's partially correct.

21 MR. ZABEL: Please explain.

22 MR. ROMAINE: The actual permit provision  
23 says this sampling and analysis -- and I corrected a  
24 typo, omitted the "and" -- but this sampling and analysis

1 shall be conducted using appropriate ASTM methods or  
2 other methods approved or endorsed by USEPA.

3 MR. ZABEL: Is one grab sample per day an  
4 ASTM method for determining mercury in coal?

5 MR. ROMAINE: The purpose of this permit was  
6 not to obtain a representative value for the mercury  
7 content of coal on a daily basis. All this permit  
8 condition requires is that Dynegy obtain representative  
9 data for the mercury content of coal that it can  
10 correlate with the emission data that it collects for  
11 mercury emissions from the facility when using the new  
12 control system. So the requirements to conduct sampling  
13 of coal to determine a representative value for a short  
14 potentially three-hour, six-hour emission test are very  
15 different than the requirements like in a representative  
16 sample -- samples of coal to determine a value for  
17 mercury content over the course of a year when a unit is  
18 equipped with a continuous emission monitor.

19 MR. ZABEL: This testing requirement,  
20 captioned as a record-keeping requirement, would only be  
21 for purposes of that confirmatory testing?

22 MR. ROMAINE: Excuse me?

23 MR. ZABEL: Well, you said it's to verify  
24 for a short-term time period; is that correct?

1                   MR. ROMAINÉ:  What I said was it -- What I  
2   said was the purpose of the requirement is for Dynegy to  
3   have data for the mercury content of its coal that it  
4   could correlate with the emission data.  This system  
5   pursuant to the consent decree is required to have 90  
6   percent removal or to be designed to achieve 90 percent  
7   removal of mercury.  To determine 90 percent removal of  
8   the mercury requires that there be data for both the  
9   amount of mercury going into the unit and the amount of  
10  mercury coming out of the unit.  The consent decree does  
11  not include requirements for continuous emission  
12  monitoring.  Therefore, the general presumption of this  
13  permit is that on some basis, as agreed to pursuant to  
14  the consent decree and in discussions with USEPA and  
15  other parties, there will be a schedule for conducting  
16  specific emissions testing of the unit, and all the  
17  permit condition requires is that in conjunction with  
18  that testing there also be data for the mercury content  
19  of the coal supply into the boiler.

20                   MR. ZABEL:  And your understanding is that  
21  correlation of the emission testing would be over a  
22  shorter time period than a 12-month rolling calendar.

23                   MR. ROMAINÉ:  My expectation is that would  
24  be over a far shorter period of time.

1                   MR. ZABEL: And then it would be your --  
2 would it be your view, Mr. Romaine, that this provision  
3 would be unnecessary under the present rule? Under the  
4 proposed rule. Sorry.

5                   MR. ROMAINE: The provision in this permit  
6 would not need to be applied generally under the proposed  
7 rule. It could still be applicable to Dynegy because one  
8 of the curious features of the consent decree is it's  
9 silent on the compliance time period associated with the  
10 90 percent removal requirement for this proposed  
11 supplementary environmental control project.

12                  MR. ZABEL: But to make it easy, assume I'm  
13 asking the question for my other client, Midwest  
14 Generation, which has no consent decree.

15                  MR. ROMAINE: In terms of your other client,  
16 there would be no need to obtain mercury content for the  
17 coal to correlate with a 90 percent removal requirement  
18 at the present time.

19                  MR. ZABEL: ASTM testing is more rigorous  
20 than a grab sample per day with 365 days; is that  
21 correct, Mr. Romaine?

22                  MR. ROMAINE: I'm not sure it is. I think  
23 they're -- I'm not familiar with the exact wording of the  
24 ASTM method, but the ASTM method seems to allow some

1 flexibility in the rigor with which samples are collected  
2 depending on the purpose of the sampling. Certainly if  
3 the purpose of the sampling was to determine the heat  
4 content of a coal supply on a daily basis for contractual  
5 purposes, it would require more than a single grab  
6 sample. In terms of conducting sampling and analysis to  
7 correlate with an emission test, it's possible that the  
8 ASTM methods would in fact allow a single sample or a  
9 very small number of grab samples to be taken to be  
10 correlated with an emission test.

11 MR. ZABEL: And for mercury, you don't -- do  
12 you know what the sampling requirement is in the ASTM  
13 standards?

14 MR. ROMAINE: I'm not familiar with the  
15 details of the standard, no.

16 MR. ZABEL: Do you know what the variability  
17 of mercury is in coal?

18 MR. ROMAINE: I am familiar with data that  
19 shows the variability of mercury in coal as sampled. I  
20 don't know anything beyond that.

21 HEARING OFFICER TIPSORD: I think we're  
22 ready for question 69, then. Question 69.

23 MR. KALEEL: Number 69, "Please describe  
24 what other Illinois rulemakings are expected to impose

1 requirements on EGUs in Illinois." There are a number of  
2 federal requirements related to the eight-hour ozone  
3 ambient air quality standard, to the fine particle or  
4 PM2.5 ambient air quality standard and to USEPA's regional  
5 haze program that may affect EGUs. A list of some of  
6 these are the CAIR rule, the Clean Air Interstate Rule;  
7 NOx and SO2 RACT; requirements for best available  
8 retrofit technology, or BART; and any other requirements  
9 that the State determines are necessary to allow us to  
10 demonstrate attainment of the air quality standards. It  
11 should be noted that the Agency has not proposed any  
12 rules on any of these requirements thus far with the  
13 exception of the requirement for CAIR.

14 HEARING OFFICER TIPSORD: And I believe that  
15 also answers question 70. Mr. Harrington, do you have a  
16 follow-up?

17 MR. HARRINGTON: Has the Agency been  
18 considering what will be necessary for attainment of the  
19 PM2.5 refined particulate standards in Chicago and East  
20 St. Louis?

21 MR. KALEEL: Yes, we have.

22 MR. HARRINGTON: Have you been a part of the  
23 LADCO consideration of something that's called EGU1 and  
24 EGU2; in other words, controls beyond CAIR for NOx and

1 SOx?

2 MR. KALEEL: There are a couple of different  
3 control strategy options that are commonly called the  
4 EGU1 and EGU2, and these are a result of a LADCO  
5 contractual effort, what they call development of their  
6 white papers, which are a range of potential control  
7 options for reaching the eight-hour ozone and PM2.5  
8 standards.

9 HEARING OFFICER TIPSORD: Mr. Harrington,  
10 with all due respect, you have several questions about  
11 PM2.5, SOx and NOx as we move on.

12 MR. HARRINGTON: Yes. I was --

13 HEARING OFFICER TIPSORD: Okay.

14 MR. MATOESIAN: The Agency would submit that  
15 these questions are out of the scope of the rulemaking.  
16 The CAIR --

17 HEARING OFFICER TIPSORD: We can't -- You're  
18 going to need a microphone.

19 MR. MATOESIAN: The Agency would submit that  
20 these questions are out of the scope of the rulemaking.  
21 The CAIR rulemaking I believe hasn't even been submitted  
22 to the Board yet.

23 HEARING OFFICER TIPSORD: The CAIR rule has  
24 been submitted to the Board.

1 MR. MATOESIAN: It must have been recent.  
2 But this has nothing to do with the mercury rule and this  
3 is a completely different rulemaking. Even if there's,  
4 you know, the same sources dependent on different rules,  
5 that's common. So we would say questions 71 through 78  
6 are all out of scope.

7 HEARING OFFICER TIPSORD: Mr. Harrington?

8 MR. HARRINGTON: May I respond?

9 HEARING OFFICER TIPSORD: Uh-huh.

10 MR. HARRINGTON: I think it's quite clear  
11 that any rational company is going to have to look at all  
12 the requirements that are being imposed on it either by  
13 known rules or those being developed in planning for  
14 compliance and that we can state now but then our  
15 testimony will develop it further that the selection of  
16 one set of controls for mercury might preclude another  
17 set of controls for NOx or SOx. There has to be some  
18 consideration as we move forward through all these  
19 rulemakings of how they interrelate in terms of what are  
20 the appropriate controls that companies will need to  
21 install and on what schedule. It's well known that in --  
22 the federal CAMR rule was largely based on the fact that  
23 the CAIR rule would require significant mercury reduction  
24 considered as a co-benefit. To exclude the consideration



1 of multi-pollutant issues here I think would fly in the  
2 face of reality and the entire history of development of  
3 controls. Others may have their own viewpoint on this.

4 HEARING OFFICER TIPSORD: Mr. Forcade?

5 MR. FORCADE: I believe there's prior  
6 Illinois case law holding that a regulatory proceeding  
7 that fails to address impacts of contemporaneous other  
8 regulatory proceedings may be subject to challenge, and I  
9 believe it's the State Chamber of Commerce, but I'll  
10 look. I think it was particulate and SO2 regulations  
11 that the Board adopted.

12 HEARING OFFICER TIPSORD: Mr. Zabel?

13 MR. ZABEL: Just supplemental on what  
14 Mr. Forcade said, I believe the original appeal of the  
15 state implementation plan which went to the Illinois  
16 Supreme Court considered that very fact. It was the  
17 interplay of particulates and sulfur standards. But more  
18 significantly and maybe more on point, Table 8.10 of the  
19 Agency's TSD talks about co-benefits. Co-benefits is a  
20 subject of, as I think Mr. Harrington described it, the  
21 interplay of multiple regulations, in this case the  
22 regulations for CAIR and for mercury, and because we are  
23 comparing a great deal of this to CAMR, which relied  
24 heavily on CAIR benefits -- on co-benefits -- excuse

1 me -- I think it's most relevant. I mean, I have to  
2 agree with Mr. Harrington.

3 HEARING OFFICER TIPSORD: Mr. Matoesian?

4 MR. MATOESIAN: It's true there may be  
5 co-benefits. We are not against these co-benefits, and  
6 to whatever extent they can achieve co-benefits, that's  
7 fine. Particularly as to the CAIR rule, they just really  
8 aren't at issue here and shouldn't be delved into during  
9 this rulemaking. If they would like to create a  
10 pollution control strategy that makes a maximum use of  
11 co-benefits, that's fine. The mercury rule as we propose  
12 is not against that, and to my knowledge the CAIR rule is  
13 not against that, but the mere fact that they can achieve  
14 co-benefits does not mean that the CAIR rule should be  
15 open to debate at this point.

16 MR. HARRINGTON: I think in terms of the  
17 economic reasonableness, the technical feasibility of the  
18 rule, it has to be taken into account as to what other  
19 requirements must be met by these same facilities. For  
20 example -- and I'm -- this is positing one that I don't  
21 think will be in evidence, but it's simple. If the two  
22 were inconsistent technologically, one could not be  
23 achieved without the other, then certainly the Agency --  
24 Board would have to take that into account. In this case

1 they may not be consistent but they may be intermeshed  
2 regardless of how the Board rules on the Agency's  
3 proposed CAIR rule, and that's not an issue we're trying  
4 to argue in this case. Obviously it's not, and the  
5 Agency has made certain statements there as to what they  
6 want to achieve. There is a federal requirement that's  
7 out there we know we have to meet. There's a federal  
8 requirement out there for the PM2.5 SIP we know we have to  
9 meet. In considering these, the Board to have this  
10 information in front of them in the course of this  
11 rulemaking, I think it is not only desirable, but  
12 necessary to avoid any potential legal problem.

13 HEARING OFFICER TIPSORD: Okay. Here's what  
14 I'm going to do. I must admit that when I read these  
15 questions, my note right here says, "why relevant here."  
16 However, I am persuaded to some extent by the arguments  
17 I've heard. What I'm going to ask is that you allow me  
18 to check and read the State Chamber case, the -- tonight,  
19 and since obviously we're not going to get through with  
20 Ameren's questions, let's table these questions until  
21 tomorrow, if that's all right with all of you, and let me  
22 check the case law, and then I'll make a ruling tomorrow  
23 on the relevancy. Mr. Zabel?

24 MR. ZABEL: I think the earlier case I

1 referred to may be referenced as Commonwealth Edison  
2 versus the Illinois EPA or the Pollution Control Board.  
3 I've forgotten exactly what --

4 HEARING OFFICER TIPSORD: I'm sure that  
5 Kathleen Crowley's institutional memory will help me --

6 MR. ZABEL: I'm sure she will, yes.

7 HEARING OFFICER TIPSORD: -- to a large  
8 extent.

9 MR. ZABEL: We can stipulate to that, Madam  
10 Hearing Officer.

11 HEARING OFFICER TIPSORD: But I will check,  
12 or if you can give me the specific cite, I would like to  
13 read those cases.

14 MR. ZABEL: I don't have it with me.

15 MR. BONEBRAKE: And what specific questions,  
16 then, will be --

17 HEARING OFFICER TIPSORD: Question 71  
18 through 78 I'm going to reserve ruling on.

19 MR. ROSS: And that takes us to 79? I was  
20 actually home free until 79.

21 HEARING OFFICER TIPSORD: Darn.

22 MR. ROSS: Exactly my sentiments. 79, "Is  
23 there not a significant overlap between technologies  
24 which might achieve compliance with new nitrogen oxide

1 and sulfur dioxide regulations and those which may be  
2 required for mercury control?" Yes, there is a  
3 significant overlap. It has been shown that FGD, SCR,  
4 fabric filters, ESP and other pollution control  
5 technologies are effective to provide some level of  
6 co-benefit for control of mercury emissions. However,  
7 mercury-specific controls such as ACI and halogenated ACI  
8 are, as the term implies, specific to mercury.

9 Question 80, "Is it not logical that these  
10 various requirements be harmonized both in terms of  
11 emission limitations and scheduling?" Yes, to some  
12 degree. However, it is not appropriate to postpone  
13 mercury control beyond July 1 of 2009 in the opinion of  
14 the Agency.

15 Question 81, "Has Illinois EPA taken any  
16 consideration of the total economic impact of these  
17 multi-pollutant controls on Illinois power plants?" And  
18 yes, EPA has modeled the impacts of both the proposed  
19 mercury rule and the proposed CAIR rule, and economic  
20 modeling was performed in order to determine conservative  
21 estimates for costs with respect to the proposed CAIR  
22 rule and the proposed Illinois mercury rule.

23 HEARING OFFICER TIPSORD: Mr. Rieser?

24 MR. RIESER: And I'm sorry for being slow.

1 I know Mr. Kim -- I'm sorry. I'm sorry for being slow.  
2 I know Mr. Kim has a wonderful technical term for this  
3 late afternoon forgetfulness, but -- which I forgot, of  
4 course. But I think you said a couple of questions ago  
5 that it was the Agency's opinion that the rule not be  
6 delayed beyond -- control, I should say, not be delayed  
7 beyond July 1, 2009, and I suspect the answer is that  
8 we've talked about this extensively between Dr. Keeler  
9 and Ms. Willhite, but has the Agency quantified what the  
10 difference would be between controls in 2009 and controls  
11 in 2010 or controls in 2012?

12 MR. ROSS: Well, in comparison to the  
13 federal mercury rule, we have quantified them to some  
14 degree. Not the deposition per se, but the required  
15 reductions have obviously been quantified in that  
16 Illinois' rule requires a 90 percent reduction in mercury  
17 by July 1, 2009. The federal CAMR cap is equivalent to  
18 around a 47 percent reduction in mercury emissions by  
19 2010.

20 MR. RIESER: How about with regard to the  
21 deposition?

22 MR. ROSS: No, we have not --

23 MR. RIESER: Thank you.

24 MR. ROSS: -- made any quantification of

1 that.

2 82, "Were not the federal CAMR regulations based  
3 on a desire to harmonize the controls of SO2 and NOx with  
4 those of mercury?" Yes, they were.

5 HEARING OFFICER TIPSORD: Ms. Bassi?

6 MS. BASSI: I'm sorry. You were too quick  
7 on the draw there. In question 81 you said that the  
8 Agency performed modeling or contracted to have modeling  
9 done to look at the total economic impact of the  
10 multi-pollutant controls on Illinois power plants. Was  
11 that the IPM modeling?

12 MR. ROSS: Yes. We did modeling for the  
13 proposed Illinois mercury rule and we did separate  
14 modeling for the proposed Illinois CAIR rule.

15 MS. BASSI: Oh, separate.

16 MR. ROSS: And that's addressed in the CAIR  
17 Technical Support Document.

18 MS. BASSI: But the only -- is it correct  
19 that the only modeling that was performed for the mercury  
20 rule was the modeling performed by ICF?

21 MR. ROSS: Yes, that is correct.

22 MS. BASSI: Okay. Thank you.

23 HEARING OFFICER TIPSORD: Number 83?

24 MR. ROSS: 83, "For example, are there not

1 significant mercury reduction benefits in the  
2 installation of wet flue gas desulfurization preceded by  
3 selective catalytic reduction on mercury for facilities  
4 burning bituminous coal, such as produced in Illinois?"  
5 And yes, we agree with this assessment that a combination  
6 of FGD, SCR and PM control is very effective in reducing  
7 mercury emissions.

8 Question 84, "If a facility installs halogenated  
9 powdered activated carbon injection with a baghouse for  
10 mercury control to comply with Illinois EPA's mercury  
11 proposal, would that not be inconsistent with burning  
12 Illinois bituminous coal in the future because the  
13 facilities would use dry scrubbing with the baghouse to  
14 achieve SO2 reductions?" And the answer is perhaps, but  
15 that is just one of many compliance options. We have not  
16 specifically evaluated the impact to Illinois coal from  
17 this scenario.

18 HEARING OFFICER TIPSORD: Mr. Zabel?

19 MR. ZABEL: To your knowledge, Mr. Ross, on  
20 what basis does the source size a baghouse? What are  
21 the -- and strike that. Let me make -- Do you know what  
22 the critical parameters are in sizing a baghouse?

23 MR. ROSS: That would probably be a question  
24 best answered by Dr. Staudt, and in fact, in discussions



1 with him, he has asked that further questions on this be  
2 referred to him.

3 MR. ZABEL: So we'll save that for  
4 Dr. Staudt?

5 MR. ROSS: Yes. Ideally, yes.

6 MR. ZABEL: Okay.

7 MR. ROSS: 85, "If, as the companies have  
8 suggested, the Illinois mercury proposal would require  
9 installation of baghouses on virtually all the facilities  
10 presently burning sub-bituminous coal, would that not  
11 effectively discourage any use of Illinois coal in the  
12 future by making the investments substantially obsolete  
13 if a facility was to switch to Illinois coal?" And not  
14 necessarily. I believe we need more information on the  
15 particular limitations on dry scrubbing for SO2 control.  
16 As I previously mentioned, we have not specifically  
17 researched this scenario. To some degree it may be that  
18 that is the case. This is a constructive line of  
19 questioning. I would like to add, I think the desire  
20 would have been that this would have been brought up in  
21 the stakeholder meetings, but we need to research that  
22 more and be provided additional information on that in  
23 order to provide an answer, but Dr. Staudt is aware of  
24 this question and he hopefully will be able to address it

1 further when he is here.

2 86, "If multi-pollutant averaging is allowed, why  
3 not allow averaging between companies?" This was  
4 discussed and considered to be problematic in that it  
5 would be a significant administrative burden. Compliance  
6 liability issues would also arise if averaging provisions  
7 were violated, and the Agency recognizes that there is a  
8 limited incentive for different companies to average.  
9 Also, this possibility was not raised as a desirable  
10 option in any of the stakeholder meetings or comments, so  
11 we did not address it in detail at that time.

12 HEARING OFFICER TIPSORD: I would note that  
13 it's multi-plant, not multi-pollutant.

14 MR. ROSS: Excuse me.

15 HEARING OFFICER TIPSORD: Question 87?

16 MR. ROMAINE: "With respect to the averaging  
17 demonstration as discussed at pages 7 and 8 of  
18 Mr. Romaine's testimony, has the Illinois EPA made any  
19 internal estimates of which facilities would comply for  
20 the 75 percent minimum reduction by plant or which units,  
21 if any, would not have to install controls?" We have not  
22 conducted that evaluation. This is an option that is  
23 provided in the rule of flexibility, but we don't know  
24 which facilities would elect to rely upon this.

1 HEARING OFFICER TIPSORD: Mr. Zabel?

2 MR. ZABEL: Just to my understanding, that

3 question at the end says "would not have to install

4 controls." My understanding of the rule -- and correct

5 me if this is in error, Mr. Romaine -- all units would

6 have to install some controls; is that correct?

7 MR. ROMAINE: That is our expectation, yes.

8 MR. ZABEL: Even in Phase I.

9 MR. ROMAINE: Yes.

10 MR. ROSS: Except for those units who

11 already have adequate control configurations where they

12 can meet the --

13 MR. ZABEL: Some may already meet 75 percent

14 or even 90 and be averaged?

15 MR. ROSS: Yes, that is our belief.

16 MR. ZABEL: Okay.

17 MR. ROMAINE: And then the other exception

18 would be units that avail themselves of provisions for

19 shutdown units.

20 HEARING OFFICER TIPSORD: Question 88.

21 MR. ROSS: 88, "Since at best technology

22 proposed by Illinois EPA witnesses will barely exceed" --

23 MR. HARRINGTON: Excuse me. May I go back?

24 HEARING OFFICER TIPSORD: Sure. Of course,

1 Mr. Harrington.

2 MR. HARRINGTON: I call your attention to  
3 the sentence at the bottom of page 7 of your testimony,  
4 and --

5 MR. ROSS: Whose testimony?

6 HEARING OFFICER TIPSORD: Mr. Romaine's.

7 MR. HARRINGTON: Mr. -- The amended  
8 testimony of Christopher Romaine that you just passed  
9 out. The statement is, quote, "This requirement assures  
10 that technology for control of mercury emissions is  
11 utilized on each source, comma, and most likely each  
12 unit, comma, that is covered by a multi-source compliance  
13 demonstration," end of quote. Could you explain what  
14 that sentence means, particularly with -- particularly  
15 the language "and most likely each unit"?

16 MR. ROMAINE: I believe my testimony was  
17 simply being cautious that there could be some very  
18 atypical set of circumstances where there might be some  
19 particular plant where it's conceivable that one unit  
20 might escape an obligation to have control given the  
21 controls that are being installed on the other units at  
22 that plant. The other way to express it is that what we  
23 were most concerned about in terms of crafting the rule  
24 was to make sure that controls were applied at each

1 plant. We were not as concerned about assuring that  
2 controls were installed at each unit of a plant, even  
3 though that was expected to be done.

4 MR. HARRINGTON: Perhaps for the record it  
5 would be useful if you would explain what you mean by the  
6 difference between units and plants. I think most of us  
7 understand that, but the record may not be entirely  
8 clear.

9 MR. ROMAINE: When I use the term unit and  
10 as the rule uses the term unit, it refers to an  
11 individual generating unit that is made up of a boiler or  
12 a pair of boilers and the associated electrical  
13 generator. Most of the coal-fired power plants in  
14 Illinois have more than one generating unit, and it would  
15 be simplest to look at the exceptions where there is only  
16 one generating unit at a plant, and I don't want to do  
17 this, but an example of a facility that only has one  
18 generating unit would be Ameren's Duck Creek plant, which  
19 has a single boiler and a single electrical generator.  
20 An example of a facility that has two units would be  
21 Midwest Generation's Crawford station, which has two  
22 boilers and two generating units.

23 MR. HARRINGTON: Thank you, just for the  
24 record, so it's more clear. Otherwise it took me a while

1 to figure out all these terms.

2 HEARING OFFICER TIPSORD: Thank you,  
3 Mr. Harrington. Are we ready, then, for question 88?

4 MR. ROSS: 88, "Since at best technology  
5 proposed by Illinois EPA witnesses will barely exceed a  
6 90 percent removal rate as described in the various  
7 studies for sub-bituminous coals, which units would be  
8 available, if any, to avoid installing controls during  
9 Phase I of the rule since there would not be excess  
10 reductions from other units?" And it is reasonable to  
11 expect that all units will require some degree of mercury  
12 control, and the Agency estimated costs based on this  
13 premise. However, all units are not required to install  
14 mercury controls and it may be possible for some smaller  
15 units to avoid mercury controls. One such scenario where  
16 this is potentially possible would be in the case where  
17 one or more larger units obtain mercury controls well in  
18 excess of 90 percent and a smaller unit within the  
19 averaging scheme emits less mercury through a reduction  
20 in operating hours. Again, how compliance is achieved  
21 will be up to the facilities, and the short answer to the  
22 question is that it is reasonable to expect that all  
23 units firing sub-bituminous coal will require some degree  
24 of mercury control.

1 HEARING OFFICER TIPSORD: Having reached the  
2 hour of five o'clock, we'll go ahead and wrap up today,  
3 but -- here's the big but -- given the concern that if we  
4 have -- if we're not done with the Agency by Friday and  
5 it's been expressed that next week is not necessarily  
6 feasible for a lot of people, we will start going later  
7 than five o'clock tomorrow night, and we'll see how it  
8 goes. We'll try -- We'll see six tomorrow and see where  
9 we're at and --

10 BOARD MEMBER MOORE: Seven.

11 HEARING OFFICER TIPSORD: -- seven possibly,  
12 but it's going to also depend upon how we're all holding  
13 up as well. I mean, obviously if we're all at each  
14 other's throats at six o'clock tomorrow night, then we'll  
15 go home, but we're going to try and -- we'll extend the  
16 days to try and wrap up by Friday. Mr. Zabel?

17 MR. ZABEL: I would just note, Madam Hearing  
18 Officer, that several -- I think most of us have a  
19 commitment tomorrow night at 6:30.

20 HEARING OFFICER TIPSORD: Okay. Then we  
21 will wrap up tomorrow at six.

22 MR. ZABEL: Thank you.

23 HEARING OFFICER TIPSORD: Okay. Then let's  
24 go home and get a good night's rest.

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(Hearing recessed at 5:01 p.m.)



1 STATE OF ILLINOIS )  
 ) SS  
2 COUNTY OF BOND )

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4 I, KAREN WAUGH, a Notary Public and Certified  
5 Shorthand Reporter in and for the County of Bond, State  
6 of Illinois, DO HEREBY CERTIFY that I was present at  
7 Illinois Pollution Control Board, Springfield, Illinois,  
8 on June 19, 2006, and did record the aforesaid Hearing;  
9 that same was taken down in shorthand by me and  
10 afterwards transcribed, and that the above and foregoing  
11 is a true and correct transcript of said Hearing.

12 IN WITNESS WHEREOF I have hereunto set my hand  
13 and affixed my Notarial Seal this 23rd day of June, 2006.

14

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\_\_\_\_\_  
Notary Public--CSR

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#084-003688

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