

THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: )  
 )  
AMENDMENTS TO 35 ILL. ADM. CODE )  
PART 214, SULFUR LIMITATIONS, PART ) R 2015-021  
217, NITROGEN OXIDES EMISSIONS, ) (Rulemaking-Air)  
AND PART 225, CONTROL OF EMISSION )  
FROM LARGE COMBUSTION SOURCES. )

TRANSCRIPT FROM THE PROCEEDINGS

taken before HEARING OFFICER DANIEL L. ROBERTSON  
by LORI ANN ASAUSKAS, CSR, RPR, a notary public  
within and for the County of Cook and State of  
Illinois, at the Illinois Pollution Control Board,  
302 North Chicago Street, Joliet, Illinois, on the  
4th day of August 2015, A.D., at 10:40 a.m.

1 A P P E A R A N C E S:

2 ILLINOIS POLLUTION CONTROL BOARD,  
3 100 West Randolph Street  
4 Suite 11-500  
Chicago, Illinois 60601  
(312) 814-6983

5 BY: MR. DANIEL L. ROBERTSON, HEARING OFFICER,

6 ILLINOIS POLLUTION CONTROL BOARD MEMBERS PRESENT:

7 Chairman Deanna Glosser, Ph.D.  
8 Board Member Jennifer Burke  
9 Board Member Jerome O'Leary,  
10 Board Member Carrie Zalewski,  
11 Board Member Gerald Keenan  
12 Ms. Marie Tipsord, Legal Department  
13 Mr. Anad Rao, Technical Unit  
14 Ms. Lisa Liu, Technical Unit

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21 Appeared on behalf of the Illinois  
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BY: MR. STEPHEN J. BONEBRAKE,

Appeared on behalf of the Midwest

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1 HEARING OFFICER ROBERTSON: Okay.  
2 We're going to get started now. Thank you all  
3 for waiting. I apologize I can't see everybody.  
4 I'll talk loud and if you have any issues, just  
5 put up your hand if you need me to speak loud  
6 or repeat anything.

7 Good morning all. My name is  
8 Daniel Robertson and I have been appointed by  
9 the Board to serve as the hearing officer in this  
10 proceeding entitled, "In The Matter of Amendments  
11 to 35 Illinois Administrative Code Part 214, Sulfur  
12 Limitations, Part 217, Nitrogen Oxide Emissions  
13 and Part 225, Control of Emissions from Large  
14 Combustion Sources."

15 This proceeding is listed as  
16 R 15-21 in the Board's docket. With me today  
17 is on my right, we have the Presiding Board Member  
18 Jennifer Burke and next to her from the Board's  
19 Technical Unit we have Anad Rao and Alisa Liu.  
20 On my left, we also have the Board's Chairman,  
21 Dr. Deanna Glosser and next to her is Board Member  
22 Carrie Zalewski and we will also be joined by  
23 Member Gerry Keenan.

24 This rulemaking was filed

August 4, 2015

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1 pursuant to Sections 4, 10, 27, 28 and 28.2 of  
2 the Environmental Protection Act.

3 On May 7th, the Board granted  
4 the Illinois Environmental Protection Agency's  
5 motion for expedited review and proceeded to  
6 first notice without substantive comments on the  
7 merits of the proposal.

8 This is the third of three  
9 public hearings that the Board has scheduled.  
10 The first took place on July 8th in Springfield  
11 where the Agency presented testimony and  
12 answered questions. We also heard a number of  
13 public comments.

14 The second took place on  
15 July 29th in Joliet. And there, we heard testimony  
16 from the Illinois Environmental Regulatory Group  
17 as well as a number of additional questions for  
18 the Agency and additional public comments.

19 The transcripts for those hearings  
20 are available on the Board's website.

21 So the purpose of today's hearing  
22 is to continue to hear testimony and public comment  
23 on the Agency's proposal.

24 Sierra Club and the Environmental

1 Law & Policy Center did pre-file testimony for  
2 today so we will begin with that. That will be  
3 followed by questions for those witnesses.

4 I will also note that any  
5 questions that are asked by a Board member and  
6 are intended to help build a complete record for  
7 the Board's decision and not intended to express  
8 any preconceived notion or bias.

9 Once we are done with testimony  
10 and questions for Sierra Club and ELPC, we will  
11 then move on to additional Agency testimony as  
12 well as any questions for the Agency. Once those  
13 are over, anyone else who wishes to testify will  
14 be given an opportunity to do so.

15 Once testimony is complete, we  
16 will then have time for anyone who wishes to offer  
17 a public comment. We do have signup sheets. They  
18 are on the podium in the back if you would like to  
19 sign in for either testimony or public comments.

20 If you wish to offer a public  
21 comment, but you do not wish to speak today, you  
22 will be able to file a written public comment  
23 with the Pollution Control Board and deadlines  
24 for all of those filings will be discussed later

1 today.

2                   During testimony, if you wish  
3 to ask any questions of the witness, I just ask  
4 that you please put up your hand and wait to be  
5 acknowledged and once you are acknowledged, if  
6 you can state your name, spell it and if you are  
7 speaking on behalf of a member of any organization,  
8 and the reason for this is just so that we can  
9 keep a clearer record for the court reporter who  
10 is sitting in front of you over here.

11                   Also, we do have a microphone.  
12 When you speak, please step up to the podium and  
13 use the microphone provided.

14                   Additionally, when you do offer  
15 comment or testimony, if you are using acronyms,  
16 if you could state them out in their entirety for  
17 the first time, if you're citing to a document,  
18 if you can be specific to what that document is,  
19 and if you would like to provide a copy of that  
20 document for the record, you are welcome to do  
21 so too.

22                   Before we move on, does anyone  
23 have any questions just on the procedure for today?  
24 Everyone can you hear me okay? Thank you.

1                   Would any members of the Board  
2 like to make any opening statements, or Board  
3 staff?

4                   And does the Agency have any  
5 opening statements before we continue?

6                   MS. VETTERHOFFER: My name is Dana  
7 Vetterhoffer. I'm assisting counsel for the  
8 Illinois EPA.

9                   HEARING OFFICER ROBERTSON: Yes.  
10 Can we -- can you pull that microphone closer?  
11 And you need to push the button.

12                   MS. VETTERHOFFER: My name is Dana  
13 Vetterhoffer. I'm assistant counsel for Illinois  
14 EPA.

15                   The Agency doesn't have an  
16 opening statement, but the Board had submitted,  
17 I believe, in its second set of questions for  
18 the Agency, they requested the Agency fill out  
19 a State Mandates Act Questionnaire for Part 214  
20 and another for Part 217.

21                   The Agency has done so and  
22 would like to enter those into exhibits at this  
23 time.

24                   HEARING OFFICER ROBERTSON: Thank

1 you.

2                   So what I have here are, as  
3 stated, the State Mandates Act Questionnaire  
4 for 35 Illinois Administrative Code 214 and 35  
5 Illinois Administrative Code 217. Are there  
6 any objections to entering this as an exhibit  
7 at this time?

8                   Seeing none, I will enter the  
9 State Mandates Act Questionnaire for Part 214 as  
10 the Agency Exhibit F.

11                   (Document marked as Agency  
12                   Exhibit F for identification,  
13                   8/4/15.)

14                   HEARING OFFICER ROBERTSON: And the  
15 State Mandates Act Questionnaire for Part 217 as  
16 Agency Exhibit G.

17                   (Document marked as Agency  
18                   Exhibit G for identification,  
19                   8/4/15.)

20                   HEARING OFFICER ROBERTSON: Again,  
21 before we get to Sierra Club and ELPC, did anyone  
22 else wish to make any opening statements?

23                   I'm sorry. Did you have a  
24 question?

1 MS. VETTERHOFFER: I didn't have a  
2 question. I just want to introduce the Agency  
3 members here with me today.

4 HEARING OFFICER ROBERTSON: Oh,  
5 please. Go ahead.

6 MS. VETTERHOFFER: I apologize for  
7 not doing that sooner. To my right is Jackie Sims.  
8 She is the manager of the Regulatory Unit and the  
9 Air Quality Planning Section in the Agency's Bureau  
10 of Air. To my left is David Bloomberg. He is the  
11 manager of the Air Quality Planning Section. To  
12 his left is Rory Davis. He is an environmental  
13 protection engineer in the Air Quality Planning  
14 Section. To his left is Jeff Sprague. He is  
15 manager of the Modeling Unit in the Air Quality  
16 Planning Section. Thank you.

17 HEARING OFFICER ROBERTSON: Thank  
18 you.

19 Did anyone else want to make any  
20 opening statements or want to introduce themselves  
21 before we move on?

22 Great. Seeing none, we will move  
23 on to the testimony of Sierra Club and ELPC. Would  
24 you like to please introduce yourselves and your

1 witnesses for the record?

2 MS. BUGEL: Sure.

3 HEARING OFFICER ROBERTSON: Thank  
4 you.

5 MS. BUGEL: My name is Faith Bugel.  
6 I am representing Sierra Club today and with me,  
7 I have Ron Sahu. Ron Sahu is offering testimony  
8 on behalf of Sierra Club and Environmental Law &  
9 Policy Center.

10 I would also like to introduce  
11 Dr. H. Andrew Gray, also offering testimony on  
12 behalf of Sierra Club and Environmental Law &  
13 Policy Center. That testimony has been pre-filed.

14 Mr. Sahu, did you pre-file --  
15 have testimony pre-filed in this proceeding?

16 MR. SAHU: Yes, I have.

17 MS. BUGEL: Do you have any changes  
18 to that testimony today?

19 MR. SAHU: Not that I'm aware of.

20 MS. BUGEL: So initially, we would  
21 move for the admission of the testimony of Ranajit  
22 Sahu on behalf of Sierra Club and Environmental  
23 Law & Policy Center subject to cross-examination.

24 HEARING OFFICER ROBERTSON: Okay.

1     Could I have the court reporter swear in the  
2     witnesses before we enter the exhibits, if you  
3     don't mind? Thank you.

4                   THE COURT REPORTER: Would you both  
5     please raise your right hands?

6                   Do you swear the testimony  
7     you're about to give is the truth, the whole  
8     truth and nothing but the truth, so help you  
9     God?

10                  MR. SAHU: I do.

11                  MR. GRAY: I do.

12                  HEARING OFFICER ROBERTSON: Are you  
13     entering them now? I'm sorry.

14                  MS. BUGEL: And I -- I only brought  
15     one copy. I neglected to bring copies. I know it  
16     has been pre-filed.

17                  HEARING OFFICER ROBERTSON: I have  
18     a copy with me. So this is a copy just as it was  
19     filed with the Board.

20                  Are there any objections to  
21     entering -- are you moving this as read?

22                  MS. BUGEL: Yes.

23                  HEARING OFFICER ROBERTSON: Are  
24     there any objections to accepting this testimony as

1 read at this time?

2 MR. BONEBRAKE: No objections  
3 subject to cross. My name is Steve Bonebrake,  
4 B-O-N-E-B-R-A-K-E, and I represent Midwest  
5 Generation.

6 HEARING OFFICER ROBERTSON: Thank  
7 you.

8 So at this time, I will enter  
9 the pre-filed testimony of Ron Sahu on behalf  
10 of Sierra Club and ELPC as Sierra Club Exhibit A.

11 (Document marked as Sierra Club  
12 Exhibit A for identification,  
13 8/4/15.)

14 HEARING OFFICER ROBERTSON: Again, I  
15 just ask please use the microphone so that everyone  
16 can hear you. Thank you. Please proceed.

17 MS. BUGEL: And we present Mr. Sahu  
18 for cross-examination.

19 HEARING OFFICER ROBERTSON: Are there  
20 any questions for Mr. Sahu from any members of the  
21 public today? Anyone?

22 Would the Agency like to start?  
23 Thank you.

24 MS. VETTERHOFFER: Thank you. Again,

1 my name is Dana Vetterhoffer. I am assistant  
2 counsel for the Illinois EPA.

3 Mr. Sahu, when did you begin  
4 your review efforts pertaining to this rulemaking?

5 MR. SAHU: I don't remember the exact  
6 date, but on and off, several months ago. More  
7 intensively just in the weeks prior to filing my  
8 testimony.

9 MS. VETTERHOFFER: On Page 4 of your  
10 testimony, you indicate that the documents provided  
11 through the current rulemaking don't contain all  
12 of the details about the Illinois EPA's underlying  
13 modeling.

14 Are you familiar with the  
15 information the Agency provided both as part of  
16 its outreach efforts in this rulemaking and in  
17 response to requests from the Sierra Club?

18 MR. SAHU: Yes. I made that  
19 statement after looking at everything that was  
20 provided in response.

21 MS. VETTERHOFFER: The Agency has  
22 provided modeling input files in response to  
23 requests by the Sierra Club, correct?

24 MR. SAHU: Yes. I looked at what

1 was provided as modeling input files.

2 MS. VETTERHOFFER: And are you aware  
3 that representatives of the Sierra Club attended  
4 an outreach meeting held by the Agency in  
5 August 2014 at which the Agency shared its modeling  
6 results?

7 MR. SAHU: I -- I don't have any  
8 information one way or the other as to who attended  
9 and what was presented. I was not present at the  
10 meeting.

11 MS. VETTERHOFFER: Most recently,  
12 on July 16, the Agency provided additional modeling  
13 information requested by Sierra Club, is that your  
14 understanding?

15 MR. SAHU: Yes. Some additional  
16 information was provided on July 16th.

17 MS. VETTERHOFFER: Okay. And on  
18 July 17th, the Agency offered to provide  
19 supplemental modeling information to the Sierra  
20 Club including all of the files and data for the  
21 air dispersion modeling asking only that the Sierra  
22 Club provide a jump drive or portable hard drive  
23 to the Agency as the information is voluminous;  
24 is that correct?

1 MR. SAHU: Again, I don't have all  
2 the information or the logistics of file transfers,  
3 but I know there was information they requested  
4 and information being provided in that week.

5 MS. VETTERHOFFER: But are you aware  
6 that the Agency offered to provide all of its  
7 modeling files if the Sierra Club gave the Agency  
8 a way of getting it to the Sierra Club?

9 MR. SAHU: Oh, I don't -- I don't  
10 doubt that. I mean, I have no reason to believe  
11 that the Agency didn't make all of its files  
12 available. I think the Agency -- at least in a  
13 couple of calls that I have, the staff were very  
14 cooperative and wanted to share what they had  
15 subject to whatever legal and other procedural  
16 constraints they were operating under.

17 MS. VETTERHOFFER: Thank you. Is it  
18 your understanding, though, that the Sierra Club  
19 never received all of the data files because they  
20 never provided a portable hard drive or a jump  
21 drive for the Agency to put that information on?

22 MR. SAHU: I -- I don't know about  
23 that and I will just say that a lot of what I  
24 addressed are emissions, which are a part of

1 what goes into modeling.

2 My biggest concerns have and  
3 continue to be with the emissions inputs into  
4 the modeling that has been done and, of course,  
5 the modeling contains other inputs besides the  
6 emissions.

7 I have been focused on the  
8 emissions characterization and the details and  
9 rationale and the explanations and the support  
10 for the emissions inputs that have been used  
11 by the Agency.

12 I -- I believe that as far as  
13 the emissions are concerned, I had that information  
14 when I -- or all the information, which they had  
15 given me was not subject to getting anything  
16 additional through the jump drive or through other  
17 means.

18 MS. VETTERHOFFER: So you think you  
19 had everything you needed in order to make your  
20 analysis for your testimony?

21 MR. SAHU: No. I think what I said  
22 is I had all the information that the Agency had  
23 used vis-à-vis emissions in its inputs.

24 MS. VETTERHOFFER: Okay. Let me

1 clarify. Are you claiming that the Agency failed  
2 to provide you any information that you needed  
3 for your testimony that was requested from the  
4 Agency?

5 MR. SAHU: No. My questions were --  
6 I think the Agency gave me the emissions inputs.  
7 I had and continue to have questions about those  
8 emissions inputs, which I asked during phone calls  
9 and it is my position that there still remain to  
10 be issues relating to the emissions inputs that  
11 need to be addressed before it is appropriate to  
12 use them in modeling and then draw conclusions  
13 from that modeling.

14 MS. VETTERHOFFER: Mr. Sahu, are  
15 you aware that Jeff Sprague, the manager of the  
16 modeling unit at the Agency, is available today  
17 and has been available at both prior hearings  
18 that have taken place in this matter to answer  
19 any questions anyone has about the Agency modeling?

20 MR. SAHU: I don't -- I don't doubt  
21 that. I have talked to Mr. Sprague on the phone  
22 a couple of times with calls that we have had. So  
23 again, I reiterate I think staff has been very  
24 forthcoming and I wouldn't doubt that.

1 MS. VETTERHOFFER: On the bottom  
2 of Page 5 of your testimony, you state that all  
3 model sources should have emission limits in  
4 addition to low-sulfur fuel requirements and  
5 you point out that only a handful of model sources  
6 are addressed in Section 214.603.

7 MR. SAHU: Yes.

8 MS. VETTERHOFFER: Are you suggesting  
9 that the Board include emission limitations for all  
10 of the over 2,000 modeled emission units in these  
11 regulations?

12 MR. SAHU: Well, you know, it's --  
13 the whole purpose of this exercise is to show a  
14 proof that the areas in question will come into  
15 attainment and remain in attainment, as I understand  
16 it.

17 The state is choosing to use  
18 modeling as a tool to demonstrate that attainment.  
19 Emissions are a key part of that modeling exercise.  
20 I am simply stating the obvious, which is you  
21 have, according to the state's analysis for Lemont,  
22 over -- close to 1,800 sources that have been  
23 modeled and for back in probably another 350 or  
24 360 sources that have been modeled, how does --

1 how do they connect?

2 How do you connect the dots  
3 if you don't have the emission assumptions in  
4 some fashion as part of the rulemaking and  
5 enforceable? What is the verification? What  
6 is the -- how does the integrity of the whole  
7 modeling exercise and rulemaking tie together?

8 So in my mind, it's a fairly  
9 straightforward question. I did see that for  
10 some sources, as you point out in your question,  
11 there were emission limits and for others, there's  
12 not.

13 I was just pointing out that  
14 the documentation I saw didn't really explain  
15 how these various sources that were modeled and  
16 had emissions limits that were modeled were  
17 incorporated into other documents.

18 MS. VETTERHOFFER: So are you  
19 claiming that only those emission units addressed  
20 in Section 214.603 are currently subject to  
21 enforceable limits?

22 MR. SAHU: No. It's a simple  
23 statement that I saw in that section that there  
24 were some emission limits. I'm just questioning

1 it and it could be just a clarification. What  
2 about all the other emission limits that are in  
3 the modeling files?

4 MS. VETTERHOFFER: And that leads  
5 well into my next question. Are you aware that  
6 sources that were modeled, but which the Agency  
7 did not require any reductions for this rule are,  
8 in fact, already subject to enforceable emission  
9 limits either through other regulations or through  
10 permits?

11 MR. SAHU: I'm aware of some, yes,  
12 and I -- again, like I said, there are close to --  
13 between two areas, over 2000 sources and there  
14 isn't an accounting in the rulemaking documents  
15 as far as I've seen that states here are how we  
16 account for these various emissions sources. Here  
17 are the sources that are subject to individual  
18 limits. Here are the sources subject to fuel  
19 sulfur requirements, which is another part of the  
20 rule.

21 And I didn't see how all  
22 that tied together, quite frankly, and I still  
23 don't see it. I don't really understand why  
24 this is such a difficult issue to understand.

1 It is -- you have assumed Source A as emission  
2 rate X. That emission rate X for some source  
3 is a handful of them. It shows up in a rule.

4 Well, what about the emission  
5 rates in the others? How -- how are they -- how  
6 do you even calculate them? There's -- there are  
7 no details in the rule as far as I could see.

8 MS. VETTERHOFFER: The Agency, in  
9 this rulemaking, has testified that all of the  
10 sources and all of the limits that it modeled are,  
11 in fact, enforceable through another regulation  
12 or through enforceable permit.

13 Do you have any reason to disagree  
14 with that statement?

15 MR. SAHU: I don't have any reason  
16 to disagree with that statement. I'm saying as  
17 a technical matter, when I'm looking at a number  
18 that's been modeled, I don't understand how that  
19 number was developed for all these different  
20 sources.

21 If you could point to me, sitting  
22 here today and as you mentioned, Mr. Sprague could  
23 point me to, here is source 562, and the emission  
24 rate is, you know, two grams per second, how that

1 came about, I would be very happy to see that.

2 I just don't understand that.

3 MS. VETTERHOFFER: Meaning a specific  
4 citation, what rule or what enforceable permit is  
5 necessary for your analysis?

6 MR. SAHU: I don't understand how  
7 those emission rates came about. I understand that  
8 those have been modeled, but the details as to how  
9 they came about are not in the documents.

10 MS. VETTERHOFFER: Mr. Sahu, on  
11 Pages 5 and 6 of your testimony, you claim that,  
12 practically speaking, low-sulfur fuel standards  
13 lead to fluctuations in emissions.

14 First, are you talking about  
15 fluctuations above 15 parts per million or ppm?

16 MR. SAHU: They could be, but I'm  
17 just speaking generally as to fluctuations at  
18 that point, the variability associated with the  
19 concentration limit, which the state is adopting,  
20 which is a -- it's not a mass emission limit.  
21 It's a concentration limit. There are fluctuations  
22 obviously of that limit -- of that actual value  
23 in the fuel at any given time and place.

24 MS. VETTERHOFFER: You are claiming,

1     though, that those fluctuations make an ultra-low  
2     sulfur fuel standard practically unenforceable.

3                   MR. SAHU:   Let me elaborate.  I  
4     think here's the confusion.  You're -- what has been  
5     modeled is mass emission rate, a gram per second per  
6     source.

7                   The limit you're talking about  
8     is a fuel sulfur concentration of 15 parts per  
9     million.  You need a fuel sulfur concentration,  
10    but to get to the mass of a given source, you're  
11    relying on other information, something that is  
12    characteristic of the source whether it is a  
13    certain amount of heat input per unit time or  
14    whether it's a certain amount of power out per  
15    unit time.

16                   I don't see the -- how you  
17    make -- even if you make the fuel sulfur content  
18    of concentration a limit, I don't see how that  
19    provides enforceability to the mass emissions  
20    number that has been included for each single  
21    source in the modeling.

22                   MS. VETTERHOFFER:  Okay.  And we  
23    will get to the mass emission rates based on  
24    fuel content in just a moment, but going back

1 to your statements that low-sulfur fuel standards  
2 lead to fluctuations in emissions, are you aware  
3 of current state and federal rules currently  
4 regulate diesel fuel and its sulfur content?

5 MR. SAHU: Yes. I've been doing  
6 fuel work for about 25 years. I'm very aware of  
7 the fuel sulfur content limitations in various  
8 fuels, not just diesel.

9 Again, I remind the Board and  
10 there are other fuels that are used in many of  
11 the sources that are being modeled. I'm aware  
12 of the diesel fuel sulfur content limitations  
13 you speak to.

14 MS. VETTERHOFFER: Isn't it your  
15 contention today that despite those state and  
16 federal laws, the sulfur content of ultra-low  
17 sulfur diesel fuel leaving refineries regularly  
18 fluctuates above 15 ppm and, therefore, violates  
19 the law?

20 MR. SAHU: No. That is not my  
21 contention and that is not what I meant by that.

22 MS. VETTERHOFFER: Do you have any  
23 evidence that sources themselves are regularly  
24 adding sulfur to their purchase fuel?

1 MR. SAHU: No. I don't think I  
2 communicate any such thing in my testimony.

3 MS. VETTERHOFFER: Moving on to the  
4 point you brought up about the mass emission rates,  
5 on Page 6, you claim that the Board must include  
6 in the rule hourly emission rates for the sources  
7 not listed in Section 214.603 due to your contention  
8 that low-sulfur fuel standards are enforceable.

9 You already alluded to this a  
10 little, but you are aware that you can use a simple  
11 mass balance equation along with the fuel sulfur  
12 content and unit's maximum operating capacity to  
13 calculate the maximum hourly emission rate for a  
14 unit?

15 MR. SAHU: For some sources, you  
16 could do that. I don't fully understand what  
17 you mean by mass balance. If you're meaning  
18 stoichiometric chemistry to allow for -- I hear  
19 staff indicating that that's what they meant, it's  
20 more a chemistry calculation than mass balance,  
21 I understand what is being mentioned, but for  
22 reasons that we might get into, that doesn't fully  
23 explain how reducing sulfur content alone down  
24 to 15 ppm gives you the kind of reductions and

1 allow the emissions that I saw in the various  
2 modeling scenarios.

3 MS. VETTERHOFFER: Well, if you  
4 know the maximum sulfur content and you know the  
5 maximum operating capacity of a unit, you, in fact,  
6 know the maximum hourly emission rate for that unit,  
7 correct?

8 MR. SAHU: You could, yes, for some  
9 sources, right. But as I said, there are sources  
10 here for which they're not burning a particular  
11 fuel with a particular sulfur content.

12 Let me give you an example since  
13 you're talking in detail. If you look at the  
14 sources for Lemont, I calculated -- and I stopped  
15 counting after some time -- there are over 15  
16 flares. Flares are a type of combustion source.  
17 They are present in various types of facilities.  
18 They don't burn low-sulfur diesel in flares.  
19 Flares are burning different gasses that are being  
20 released due to operations at the facility.

21 So I'm not sure how one can use  
22 low-sulfur diesel limitations like you were just  
23 mentioning to calculate emissions from those  
24 types of sources. So I --

1 MS. VETTERHOFFER: We are only  
2 talking about the sources that are subject to  
3 the ultra-low sulfur diesel standards and we  
4 are only talking about the ultra-low sulfur  
5 diesel standard.

6 MR. SAHU: I understand, but I'm  
7 talking about the 1,789 sources that are in the  
8 modeling input files. If you want to carve out  
9 just the ultra-low sulfur diesel fuel ones, could  
10 you point me to someplace in the rule where after  
11 1,789 sources in Lemont and 345 sources in Pekin,  
12 you actually identify which of those limits are  
13 based only on ultra-low sulfur diesel. That could  
14 help.

15 That was what I was asking for  
16 is if you took the source list and said here are  
17 500 sources that have ultra-low sulfur diesel  
18 only as the driving force, we could do that. But  
19 I don't see how I could even understand which  
20 subset of the sources modeled were subject only  
21 to the ultra-low sulfur diesel limitation that  
22 you were speaking of.

23 MS. VETTERHOFFER: Did you or  
24 anyone in Sierra Club ever ask the Agency for

1 that information at the hearing or informally?

2 MR. SAHU: Informally, I asked  
3 several of -- I had two calls with staff and  
4 each time, I said, please provide the details  
5 of the emission calculations that have been  
6 used into the modeling.

7 MS. VETTERHOFFER: Did you specify  
8 you wanted to know which particular sources are  
9 burning ultra-low sulfur diesel fuel and those  
10 that are burning other types of fuel?

11 MR. SAHU: I asked for emission  
12 calculations for all the sources that have been  
13 used in the modeling files. So if -- you know,  
14 if you wanted me to ask for -- you know, get  
15 everybody on the phone call and say source number  
16 one, tell me the details. Source number two, tell  
17 me the details. I -- it's a difficult --

18 MS. VETTERHOFFER: I'm simply asking  
19 if you ever specifically asked the Agency for that  
20 information.

21 MR. SAHU: I believe I have several  
22 times.

23 MS. VETTERHOFFER: Back to the  
24 ultra-low sulfur diesel fuel standards and your

1 contention that the Board needs to include hourly  
2 emission rates for the sources that aren't listed  
3 in 214.603, are you aware that the Agency conducted  
4 these mass balance equations using the fuel sulfur  
5 content in the units maximum operating capacity when  
6 it obtained its modeling inputs?

7 MR. SAHU: That one, I have to say  
8 no because to be aware, I would have see those  
9 calculations that I've asked for and since I have  
10 not seen them, I cannot be aware.

11 MS. VETTERHOFFER: Are you also  
12 aware that the emission rates modeled by the Agency  
13 therefore reflect the maximum possible emissions  
14 from a given unit using low sulfur fuels?

15 MR. SAHU: Again, same answer. If  
16 I have not been able to see the calculations you  
17 speak of, I obviously cannot agree to what you just  
18 asked.

19 MS. VETTERHOFFER: On Page 8, you  
20 claim that the vast majority of SO2 reductions are  
21 coming from hundreds of small sources that have no  
22 continuous emissions monitoring systems or CEMS  
23 installed and that the public won't actually know  
24 how much SO2 these facilities emit.

1                   You are aware, though, that  
2 most of the reductions you're referencing from  
3 small sources are at allowable emissions, not  
4 actual emissions, correct?

5                   MR. SAHU: Yes.

6                   MS. VETTERHOFFER: Are you suggesting  
7 that the Board require that every SO2 emitting  
8 source in this state, no matter how small, install  
9 a CEMS?

10                  MR. SAHU: Absolutely not. That's  
11 not what I say in my testimony. So that's a  
12 mischaracterization of what I said there.

13                  MS. VETTERHOFFER: Are you claiming  
14 that the only way to determine how much sulfur a  
15 source is emitting is by having a CEMS?

16                  MR. SAHU: Oh, no. There are many  
17 other ways you can -- and again, it's not sulfur.  
18 I think you meant sulfur dioxide. It is not by  
19 CEMS. It can be by other means. It all depends  
20 on the source and the actual type of source.

21                  MS. VETTERHOFFER: On Page 7 of your  
22 testimony, you include Table A, which you state  
23 includes the top 40, by emission rate, sources  
24 modeled for the Lemont non-attainment area, but

1 point out that most of these sources, roughly  
2 80 percent, are not included among the sources  
3 for which emissions limits are provided in  
4 Section 214.603.

5 Are you aware that 22 of the 40  
6 listed units in Table A are actually in Indiana?

7 MR. SAHU: Oh, yes, of course, but  
8 I don't understand the implication of that. In  
9 order to -- if I can finish my answer.

10 MS. VETTERHOFFER: Yes.

11 MR. SAHU: In order to stand by the  
12 modeling that has been done to assure non-attainment  
13 becomes attainment in Pekin and Lemont, you have to  
14 have contributions from the neighboring state. I  
15 understand and you model that. The Agency has  
16 modeled that.

17 Having done so, you can't say,  
18 well, we have really nothing to do with the sources  
19 in Indiana. They are contributing, according to  
20 your modeling, to attainment -- or non-attainment  
21 in your state -- in Illinois. Has there been a  
22 letter sent to Indiana, IDEM, saying, oh, by the  
23 way, the way we have sources in your state that  
24 we believe contribute to non-attainment in our

1 state, and, therefore, we think these are the  
2 emission rates at which we think they should be  
3 controlled?

4                   You know, it's an accounting  
5 issue. If you're going to be impacted by emissions  
6 from neighboring states, you can't simply say,  
7 well, you know, that's what our modeling shows,  
8 but we really can't do anything about these sources.  
9 Then how do you assure that you're going to maintain  
10 your attainment status based on your own modeling?

11                   MS. VETTERHOFFER: Do you have any  
12 information that the Indiana sources are culpable  
13 sources or the Lemont non-attainment area?

14                   MR. SAHU: Could you tell me what you  
15 mean by culpable in this question so I understand  
16 it fully?

17                   MS. VETTERHOFFER: Information that  
18 these sources modeled as causing non-attainment in  
19 Lemont non-attainment area.

20                   MR. SAHU: Well, if I understand  
21 your modeling, you've modeled these sources and  
22 all the other sources as contributing something  
23 to the model non-attainment. Yes, I recognize  
24 there were a few sources that showed zero to the

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1 position that the spreadsheet I got from you as  
2 a contribution, but there are hundreds of sources,  
3 including sources in Indiana, that had non-zero  
4 contributions to the concentration that you have  
5 modeled -- that the Agency has modeled and that's  
6 the only culpability analysis I've seen from the  
7 Agency.

8 MS. VETTERHOFFER: At this time,  
9 David Bloomberg wants to ask a couple of follow-up  
10 questions due to the technical nature of the  
11 response.

12 HEARING OFFICER ROBERTSON: Before  
13 we get to that, if I could just make a comment,  
14 I saw a hand go up, we will just kind of finish  
15 with the Agency question first and then we'll  
16 move on to additional questions after that  
17 assuming that was a question in the back.

18 MS. SANDERS: Yes.

19 HEARING OFFICER ROBERTSON: Okay.  
20 Thank you.

21 MS. SANDERS: Does this microphone  
22 work? Hello?

23 HEARING OFFICER ROBERTSON: Can we --  
24 yes, ma'am?

1 MS. SANDERS: Sandy Sanders. In  
2 listening to this, I just wonder at the beginning --

3 HEARING OFFICER ROBERTSON: Ma'am,  
4 I'm sorry. If it's okay, we're going to continue  
5 with the Agency questions.

6 MS. SANDERS: It has to do with what  
7 she said. Can I make a comment?

8 HEARING OFFICER ROBERTSON: At this  
9 time, if you don't mind waiting. Thank you.

10 MS. SANDERS: Oh, I thought you were  
11 concluding and you wanted some --

12 HEARING OFFICER ROBERTSON: Oh, no. I  
13 apologize. I conclude the Agency questions and then  
14 take additional questions.

15 MS. SANDERS: Well, I just wanted to  
16 say something so you understood what context that  
17 was related to.

18 HEARING OFFICER ROBERTSON: Yes, but  
19 you are welcome to make that clarification and  
20 comment following the questions. Thank you.

21 Can we have Mr. Bloomberg sworn  
22 in before he asks just for safety reasons? Thank  
23 you.

24 MS. VETTERHOFFER: Actually, at this

1 time, you might as well swear all three Agency --  
2 well, Mr. Bloomberg, Mr. Davis and Mr. Sprague  
3 because it is possible later in the hearing they  
4 will have either testimony or answers to questions.

5 HEARING OFFICER ROBERTSON: That's  
6 fine. Thank you.

7 THE COURT REPORTER: Will the three  
8 of you raise your right hands?

9 Do you swear the testimony  
10 you're about to give is the truth -- or answers  
11 to questions -- is the truth, the whole truth and  
12 nothing but the truth, so help you God?

13 MR. BLOOMBERG: I do.

14 MR. SPRAGUE: I do.

15 MR. DAVIS: I do.

16 MR. BONEBRAKE: Mr. Hearing Officer,  
17 just so it's clear, you're not requesting that  
18 Mr. Bloomberg be sworn in in order to ask questions  
19 of the witness as opposed to providing testimony,  
20 correct?

21 HEARING OFFICER ROBERTSON: Again,  
22 I'm sorry. I just ask that you use the microphone  
23 so everyone can hear. But the question was  
24 just that he's being sworn in purely for asking

1 questions and it is no, it's just depending on  
2 how the questions lead, if they lead to  
3 non-questions, any kind of comments.

4 MR. BONEBRAKE: Thank you.

5 HEARING OFFICER ROBERTSON: It's for  
6 safety reasons, as I mentioned. Thank you.

7 MR. BLOOMBERG: The question that we  
8 were trying to get at is do you have modeling that  
9 shows that these Indiana sources are significantly  
10 culpable such that they specifically need to be  
11 reduced?

12 MR. SAHU: Mr. Bloomberg, you now  
13 introduce further confusion by your use of the word  
14 significant. I mean, all I'm saying is you've done  
15 modeling. These sources have been included in the  
16 modeling. If you believe that these sources were  
17 not significant or not significantly culpable, to  
18 use your terms, why did you include them in your  
19 modeling?

20 All I'm saying is if they are  
21 in your modeling and they are within the top 40  
22 in terms of emissions, all I'm saying is it doesn't  
23 matter where they are, they have been included  
24 in your modeling. You are the ones that made the

1 choices to include these sources in your modeling  
2 and here you're asking me if I believe that they  
3 are significant or significantly culpable. I don't  
4 think that's for me to decide. I analyzed your  
5 modeling.

6 MR. BLOOMBERG: So if the Agency  
7 did modeling using every potential source in the  
8 areas or near the areas that could possibly  
9 impact the receptors in the non-attainment area,  
10 isn't it true that some of those will not need  
11 actual reduction?

12 MR. SAHU: Absolutely. Some of  
13 them will not need actual reduction. I just  
14 couldn't answer if all of the Indiana resources  
15 fell into that category.

16 MR. BLOOMBERG: Okay. So do you  
17 think that the Agency would have probably taken  
18 that into consideration in its rulemaking and  
19 eventual demonstration of attainment?

20 MR. SAHU: Well, I am looking at all  
21 of the things that the Agency has done. I realize  
22 that you have bifurcated this rulemaking into the  
23 next step, which is a review of the modeling and  
24 everything I have seen doesn't even get into near

1 the detail that you're implying in your questions  
2 right here about these distinctions between  
3 different classes of sources and who is culpable  
4 and who is significantly culpable and whose  
5 emissions are dependent on fuel and whose emissions  
6 are not. None of this is discussed in the technical  
7 support documents that I have seen that you have so  
8 kindly provided in the public report record.

9 MS. VETTERHOFFER: Moving on, on  
10 Pages 8 to 9 of your testimony, you say Table B  
11 shows sources with the highest modeled impacts at  
12 the peak receptor in Lemont and claim that there  
13 is concern over limits not being set for sources  
14 with the highest impact.

15 Based on your table, what source  
16 has the highest impact?

17 MR. SAHU: The very highest impact,  
18 and since the table is ordered by impact, the  
19 highest being first, that would be the first row,  
20 I believe it's the power unit, the Will County  
21 Unit 4, that has the highest -- single highest  
22 impact.

23 MS. VETTERHOFFER: Does that source  
24 have the limit in 214.603?

1 MR. SAHU: Yes, that source does.

2 MS. VETTERHOFFER: Do you agree  
3 that if you add up all of the other sources in  
4 Table B, except Midwest Generation's Will County  
5 Unit 4, which is in the top, that equates to only  
6 approximately 14 percent of the total contribution  
7 from all sources within the table?

8 MR. SAHU: I will -- I will accept  
9 your math. I'm not adding these numbers in my  
10 head right now, but these are the rank order of  
11 the sources impacting -- by your modeling. Again,  
12 as Mr. Bloomberg said, we haven't seen or had a  
13 chance to analyze all of modeling, which is coming  
14 in the next rulemaking, but based on current  
15 modeling, these are your results.

16 All I'm saying is these are  
17 your top 20 impacts. Yes, Will County Unit 4 is  
18 a very large contributor.

19 MS. VETTERHOFFER: Do you know  
20 whether the peak receptor referenced in your  
21 Table B models attainment?

22 MR. SAHU: My understanding is, yes,  
23 the peak receptor does model -- I think it was  
24 modeling it close to attainment per 191 or so

1 micrograms per cubic meter. The standard is  
2 196, I believe. It's something in that range.

3 MS. VETTERHOFFER: On Pages 10  
4 through 12 of your testimony, you repeatedly  
5 questioned the Agency's justification Powerton's  
6 30-day average emission limitation and claim that  
7 the Agency's TSD does not provide all of the  
8 technical information US EPA's guidance requires  
9 to support a 30-day average.

10 First, just to clarify, you  
11 state that states are required to set supplemental  
12 limits in addition to the longer term average  
13 limits. Isn't it true, though, that US EPA does  
14 not mandate the use of supplemental limits?

15 MR. SAHU: It is based on guidance,  
16 but I'm answering this as a technical person. What  
17 does it take to have a set of limits that are  
18 going to give you the assurance of attainment?

19 MS. VETTERHOFFER: So you're not  
20 claiming that US EPA requires states to set  
21 supplemental limits?

22 MR. SAHU: I think I will concede  
23 that the word requires here is not meant in a  
24 legal sense. It is meant as increasing the

1 robustness of your technical support.

2 My sense is this Board and  
3 you, staff, and everybody else don't want to  
4 do this over and over again. You want to get  
5 attainment and stay in attainment. How do you  
6 create a set of circumstances of your rule to  
7 allow you to do that with some margin, with  
8 some robustness so you don't have to go through  
9 this wonderfully exhilarating exercise time and  
10 time again?

11 MS. VETTERHOFFER: Have you spoken  
12 to US EPA personnel at Region 5 regarding the  
13 Illinois EPA's justification for the 30-day  
14 average and whether they believe the Agency's  
15 analysis is adequate based on US EPA's guidance?

16 MR. SAHU: I have not spoken to  
17 US EPA on this rulemaking.

18 MS. VETTERHOFFER: Are you aware  
19 that the Illinois EPA has itself submitted it's  
20 justification for the 30-day average to US EPA  
21 Region 5?

22 MR. SAHU: I don't doubt that. I  
23 saw what was provided in your technical support  
24 document. I saw questions from the Board about

1 this very issue. I was somewhat mystified as to  
2 the reason that staff gave as to how they came  
3 up with the 30-day average in relying on some  
4 questions about how controls played into that  
5 aspect.

6 So I was looking at all of those  
7 issues, which I discussed in Pages 10 through 12  
8 of my testimony.

9 MS. VETTERHOFFER: Are you aware  
10 that the US EPA has approved the Agency's  
11 justification and found it consistent with the  
12 very guidance that you cite in your testimony?

13 MR. SAHU: I have not talked with  
14 the EPA. So I'll have to take your word for it.  
15 Again, I have not discussed this with the EPA.

16 MS. VETTERHOFFER: On Page 13 of  
17 your testimony, you claim that Powerton has  
18 exceeded 6,000 pounds per hour over the period  
19 of 2013 to 2014. You're aware, though, that  
20 Powerton was not required to comply with the  
21 30-day average in 2012, 2013 or 2014, correct?

22 MR. SAHU: Yes. That information  
23 was provided from publically available information  
24 for context. I'm just discussing the actual history

1 of emissions at Powerton and that's simply data  
2 that power plants report to the public and those  
3 are the facts.

4 MS. VETTERHOFFER: You are aware  
5 that Powerton is not actually required to comply  
6 with the 30-day limit until January 1, 2017,  
7 correct?

8 MR. SAHU: Sitting here, I don't  
9 know all of the limits in Powerton's permit. So  
10 again --

11 MS. VETTERHOFFER: I'm not talking  
12 about their permit. I'm talking about in the  
13 Agency's proposed rule, is Powerton required to  
14 comply with the 30-day average limitation in  
15 Section 214.603 prior to January 1, 2017?

16 MR. SAHU: And my answer, ma'am,  
17 is exactly what I said. There could be other  
18 limits. There are many limits in permits.

19 Would you -- would you concede  
20 this is a limit that this is coming new? All  
21 I'm saying is I don't know the existing limits --  
22 whether they have an existing 30-day limit or  
23 not. I just can't remember that.

24 This new limit is coming in

1 the future. I agree with that. But all I'm  
2 saying is I don't know, sitting here, all of  
3 the other existing limitations that Powerton  
4 has.

5 MS. VETTERHOFFER: Are you familiar  
6 with the Agency's compliance deadline for its  
7 proposed changes to section -- to its proposed  
8 addition in Subpart (a)(a) in Part 214?

9 MR. SAHU: I just answered the  
10 question that this rulemaking has --

11 MS. VETTERHOFFER: I'm asking you  
12 about our compliance deadline.

13 MR. SAHU: Yes.

14 MS. VETTERHOFFER: Do you know what it  
15 is?

16 MR. SAHU: Yes.

17 MS. VETTERHOFFER: That's all I'm  
18 asking.

19 MR. SAHU: Yes.

20 MS. VETTERHOFFER: What is the  
21 compliance deadline?

22 MR. SAHU: I believe it's 2017.

23 MS. VETTERHOFFER: Thank you.

24 Are you aware that the Agency

1 has specifically advised the Sierra Club that  
2 Midwest Generation intends to install additional  
3 dry sorbent injection or DSI controls on both  
4 Powerton units prior to January 1, 2017?

5 MR. SAHU: Yes. That is my  
6 understanding that that's what staff have told the  
7 Sierra Club.

8 MS. VETTERHOFFER: Right now, I have  
9 no further questions. Thank you, Mr. Sahu.

10 MR. SAHU: Thank you.

11 HEARING OFFICER ROBERTSON: Thank you.  
12 Ms. Bugel, did you have any questions?

13 MS. BUGEL: I do have some follow-up  
14 on the Agency's questions, but I'm sure others have  
15 questions. I can save mine for last as well.

16 HEARING OFFICER ROBERTSON: Yes.  
17 Sure. We will go ahead with the other questions  
18 at this time then. I'm sorry. Again, I will just  
19 point out please just use the microphones if you  
20 can so that everyone in the room can hear.

21 Mr. Bonebrake?

22 MR. BONEBRAKE: I have some additional  
23 questions. I believe counsel for IERG does as well.  
24 I will just go first?

1 MS. ALLGIRE: Sure.

2 MR. BONEBRAKE: Good morning,  
3 Mr. Sahu.

4 MR. SAHU: Good morning, counsel.

5 MR. BONEBRAKE: We've had an  
6 opportunity to meet before, have we not?

7 MR. SAHU: We have. Over the years,  
8 yes.

9 MR. BONEBRAKE: In fact, I took your  
10 deposition back in 2014; is that correct?

11 MR. SAHU: Has it been that long?  
12 Yes, time flies. Thank you for reminding me again.

13 MR. BONEBRAKE: Who retained you to  
14 provide testimony today?

15 MR. SAHU: The Sierra Club.

16 MR. BONEBRAKE: And when were you  
17 retained?

18 MR. SAHU: Specifically, to provide  
19 testimony, probably I was asked over a few weeks  
20 after when I prepared the pre-filed, but I have  
21 been assisting on this and evaluating the technical  
22 issues for several months.

23 MR. BONEBRAKE: And how many hours  
24 would you say you spent, Mr. Sahu, on this matter?

1 MR. SAHU: I -- I can't tell you  
2 offhand. I mean, I invoiced the Sierra Club for  
3 the time spent and they would have those records.

4 MR. BONEBRAKE: And did you  
5 personally prepare the testimony that was filed  
6 with your name on it in this matter, Mr. Sahu?

7 MR. SAHU: Yes. I did drafts and  
8 obviously a draft was reviewed at some point, but  
9 I prepared the testimony.

10 MR. BONEBRAKE: And did someone  
11 provide comments on your draft?

12 MR. SAHU: Yes. I'm sure people  
13 provided comments. I don't know who all provided  
14 comments.

15 MR. BONEBRAKE: Did the Sierra Club  
16 provide comments on your draft?

17 MR. SAHU: Some folks from Sierra  
18 Club. Again, I don't know who all did.

19 MR. BONEBRAKE: And did you make  
20 revisions to your draft based upon Sierra Club  
21 comments?

22 MR. SAHU: Sure.

23 MR. BONEBRAKE: Were you paid to  
24 prepare your testimony in this matter?

1 MR. SAHU: Well, I've invoiced them.  
2 I hope they pay me.

3 MR. BONEBRAKE: Are you paid by the  
4 hour, Mr. Sahu?

5 MR. SAHU: Yes. I bill by the hour  
6 typically.

7 MR. BONEBRAKE: What is your hourly  
8 charge?

9 MR. SAHU: \$150 an hour.

10 MR. BONEBRAKE: Are you being paid to  
11 testify here today?

12 MR. SAHU: Yes.

13 MR. BONEBRAKE: Are you being paid by  
14 the Sierra Club?

15 MR. SAHU: Yes, I believe.

16 MR. BONEBRAKE: I took a look at  
17 your CV with interest. It looks like you've done  
18 a lot of testifying in the past, Mr. Sahu. Is it  
19 correct that you've testified on behalf of the  
20 Sierra Club in the past on the order of something  
21 like 30 different matters?

22 MR. SAHU: Oh, I haven't counted  
23 them, but I've been doing this work for -- since  
24 I had hair. So I will not be anymore specific

1 than that. That doesn't surprise me.

2 MR. BONEBRAKE: So 30 doesn't  
3 surprise you, does it?

4 MR. SAHU: No, it doesn't.

5 MR. BONEBRAKE: And you work from  
6 your house?

7 MR. SAHU: Yes. I work out of my  
8 home office.

9 MR. BONEBRAKE: What percentage  
10 of your earnings over the last, let's say, 36  
11 months, Mr. Sahu, have been contributed to the  
12 Sierra Club?

13 MR. SAHU: Again, I can't answer  
14 that. I have a wide variety of clients. And  
15 earnings fluctuate weeks to months. I couldn't  
16 tell you sitting here.

17 MR. BONEBRAKE: You bill clients,  
18 Mr. Sahu?

19 MR. SAHU: I do, but I also took  
20 an oath to tell the truth and all that and I  
21 just couldn't hazard a number as to the actual  
22 percent or some -- some fee for the last 36 months.

23 MR. BONEBRAKE: Surely you have  
24 an idea of the amount that you billed the Sierra

1 Club over 36 months as a businessman billing  
2 clients.

3 MR. SAHU: No. That's your  
4 assumption. I do not. I do not go back and --  
5 I cannot give you an accounting of that right now.

6 MR. BONEBRAKE: What about over the  
7 last 12 months?

8 MR. SAHU: Same answer.

9 MR. BONEBRAKE: Mr. Sahu, you're not  
10 a lawyer, are you?

11 MR. SAHU: No, I'm not.

12 MR. BONEBRAKE: Did you go to law  
13 school?

14 MR. SAHU: No, I did not go to law  
15 school.

16 MR. BONEBRAKE: You don't offer legal  
17 opinions, do you, Mr. Sahu?

18 MR. SAHU: No. I'm not offering legal  
19 opinions.

20 MR. BONEBRAKE: Have you ever operated  
21 a power plant?

22 MR. SAHU: No. I'm a consultant and  
23 an air quality consultant and a mechanical  
24 engineer. As part of becoming a mechanical

1 engineer, I have worked in power plants  
2 for training, but I've not operated a power  
3 plant. Actually, I don't know any single  
4 person that can claim that they've operated a  
5 power plant.

6 MR. BONEBRAKE: Have you ever  
7 managed any operations in a power plant?

8 MR. SAHU: No.

9 MR. BONEBRAKE: Have you ever managed  
10 a pollution control device in a power plant?

11 MR. SAHU: Not in a power plant.

12 MR. BONEBRAKE: So you've never  
13 managed a Trona system before, a pollution control  
14 in power plants; is that correct?

15 MR. SAHU: No.

16 MR. BONEBRAKE: Is Trona injection  
17 also known as DSI?

18 MR. SAHU: Well, DSI is broader and  
19 Trona is one particular type of reagent that can  
20 be used in DSI systems. So people use other  
21 reagents as well under the rubric of DSI.

22 MR. BONEBRAKE: And what does DSI  
23 stand for?

24 MR. SAHU: Dry sorbent injection.

1 MR. BONEBRAKE: And you used that  
2 terminology, I think, in your testimony, did you  
3 not, Mr. Sahu?

4 MR. SAHU: Yes.

5 MR. BONEBRAKE: And is DSI a form of  
6 dry scrubbing?

7 MR. SAHU: There, we would have not  
8 quite -- there's scrubbing action inherent in DSI,  
9 but dry scrubbers are a different type of control  
10 device than DSI.

11 MR. BONEBRAKE: But Trona has a dry  
12 scrubbing action in it, correct?

13 MR. SAHU: The injection of the Trona  
14 happens into the hard gasses, into the flue gasses  
15 in a power plant in a dry sorbent system. In a dry  
16 scrubber secondary, it's actually a wet reagent that  
17 is injected into a scrubber. So they're really not  
18 the same control device by any means.

19 MR. BONEBRAKE: Have you ever designed  
20 a DSI system for a power plant?

21 MR. SAHU: Not for power plants, no.

22 MR. BONEBRAKE: Do you know how  
23 much -- strike that.

24 Do you know the elements of a

1 Trona injection system in a power plant?

2 MR. SAHU: Yes.

3 MR. BONEBRAKE: What are those  
4 elements, Mr. Sahu?

5 MR. SAHU: Well, the Trona is mined  
6 in the U.S. It happens to be mined just  
7 predominately in Wyoming. Although there's some  
8 in California. It's a natural occurring mineral.

9 Once it's mined, it has to be  
10 sized, transported to the site, of course, and  
11 the sizing is a very key part of the first  
12 preparation step. You bring the Trona and you  
13 decide whether you're going to get it sized the  
14 right size or you're going to have some grinding  
15 equipment onsite to further lower the size of the  
16 Trona particles if you want to do that.

17 Once you do that, you have to  
18 convey those sized particles into the flue gas  
19 systems. So you have to decide where you are  
20 going to inject and that depends on many factors  
21 including the type of back end or exhaust gas  
22 system of the particular unit that you are talking  
23 about.

24 The temperature is very important

1 and, of course, it has to precede the particular  
2 control device that is going to capture the -- this  
3 spent Trona.

4           So depending on where you decide  
5 to inject that, you are going to have to decide  
6 where to locate your Trona sizing and your capacity,  
7 your day bends and so on why you pneumatically  
8 typically convey that. So you need blowers and  
9 gas conditioning systems. Trona doesn't like  
10 moisture. So you might have some nitrogen  
11 blanketing equipment that goes with it.

12           In any case, you get the Trona  
13 over to the point of injection and you have to  
14 then decide how to distribute that Trona, which  
15 is a fine powder into the rather large duct  
16 cross-section area allowing for good mixing and to  
17 allow for good chemical reactions to occur.

18           That will also depend on what  
19 else is going on in the unit. Does it have NAAQS  
20 control system? Does it have some Mercury control  
21 system? Does it have, you know, the air preheater  
22 and where is it located?

23           So all of these are design  
24 elements and then you have to allow for enough

1 time for the gas to react until the Trona then  
2 is spinned and captured in the particular control  
3 device.

4 So these are some of the examples  
5 of design issues that have to be dealt with for  
6 Trona.

7 MR. BONEBRAKE: And in all of the  
8 actions and elements that you just described need  
9 to work together in order to make a Trona system  
10 work effectively; is that correct?

11 MS. SAHU: Well, these are design  
12 choices. The fundamental system is fairly simple.  
13 You're injecting a solid and very fine form into  
14 a gaseous stream and allowing enough time to react  
15 and all of the steps that I mentioned have to do  
16 with optimizing a system to getting the best bang  
17 for buck, if you will.

18 MR. BONEBRAKE: You had an exchange  
19 with Ms. Vetterhoffer regarding the Lemont area  
20 and limits or requirements or sources in the Lemont  
21 area.

22 Do you know, Mr. Sahu, what data  
23 was utilized by IEPA to recommend the non-attainment  
24 designation for the Lemont area?

1 MR. SAHU: Well, I haven't looked  
2 at that, but my presumption is it would be the  
3 monitoring data from several monitors in the area  
4 and that's typically the data that is used in  
5 these attainment/non-attainment evaluations.

6 MR. BONEBRAKE: And US EPA, in  
7 designating the Lemont area as non-attainment,  
8 also would have relied upon the monitored data  
9 from that area, isn't that correct, Mr. Sahu?

10 MR. SAHU: Again, you would have  
11 to ask the US EPA as to what they may have or  
12 not relied upon. I haven't talked to the US EPA.

13 MR. BONEBRAKE: And are you aware  
14 that those determinations are publically available  
15 documents?

16 MR. SAHU: Yes.

17 MR. BONEBRAKE: You haven't looked at  
18 those documents?

19 MR. SAHU: I have, but I thought your  
20 question was what has the US EPA relied upon and,  
21 you know, I'm saying I haven't talked to the EPA  
22 about this.

23 MR. BONEBRAKE: Wouldn't the US EPA  
24 have identified it?

1 MR. SAHU: I haven't seen what they've  
2 identified in writing, but, you know, they may have  
3 relied on lots of things.

4 MR. BONEBRAKE: Is it correct that  
5 non-attainment designations were made by US EPA  
6 with respect to the Lemont area based on an average  
7 of three year's SO2 data?

8 MR. SAHU: I can't remember which  
9 three years, but I will take your word for it.

10 MR. BONEBRAKE: But a three-year  
11 period of time?

12 MR. SAHU: That doesn't surprise me.

13 MR. BONEBRAKE: And do you have any  
14 recollection whether that period preceded 2012?

15 MR. SAHU: Yeah. I think it preceded  
16 2012, right in the middle of -- as we were coming  
17 out of the recession basically.

18 MR. BONEBRAKE: And do you know  
19 if monitored data from the Lemont monitor that  
20 was used for the attainment designation or  
21 non-attainment designation by US EPA has available  
22 data during 2012 through 2014?

23 MR. SAHU: It may have. I have  
24 not -- I don't -- I couldn't answer that here.

1 I haven't looked at that data recently over the  
2 last few weeks.

3 MR. BONEBRAKE: You haven't looked  
4 at the data from the period 2012 to 2014 on the  
5 Lemont monitor to determine whether or not that  
6 data is showing improvement in the air quality  
7 or whether it is showing compliance with the  
8 National Ambient Air Quality Standards; is that  
9 correct?

10 MR. SAHU: I have not looked at that,  
11 no.

12 HEARING OFFICER ROBERTSON: Excuse me.  
13 Mr. Bonebrake, I apologize. Can you just maybe pull  
14 the microphone a bit closer?

15 MR. BONEBRAKE: Sure. Thank you.

16 HEARING OFFICER ROBERTSON: Thank  
17 you.

18 MR. BONEBRAKE: I have a follow-up  
19 question for Mr. Sahu. I was going to be referring  
20 in this question to an exhibit that has already  
21 been introduced into the Board's record and it is  
22 amended testimony of David Kolaz on behalf of IERG,  
23 which is Exhibit A, and I have a copy of that for  
24 the witness, if you wouldn't mind passing that.

1 Thank you. I have a couple additional copies that  
2 I'm assuming others have access to since it's a part  
3 of the Board record.

4 MS. BUGEL: Can I get a copy? Thank  
5 you.

6 MR. BONEBRAKE: Ms. Vetterhoffer, do  
7 you have a copy?

8 MS. VETTERHOFFER: I do. Thank you.

9 MR. BONEBRAKE: If you have a chance  
10 to look at the Exhibit, and I recognize you're  
11 probably looking at this for the first time.

12 MR. SAHU: I've seen that before, but  
13 this is the actual data on the very last page?

14 MR. BONEBRAKE: Yes. That is correct.  
15 You knew where I was going.

16 MR. SAHU: Yeah. I can see the data,  
17 yes.

18 MR. BONEBRAKE: And you see the data  
19 reported with respect to the Lemont monitor?

20 MR. SAHU: Yes.

21 MR. BONEBRAKE: And you see the 2012  
22 to 2014 three-year average from that monitor being  
23 described as 66 parts per million, do you see that?

24 MR. SAHU: Yes. I also see the

1 individual data, which is one way for 2012, 73  
2 for 2014 and 16 for 2014.

3 MR. BONEBRAKE: That individual data  
4 reflects a trend down in terms of concentration;  
5 does it not?

6 MR. SAHU: Yes.

7 MR. BONEBRAKE: And the three-year  
8 average data from 2012 to 2014 reflects compliance  
9 based upon the monitoring data SO2 one-hour  
10 standard, does it not, for the Lemont area?

11 MR. SAHU: I would think it does,  
12 yes.

13 MR. BONEBRAKE: So if, in fact,  
14 US EPA were making a designation regarding  
15 attainment as of today for the Lemont area based  
16 upon the monitored data, would not designation  
17 be attainment?

18 MR. SAHU: Again, US EPA would  
19 have to make that determination. They would  
20 certainly consider this data and they might even  
21 consider how -- the reasons why the trend is  
22 what it is. It's the -- are there sources that  
23 are shut down that could emit back? Are there fuels  
24 that have changed? Are certain goals -- are

1 power plants shut down and that's what's  
2 contributing to this or if there's a new gas-fired  
3 or a new coal-fired units.

4 I think they have to look at  
5 the totality of the circumstances and data is  
6 one of them, but they have to look at some  
7 reasonable explanation that explains the trend  
8 and then the important question is what is  
9 reliability of the trend? Is the trend likely  
10 to stay and is it robust? Is it going to be  
11 permanent or is it going to climb back up because  
12 other things can change?

13 I think they would have to  
14 look at not just the data, but the circumstances  
15 that created the data.

16 MR. BONEBRAKE: But this particular  
17 data point, that is, monitor data from 2012 through  
18 2014, supports an attainment designation as opposed  
19 to a non-attainment designation, correct?

20 MR. SAHU: I think I stand by my  
21 more elaborate answer. I mean, all I'm trying  
22 to say is yes, the data are what they are, but  
23 you have to look at the context of which the  
24 data were created if that underlying context

1 is robust, then they might conclude one way or  
2 if not, if it's temporary, let's say, something  
3 happened to a source that was shut down for a  
4 long time in 2014 and in 2015, it might come  
5 back up and contribute, well, that's a material  
6 issue that the data itself doesn't tell.

7           So you have to look at the  
8 emissions and what contributed to that. Did we  
9 have very favorable and unusual wind patterns in  
10 2014 that are not representative of normal wind  
11 patterns?

12           Again, these are things that  
13 you have to look at. So data is an important  
14 first step, but I don't think it's the last step  
15 in that determination.

16           MR. BONEBRAKE: You just gave me a  
17 series of hypotheticals. Are you, in fact, aware  
18 of whether any of these hypotheticals apply?

19           MR. SAHU: No. I'm simply saying  
20 that to make a designation, you have to look at  
21 the data and look at the underlying story that  
22 creates the data and then make some determinations  
23 based on the fungibility or robustness of the  
24 underlying scenario.

1 MR. BONEBRAKE: I would like to ask  
2 you a few questions, Mr. Sahu, pertaining to your  
3 written testimony on Page 13. This relates to  
4 the review of the Powerton emission data that you  
5 recite in this portion of your testimony.

6 You looked at Powerton emission  
7 data from the period 2012 to 2014; is that correct?

8 MR. SAHU: Yes. I mean, there is  
9 some data available for 2015, but it's not complete,  
10 obviously. So I just looked at the last three full  
11 years of data that were available.

12 MR. BONEBRAKE: Now, on Page 13 under  
13 Subsection (a), the second sentence, you say this  
14 includes the time period with dry sorbent injection  
15 installed at one of the two units at that plant.  
16 Do you see that, Mr. Sahu?

17 MR. SAHU: Yes.

18 MR. BONEBRAKE: Which of the two units  
19 are you referring to?

20 MR. SAHU: Well, I mean, in various  
21 place, Powerton is referred to as four units or  
22 two units. I mean, there's Units 51, 52 and 61,  
23 62. Sometimes there's Units 5 and 6.

24 In any case, one of those --

1 two of the four are, if you will, had injection --  
2 again, the data doesn't tell me how much injection,  
3 but I saw that starting November of 2014, if memory  
4 serves, a unit had lower SO2 emissions indicating  
5 that DSI had been implemented roughly since that  
6 time that fell within my time period. I was looking  
7 at the data.

8 MR. BONEBRAKE: So when you say in  
9 your testimony that this includes the time period  
10 with dry sorbent injection, what you really meant  
11 was that the 36 months you reviewed contained about  
12 a month and a half of the time when sorbent  
13 injection was used?

14 MR. SAHU: Yeah. I mean, I make  
15 that very clear. I think we had discussions  
16 with staff and as I say, the data are what they  
17 are. I mean, they just began -- and they had  
18 done testing before, but I'm looking at continuous  
19 injection, which at least they reported to EPA  
20 as happening somewhere around the middle of  
21 November of 2014.

22 MR. BONEBRAKE: When you say reported  
23 to IEPA --

24 MR. SAHU: No, to US EPA.

1 MR. BONEBRAKE: Now, you say you  
2 observed an hourly emission rate as high as 17,518  
3 pounds per hour; is that correct?

4 MR. SAHU: That's just what was in  
5 the data, right.

6 MR. BONEBRAKE: And you say the  
7 90th percentile -- well, strike that.

8 Mr. Sahu, do you indicate in your  
9 testimony the 90th percentile hour emission rate  
10 with respect to the data you reviewed?

11 MR. SAHU: Not the exact number. I  
12 mean, I have the analysis. I just simply say it was  
13 over 6,400 pounds an hour.

14 MR. BONEBRAKE: Somewhere around  
15 6,400 pounds per hour?

16 MR. SAHU: Yeah. Maybe slightly  
17 higher than that.

18 MR. BONEBRAKE: What was the 50th  
19 percentile, Mr. Sahu?

20 MR. SAHU: I don't remember that  
21 offhand. Again, we are talking about the nature  
22 of the modeling and so on. You tend to look at  
23 emission rates that are at the higher upper part  
24 of the table, so to speak. You don't use average

1 emission to do the kind of modeling that the state  
2 has done.

3 MR. BONEBRAKE: Well, you saw emission  
4 rates below 3,452 pounds per hour, did you not?

5 MR. SAHU: Yes, yes, of course. There  
6 were exceedances and there were numbers below as  
7 well, of course.

8 MR. BONEBRAKE: By the way, when you  
9 say exceedances, you understand, do you not, that  
10 there's no such limit 3,452 pounds per hour at the  
11 Powerton plant as of today?

12 MR. SAHU: Right. And I mean that  
13 purely in the English language sense. Not in any  
14 legal sense.

15 MR. BONEBRAKE: Mr. Sahu, it is  
16 correct then that in the data you looked at, you  
17 saw a variation in emission rates from less than  
18 3,452 pounds per hour to over 17,000?

19 MR. SAHU: Sure. There were times  
20 when the unit was shut down. When units were shut  
21 down, they had very little -- very few emissions.  
22 Of course, you have a wide range of emissions when  
23 units are shut down for maintenance in which case  
24 they have little to no emissions and they have

1 the full range.

2 MR. BONEBRAKE: And even during  
3 normal operations, you saw periods, did you not,  
4 with emission rates below 3,452 pounds per hour?

5 MR. SAHU: Yeah. Normal operation  
6 of units does imply units running at very low --  
7 lower in the evenings, nighttime, and so on. It  
8 wouldn't surprise me that the emissions were lower  
9 at certain times of day and during certain seasons  
10 of the months. That's normal for a unit like this.

11 MR. BONEBRAKE: And you understand,  
12 do you not, Mr. Sahu, that additional Trona  
13 injection means a plan for Powerton Unit 6 by  
14 Midwest Generation?

15 MR. SAHU: That's what Illinois EPA  
16 told the Sierra Club. There was no specificity as  
17 to time and it again, of course, no specificity as  
18 to design or what was -- in fact, I didn't know it  
19 was Trona until, counsel, you pointed it out. It  
20 could have been some other DSI reagent, but those  
21 kind of details obviously are not available with any  
22 sort of reliability.

23 MR. BONEBRAKE: And are you also aware  
24 that Midwest Generation plans to install a DSI

1 system with respect Powerton?

2 MR. SAHU: Well, yes. And I'm  
3 also aware, as I'm sure counsel is, that the  
4 whole reason for adding DSI, which is the max  
5 rule, is itself subject to lawsuits heading  
6 back from the Supreme Court as we speak.

7 So what Powerton will do with  
8 regards to continuing to add DSI or not is also  
9 questionable in my mind depending on how the mass  
10 rules plays out after its recent challenge in  
11 Michigan with the Supreme Court that came down  
12 much less than a month ago.

13 MR. BONEBRAKE: I would like to  
14 turn back to Page 9 of your testimony, Mr. Sahu.

15 MR. SAHU: Yes.

16 MR. BONEBRAKE: Starting at Page 9,  
17 you address issues pertaining to the 30-day rolling  
18 average proposed by IEPA with respect to the  
19 Powerton plant; is this correct?

20 MR. SAHU: Yes.

21 MR. BONEBRAKE: And you are aware,  
22 are you not, Mr. Sahu, that IEPA has proposed a  
23 30-day rolling average emission in terms of the  
24 merit value as significantly more stringent than

1 the 6,000 pounds per hour that was initially  
2 identified by IEPA?

3 MR. SAHU: Are you referring to the  
4 3,452 pounds per hour?

5 MR. BONEBRAKE: That's correct.

6 MR. SAHU: Sure. Yeah. It is smaller  
7 than the 6,000 pounds an hour.

8 MR. BONEBRAKE: And that 3,452, in  
9 fact, reflects more than a 40 percent reduction  
10 from the 6,000 pounds per hour; does it not?

11 MR. SAHU: Something like that, yes.

12 MR. BONEBRAKE: So the actual rate  
13 proposed by IEPA is more stringent than the  
14 6,000-pound-per-hour rate initially proposed by  
15 IEPA with respect to this numeric value?

16 MR. SAHU: Well, that's a different --  
17 stringency is not just comparing the two numerical  
18 values. Stringency is a combination of the  
19 numerical value, the averaging time, the -- and  
20 all of those things.

21 So, you know, I will concede  
22 that numerically, the 30-day average number is  
23 lower than the hourly number, but as to whether  
24 they're stringent, that's an entirely different

1 question. I'm not prepared to say that it is or  
2 it is not.

3 MR. BONEBRAKE: Do you know, Mr. Sahu,  
4 if the emission rates proposed in Section 214.603  
5 of the rule before the Board apply to all hours of  
6 unit operation including startup, shutdown and  
7 malfunction?

8 MR. SAHU: I don't remember the  
9 language sitting here. If you could point me to  
10 the language, I can try to refresh my recollection,  
11 but I don't know that I saw statements that it  
12 includes startup, shutdown and malfunction. Maybe  
13 that is implied by references to some other portions  
14 of the rule, but I just -- sitting here now, I don't  
15 know that for a fact.

16 MR. BONEBRAKE: Do you know if US  
17 EPA's SO2 one-hour National Ambient Air Quality  
18 Standard applies to all periods of hours of  
19 operation from units with respect to model?

20 MR. SAHU: Of course, yeah. I mean,  
21 at the US EPA, I believe the general position is  
22 that emissions from all the -- or other emissions  
23 at all times are subject to the requirements. They  
24 may be of different types, but that includes

1 malfunction.

2 MR. BONEBRAKE: Is it true that  
3 emission units at power plants can have higher  
4 actual emissions during startup events as opposed  
5 to during normal operation?

6 MR. SAHU: It's possible. I mean,  
7 at startup, of course, the load is very low and  
8 yet at the same time, the controls are not typically  
9 working. So how the -- it depends on the definition  
10 of startup and how long startup extends before I  
11 can say one way or the other.

12 Right in the beginning, it's  
13 unlikely because the load is very low and the  
14 emissions are -- also because the load is likely  
15 to be over. It started -- extends -- as in some  
16 power plants, it extends for a significant period  
17 of time. Startup emissions can be very high.

18 In fact, that is one of the  
19 questions which I had for staff and it was not  
20 clear how the allowable emission rates that were  
21 derived is whether they actually include allowable  
22 emission due to startup or not. That is one of  
23 the major questions -- I brought flares as an  
24 issue, but another question that affects all of

1 the model rates as how do they account for --  
2 do they account for startup emission and  
3 malfunctioning emissions, which they're required  
4 to do, according to -- in fact, EPA's final rule  
5 that came out in May of this year.

6 MR. BONEBRAKE: And similarly,  
7 periods of pollution control malfunction can  
8 cause hourly emission rates to increase, is that  
9 correct, Mr. Sahu?

10 MR. SAHU: Yes. Most definitely  
11 pollution control issues, let me put it broadly,  
12 you know, can certainly cause -- if the unit  
13 continues to operate, let me put it this way. If  
14 the unit continues to operate while the pollution  
15 controls are impaired, that could definitely cause  
16 emissions to spike.

17 MR. BONEBRAKE: So periods of startup,  
18 shutdown and malfunction can cause variability of  
19 emission unit's hourly rate of SO2 emissions; can it  
20 not?

21 MR. SAHU: Theoretically, they could.  
22 It depends on the circumstances, what their  
23 variability will be.

24 MR. BONEBRAKE: Do you know what

1 type of fuel is used at the Powerton plant?

2 MR. SAHU: Do you mean what type of  
3 coal?

4 MR. BONEBRAKE: What type of coal?

5 MR. SAHU: I don't offhand. Using  
6 some mix of BRB or only BRB or non-bituminous or  
7 some kind of defined coals. I mean, they're -- I  
8 know different power plants in Illinois are using  
9 some combination at least four types of coal;  
10 non-bituminous, BRB, refined coals and maybe some  
11 blends.

12 MR. BONEBRAKE: And can variations  
13 in sulfur content in coals cause variability in SO2  
14 hourly emissions?

15 MR. SAHU: From the boiler, yes, of  
16 course. That would reflect the so-called mass  
17 balance that counsel was previously referring to,  
18 but they're usually modulated by any emission  
19 controls.

20 In other words, even if there  
21 is variability coming out of the boiler, if you  
22 have a control system, that dampens the variability.  
23 It attenuates the variability. That's the whole  
24 point of a control system.

1 MR. BONEBRAKE: I want to just talk  
2 a little bit about your testimony on Pages 14 and  
3 15.

4 MR. SAHU: Sure.

5 MR. BONEBRAKE: And specifically in  
6 this portion of your testimony, you are commenting  
7 on the Will County 4 emission unit, are you not,  
8 Mr. Sahu?

9 MR. SAHU: On Page 15, yes. Are  
10 you referring to someplace on Page 4 when I'm  
11 talking about Will County?

12 MR. BONEBRAKE: Sure. Subsection (c),  
13 you start that discussion.

14 MR. SAHU: No. That's on Page 15,  
15 at least the way it was printed out.

16 MR. BONEBRAKE: Okay. So with the  
17 pagination --

18 MR. SAHU: Okay. Yeah. Subsection  
19 (c), definitely, Subsection (c).

20 MR. BONEBRAKE: Thank you for the  
21 clarification.

22 MR. SAHU: No, no, problem.

23 MR. BONEBRAKE: Now, you mention, do  
24 you not, that the Will County 4 proposed emission

1 rate is, as you call it, a paper reduction rate?

2 MR. SAHU: Yes. What I found is  
3 Will County Unit 4 has a very high allowable  
4 emission rate currently in this permit. Extremely  
5 high. It has for the last five years been actually  
6 emitting about roughly a tenth, give or take, of  
7 the allowable rate.

8 I think the modeled rate is  
9 about three times -- two and a half to three times  
10 it's actual emissions in the last five years. And  
11 so, in other words, even at the modeled rate, Will  
12 County 4 doesn't really have to do any reduction  
13 of actual emissions. That's why I call it a paper  
14 reduction.

15 MR. BONEBRAKE: Now, there are  
16 thousands of sources addressed by the proposed  
17 rules, are there not, Mr. Sahu?

18 MR. SAHU: Yes.

19 MR. BONEBRAKE: And which of those  
20 sources, other than Will County 4, are required  
21 to actually reduce emissions to comply with those  
22 rules?

23 MR. SAHU: I couldn't tell you. I  
24 mean, that's the kind of stuff I wanted to look

1 at. I had questions for staff. Looking at the  
2 basis of their allowable emissions that went into  
3 modeling, just to be able to speak to precisely  
4 those kind of things; where there are paper  
5 reductions, where there are realistic actual  
6 reductions.

7 Will County 4, obviously, I  
8 picked because as staff -- as counsel for IEPA  
9 said, I mean, it's the single biggest on the  
10 modeling. You know, 150 plus micrograms per cubic  
11 meter modeling the highest receptor out of 190  
12 comes from Will County Unit 4.

13 MR. BONEBRAKE: Are you aware,  
14 Mr. Sahu, that there are thousands of sources that  
15 would be regulated by this proposed rule that have  
16 requirements on allowable emissions that will not  
17 drive actual emission reductions?

18 MR. SAHU: That might well be the  
19 case. I mean, I don't know if there are thousands  
20 or if there are -- I mean, overall we have several  
21 thousand sources that have been modeled. I've --  
22 I don't doubt it.

23 A lot of them could be paper  
24 reductions, but I think it was worth mentioning

1 that the single biggest, highest contributing  
2 source is really not being asked to do any  
3 actual reductions.

4 MR. BONEBRAKE: Is IEPA required  
5 to model allowable emissions as opposed to actual  
6 emissions, Mr. Sahu?

7 MR. SAHU: IEPA is required to model  
8 allowable emissions. How those allowable emissions  
9 get translated into permits and become enforceable,  
10 we were just talking about that.

11 MR. BONEBRAKE: On Page 15,  
12 Mr. Sahu --

13 MR. SAHU: Yes, sir.

14 MR. BONEBRAKE: -- you make the  
15 statement, "Containment is supposedly achieved on  
16 the backs of hundreds of smaller sources." Do you  
17 see that?

18 MR. SAHU: Yes.

19 MR. BONEBRAKE: Which hundreds of  
20 smaller sources are you referring to?

21 MR. SAHU: Well, the 1,788 sources  
22 that were modeled for Will County -- I mean, for  
23 the Lemont attainment area. It's a very interesting  
24 argument. In fact, it wasn't me, but I thought

1 I was asked by Illinois EPA a few minutes ago  
2 to add up all the other 19 sources in my Table B  
3 and asked to see if they all by themselves --  
4 the next 19 highest sources together were less  
5 than ten percent of Will County Unit 4.

6 Then, as you can imagine, as you  
7 go further down the rank order, there were literally  
8 hundreds of sources that have been modeled, many  
9 with emissions reductions. A lot were with emission  
10 reductions that are over 99 percent. If you look  
11 at the allowable reduc- -- emissions today for over  
12 500 sources, close to 600 sources, and look at what  
13 IEPA has modeled for Lemont in the future and just  
14 do a percent reduction, you have hundreds of sources  
15 that are being asked to reduce their allowable  
16 emissions -- here, add the numbers here on page --  
17 on Section (b). Over 99 percent reduction for 500  
18 sources.

19 MR. BONEBRAKE: In allowable  
20 emissions?

21 MR. SAHU: In allowable emissions  
22 and another additional 145 sources between 90 and  
23 99 percent. That's what I was saying is the state  
24 is requiring these dramatic reductions in allowable

1 emissions for many sources and Will County is not  
2 being required to reduce its actual emissions. It's  
3 just a factual statement, counsel.

4 MR. BONEBRAKE: So when you refer to  
5 achievement being placed on the backs of hundreds  
6 of smaller sources, were you including the  
7 requirements for Will County 3 and Joliet 6, 7 and  
8 8 under the proposed rule?

9 MR. SAHU: All of them.

10 MR. BONEBRAKE: All of them? So you  
11 view Will County 3 and Joliet 6, 7 and 8 as smaller  
12 sources?

13 MR. SAHU: Well, again, I don't think  
14 those emission sources were -- the other power plant  
15 sources were being required to do 99.97 percent  
16 reduction.

17 I mean, if you look at the table  
18 that I've given you on in the back Attachment A,  
19 Table C, you will see that the second to the last  
20 column is a percent reduction calculation between  
21 the current allowable and the model, which is the  
22 future allowable, if you think of it in that way.

23 And there are literally page  
24 after page of sources that are being asked to

1 reduce their allowable emissions by over 99 percent.  
2 I mean, I'm into, you know, the fifth or sixth page  
3 of this very fine print here before I can get even  
4 90 percent.

5                   Those are just facts, counsel.  
6 It kind of leads to a very interesting question,  
7 is this the best way to get to attainment or are  
8 there more optimal strategies to get to -- in other  
9 words, there are many ways to skin this cat and I'm  
10 not sure what is the overall optimization metric  
11 that the agency used to try to get at a path to  
12 demonstrate the attainment.

13                   The path they have chosen  
14 definitely shows that many, many sources are going  
15 to be required to have dramatically lower allowable  
16 emissions. That's all.

17                   MR. BONEBRAKE: Your own table, does  
18 it not, Mr. Sahu, indicates that reductions in  
19 emissions for the Joliet 6, 7 and 8 units and Will  
20 County 3 that are required by the proposed rule  
21 exceed 97 percent?

22                   MR. SAHU: Yeah. Sure. I mean, I  
23 conceded to that earlier. They are also included  
24 here, but there are many -- you know, Joliet is

1 at 97. You know, those sources -- I think some  
2 of them have converted to gas. A lot of these  
3 other sources -- the hospital, you know, the  
4 municipal landfill, the University of Chicago  
5 generators, I mean, what are they going to do?

6 I mean, they're not going to  
7 convert to gas. They are relying on something  
8 to achieve 99.5 percent reduction in allowable  
9 emissions. I have no idea. I mean, this is --  
10 this was intriguing right from the get-go to ever  
11 try to understand staff calculations of their model  
12 allowable emissions.

13 MR. BONEBRAKE: Mr. Sahu, do you  
14 understand that Will County 3 is required to cease  
15 combusting coal under the proposed rule?

16 MR. SAHU: Yes, I am.

17 MR. BONEBRAKE: And you understand  
18 that that is a methodology by which it would attain  
19 the proposed allowable rate for that unit?

20 MR. SAHU: Yeah. Will County 3 would.  
21 That's why I said the power plants, some of them can  
22 convert to gas, but a lot of the other sources, I  
23 don't know how they're going to comply to these  
24 dramatic reductions.

1 MR. BONEBRAKE: And Joliet 6, 7 and  
2 8, those units also were required under the proposed  
3 rule to choose combusting coal?

4 MR. SAHU: Sure. Yes, they are.

5 MR. BONEBRAKE: And are you aware  
6 of any other emission unit under proposed rule  
7 that is required to take physical action to  
8 constrain actual emissions?

9 MR. SAHU: Yes. There are probably  
10 other sources. I don't know who they are and who  
11 all they are, but I can't rule that out because I  
12 don't have the details.

13 MR. BONEBRAKE: My question, Mr. Sahu,  
14 and let me be again specific, and I would appreciate  
15 it if you answer the question --

16 MR. SAHU: Sure.

17 MR. BONEBRAKE: -- are you aware of  
18 any specific source other than Will County 3, Joliet  
19 6, Joliet 7 and Joliet 8 that is required to take  
20 physical action to reduce actual emissions to comply  
21 with the proposed rules?

22 MR. SAHU: I have to think about that.  
23 I am aware of other sources who are -- as part of  
24 the modeling. I couldn't say one way or the other.

1 I will tell you this, however, since I am not able  
2 to give you a direct answer that I would have been  
3 able to answer if I had the kind of information I  
4 was looking for from staff, which is how these  
5 future modeled rates were calculated.

6 MR. BONEBRAKE: So the direct answer  
7 is no, is it not, Mr. Sahu?

8 MR. SAHU: I cannot say that for  
9 sure.

10 MR. BONEBRAKE: My question is what  
11 you are not aware of. What you are telling me is  
12 you are not aware of another source, is that  
13 correct, Mr. Sahu?

14 MR. SAHU: Are we talking about  
15 Lemont?

16 MR. BONEBRAKE: Yes.

17 MR. SAHU: Yeah. I couldn't tell  
18 you with what I'm aware of given the information  
19 I've been provided.

20 MR. BONEBRAKE: And is it true that  
21 Joliet 6, 7 and 8 and the Will County 3 units have  
22 been modeled by IEPA as effecting attainment in the  
23 Lemont area?

24 MR. SAHU: Do you mean do they

1 continue to give, is that what you're asking?

2 MR. BONEBRAKE: Correct.

3 MR. SAHU: Sure. They have been.  
4 They have been included in the modeling.

5 MR. BONEBRAKE: And so is it correct  
6 that the actual emission reductions that would  
7 occur as a result of the cessation of coal  
8 combustion from the Will County 3 and Joliet 6, 7  
9 and 8 assists the state's effort to attain the  
10 Lemont area?

11 MR. SAHU: Well, they might, but I --  
12 you know, of course, they do. Their emissions are  
13 going to be reduced if they switch from coal to  
14 gas and they will lower their emissions of SO2  
15 as a result and they will help, but they are not  
16 at the -- in the final analysis, Will County 4  
17 still stands out as a very large contributor to  
18 the ongoing SO2 concentrations that are to be  
19 expected in this area. That is also equally a fact  
20 of the modeling that you have seen.

21 MR. BONEBRAKE: Is it true that  
22 US EPA has stated that SO2 emissions from power  
23 plants combusting natural gas by one percent or less  
24 than SO2 emissions from the coal-fired power units?

1 MR. SAHU: It is, but that speaks  
2 more to the very large emissions from coal-fired  
3 units as opposed to the very dramatically small  
4 emissions from gas-fired units.

5 MR. BONEBRAKE: So would you agree  
6 then, Mr. Sahu, that the conversion of a coal  
7 powered emission unit to gas would result in SO2  
8 emission reductions of 99 percent or greater?

9 MR. SAHU: I don't know that. That  
10 gets into the calculations. Whether it's 97  
11 or 98 or 99, I couldn't tell you.

12 MR. BONEBRAKE: Do coal-fired emission  
13 units burning natural gas have lower particulate  
14 matter emissions than coal-fired plants burning  
15 coal?

16 MR. SAHU: Can I ask you a  
17 clarification on the question? You said coal-fired  
18 units burning gas.

19 MR. BONEBRAKE: I'm sorry.

20 MR. SAHU: Did you mean -- could you  
21 clarify what that means?

22 MR. BONEBRAKE: Thank you. I  
23 misspoke. Do power plants burning natural gas  
24 have lower particulate matter emissions than power

1 plants burning coal?

2 MR. SAHU: I am aware of coal fire  
3 powered plants with extremely good particulate  
4 controls that have emissions comparable to gas-fired  
5 units. So it has to do with how poorly coal-fired  
6 power plants have or run their particular controls.

7 If it's a well run, well designed,  
8 well-maintained particular control device, they do  
9 a great job, even the coal-fired power plants on  
10 ppm emissions as opposed to gas-fired ppm where  
11 there are -- they're understandably small. They're  
12 not zero. They're small.

13 But if you compare a typical  
14 one of each, yes, a gas-fired unit will have far  
15 fewer, but that speaks in large part to how poorly  
16 coal-fired units historically have designed, run  
17 and maintained their particular control systems.

18 MR. BONEBRAKE: And do gas-fired  
19 emission units have lower carbon dioxide emissions  
20 than coal-fired power plants?

21 MR. SAHU: Roughly half, although the  
22 same heat release.

23 MR. BONEBRAKE: So the conversion of  
24 coal-fired emission units from coal to gas has

1 the benefit of reducing SO2 emissions, particulate  
2 matter emissions and carbon dioxide emissions,  
3 is that then correct, Mr. Sahu?

4 MR. SAHU: Yes. That would be a  
5 consequence of converting to gas.

6 MR. BONEBRAKE: We talked about the  
7 fact that Midwest Generation, with respect to Will  
8 County 3 and Joliet 6, 7 and 8 will actually have  
9 to take efforts to comply with the requirement to  
10 cease combusting coal.

11 One of my questions for you,  
12 Mr. Sahu, is with respect to the conversion of  
13 a unit from coal to gas, do you have a sense of  
14 the cost associated with that conversion?

15 MR. SAHU: Well, I just recently  
16 looked at two or three such conversions in a  
17 different state and they are very unit specific.  
18 There is some cost to changing the internals  
19 because of temperature profile changes and you  
20 want to do that, but it is a dramatically reduced  
21 operating cost because you're not operating the  
22 coal yard, you're not operating several control  
23 systems.

24 So when you look at cost,

1 there is some capital cost that has to be  
2 incurred obviously to make the change, but there  
3 are significant reductions in labor, staffing  
4 and in ongoing operating costs because a gas  
5 fired power plant doesn't require much of the  
6 supporting infrastructure, you know, including  
7 getting the coal, handling the coal, the whole  
8 energy penalties associated with the milling, the  
9 coal and conveying the coal and the back end, the  
10 P.M. controls and even other controls that might  
11 be present.

12 So on a levelized cost, on a  
13 cost looking over a reasonable time period of life,  
14 it depends on the assumptions you make. I can't  
15 say that the costs are comparable. It depends on  
16 the facts in each particular case.

17 MR. BONEBRAKE: Let's confine  
18 ourselves to capital costs.

19 MR. SAHU: Well, that's really half  
20 the cost. I mean, you can't confine yourself to  
21 capital costs. It's like saying, you know, that's  
22 consider the cost that is going to be more, but  
23 let's forget about the costs where it's going to  
24 be less. That's funny accounting.

1 MR. BONEBRAKE: My question, though,  
2 Mr. Sahu, is regarding capital costs.

3 MR. SAHU: Sure.

4 MR. BONEBRAKE: So I would appreciate  
5 it if you would confine yourself to that area.

6 MR. SAHU: I'll listen to the question  
7 and answer carefully, but I think for the Board's  
8 benefit, I think cost is broader than capital cost.

9 MR. BONEBRAKE: Would you agree that  
10 the costs of -- physical costs of converting a unit  
11 from coal to gas, capital costs, would be at least  
12 hundreds of thousands of dollars per unit?

13 MR. SAHU: It could, sure. That's  
14 possible.

15 MR. BONEBRAKE: It could be millions  
16 of dollars per unit?

17 MR. SAHU: It depends on what is  
18 being changed. That's why I'm saying the facts  
19 are important. If the burners are in relatively  
20 good shape and they burn gas, it may not be  
21 millions of dollars. If there's a gas supply  
22 already, for example, a pipeline, then it may  
23 not be millions of dollars.

24 MR. BONEBRAKE: Do you know if there's

1 a gas line that feeds the Joliet station, Mr. Sahu?

2 MR. SAHU: Not offhand. I have not  
3 inquired about that.

4 MR. BONEBRAKE: Well, let's assume  
5 that there is not, you understand? So the capital  
6 costs associated with bringing in a pipeline --

7 MR. SAHU: Sure

8 MR. BONEBRAKE: -- to the Joliet  
9 station --

10 MR. SAHU: Sure.

11 MR. BONEBRAKE: -- do you have a sense  
12 what those costs would be?

13 MR. SAHU: No. That could depend  
14 purely on how far it's coming from the closest  
15 intertie that will give them the gas volumes they  
16 need.

17 MR. BONEBRAKE: And that could  
18 entail an acquisition of property, construction  
19 of the pipeline and so on, Mr. Sahu, correct?

20 MR. SAHU: Well, look at all the  
21 benefits you're getting for lower particulate  
22 missions and lower greenhouse gas emissions that  
23 you just pointed me to. So yes, there are costs  
24 obviously, but I'm saying capital costs are part

1 of the equation. Operating costs are part of the  
2 equation. Then there are the benefits. So you  
3 have to look at everything.

4 MR. BONEBRAKE: Well, we agree that  
5 there are substantial benefits from the cessation  
6 of coal combustion at the four units with respect  
7 to emissions, Mr. Sahu.

8 Are you're aware of any other  
9 source that's going to be required to incur -- I  
10 should say source or source operator that's going  
11 to be required to incur at least hundreds of  
12 thousands of dollars, if not millions of dollars,  
13 to comply with the proposed rule?

14 MR. SAHU: Yes. I'm aware of other  
15 sources that will have to comply, but I can't -- I  
16 can't speak to the details.

17 MR. BONEBRAKE: That's not my  
18 question. My question was whether you're aware of  
19 any company or other operator other than Midwest  
20 Generation that's going to be required to spend  
21 hundreds of thousands of dollars, if not millions  
22 of dollars, to comply with the proposed rules?

23 MR. SAHU: My answer is yes.

24 MR. BONEBRAKE: Which company?

1 MR. SAHU: I cannot tell you. I  
2 have confidentiality agreements. So I cannot  
3 tell you that. But I'm aware and I'm truthfully  
4 answering yes, that Midwest Generation and the  
5 power companies are not the only ones that are  
6 going to be spending real money, capital costs,  
7 to comply with these rules.

8 MR. BONEBRAKE: If you cannot identify  
9 for me the name of the company or operator, can you  
10 identify how many of them are there?

11 MR. SAHU: I'm aware of just the one.

12 MR. BONEBRAKE: Just one?

13 MR. SAHU: Yes.

14 MR. BONEBRAKE: Out of the 1,500 or  
15 so sources at issue in this room, Mr. Sahu?

16 MR. SAHU: Many of whom -- yes,  
17 because I have not queried the 1,500. I am simply  
18 pointing out that many of the 1,500 are going to be  
19 required to take huge reductions in their allowable  
20 emissions. I don't know as a result of that if  
21 they are to do something by way of spending capital  
22 costs and operating costs. I just don't know.

23 MR. BONEBRAKE: And you just don't  
24 know whether allowable emissions reductions are

1 going to require any reduction in actual emissions;  
2 is that correct?

3 MR. SAHU: I -- I have no idea.  
4 I've been asking for the calculations supporting  
5 Column 4 in this table.

6 MR. BONEBRAKE: If the -- strike that.  
7 Those are all the questions that  
8 I have for Mr. Sahu at this time.

9 HEARING OFFICER ROBERTSON: Thank  
10 you.

11 Before we continue, we are  
12 going to take a quick break. It is now 12:15.  
13 So just a quick ten-minute break. So we will meet  
14 back at 12:25 to continue.

15 There are a lot of members of  
16 the public. If anyone does have any time issues  
17 in terms of having to get to work or anything  
18 wanted to offer public comment, if you could just  
19 find me during the break, we can discuss that.

20 So thank you. Let's go off the  
21 record.

22

23

24

1 (Whereupon, after a short  
2 break was had, the following  
3 proceedings were held  
4 accordingly.)

5 HEARING OFFICER ROBERTSON: Okay.  
6 We are going back on the record now. Thank  
7 you. It's 12:27. We have set up a couple of  
8 fans. I know it's quite warm in here. So anyone  
9 sitting near the fans, if it becomes an issue,  
10 just let us know. Thank you.

11 So we did have a few people  
12 that have to leave shortly that have requested  
13 to offer public comments. So we are going to  
14 switch gears for a moment to let those poor  
15 people speak. I do ask just if you can limit  
16 your comment to around two minutes and again  
17 just state your name and spell it. If you are  
18 speaking on behalf of any organization, just  
19 let us know that too. Please use the podium in  
20 the middle of the room. There's a microphone  
21 there.

22 So we will begin with Jo Lakota.  
23 Thank you very much.

24 MS. LAKOTA: Thank you very much.

1 I'm one of the luckiest people in this room because  
2 I know --

3 HEARING OFFICER ROBERTSON: I'm sorry.  
4 Could you spell your name for the court reporter?

5 MS. LAKOTA: Jo, J-O, last name  
6 L-A-K-O-T-A, of the Great Lakota Nation, if you  
7 need to know.

8 I'm very fortunate. As a child,  
9 I grew up down on the south end of Peoria and we've  
10 never had a car or anything, but we would walk this  
11 whole area from Peoria down by where the plant is  
12 and over here into Pekin to visit friends of ours  
13 and, I mean, at least weekly.

14 I know this place so intimately,  
15 the rivers and the Kickapoo Creek. We used to  
16 fish Kickapoo Creek, but we literally ate the  
17 food that that strip of land provided, not just  
18 the fish, but the plants and berries and everything.  
19 Everything was there; asparagus and mushrooms. So  
20 it was -- it really was a heaven. I remember  
21 fairyrooms, you know, the mushrooms in the spring.

22 This is very precious to me.  
23 Plus, I taught here for many years. I actually  
24 taught in Pekin for nine years at the high school

1 and loved my students. Now, here they are with  
2 their children living here. Although I know I'm  
3 not going to get college credit for listening to  
4 all of this high intellectual discussion, what I  
5 did hear was 6,000 pounds per hour and I see that  
6 falling on those children and on those trees and  
7 on that water.

8 I think it's all very simple.  
9 I think everybody here is intelligent. I think  
10 everybody in here wants the same thing, the best  
11 for ourselves and our children. It all comes  
12 down to -- it all comes down to love. You know,  
13 some great minded 14th century recently referred  
14 to us as the huggers in the newspaper. I thought  
15 that was really cute, but the fact is we all want  
16 the same thing.

17 And so it costs some money.  
18 Well, guess what? You know, I pay a sewage bill.  
19 You know, I can't have an outhouse. I can't throw  
20 my garbage in my yard, I have to pay a bill to have  
21 that picked up. That's the law. I like living  
22 under the law because I live in a cleaner  
23 environment.

24 I appreciate everybody's effort,

1 but I'm just putting my plug in for all the  
2 children, animals, my students and this beautiful,  
3 beautiful part of the world right here we have.  
4 It's a little bit of heaven. Thank you.

5 HEARING OFFICER ROBERTSON: Thank  
6 you.

7 Next we have Joyce Harant and  
8 then followed by Gary Hall.

9 MS. HARANT: Thank you very much  
10 for the consideration to speak sooner.

11 My name is Joyce Harant,  
12 J-O-Y-C-E, H-A-R-A-N-T, and I am a resident of  
13 Peoria, but I am also, while I'm not speaking  
14 for them, I'm a member of the Central Illinois  
15 Healthy Community Alliance and also a member of  
16 the Peoria City County Board of Health.

17 Before I speak, I would first  
18 like to personally -- since we don't get an  
19 opportunity very often to see the members of the  
20 Pollution Control Board -- and I want to thank  
21 Dr. Glosser for her vote and support of the  
22 variance for the Dynegy plant -- or to not support  
23 the Dynegy variance. So I just wanted to thank you  
24 for that and I hope that that spirit will continue

1 in this rulemaking and that I'm so pleased to see  
2 the other members of the Board here that are here  
3 because my focus has been on public health.

4 I have a master's in community  
5 health. I have had heard nothing -- and I guess  
6 I wouldn't expect to hear anything in this kind  
7 of testimony about the cost to the public's health.

8 I just urge you to focus on  
9 keeping our air, getting our air clean so we can  
10 reduce the health care costs, the lost work, the  
11 pain and suffering of people who have to go through  
12 diseases, respiratory and heart disease. I think  
13 we need to give much greater weight to the health  
14 care costs.

15 I hope that the rules are not  
16 just sort of the same 'ole we're going to maximize  
17 profits for the corporations and minimize the  
18 health care impacts on the public. We've had this  
19 for too long and it's just too much. It has to  
20 stop.

21 I think the controls for Dynegey  
22 at the Edwards plant need to be stricter. They  
23 need to be required. The averaging for the Powerton  
24 plant needs to be shorter durations, the hourly,

1 so that we can have substantial reductions in the  
2 SO2 emissions.

3 So again, I just ask that when  
4 you are looking at all of the data that is  
5 presented in terms of emissions and all of that,  
6 put a face on it. Put a face of somebody who  
7 is having to use a respirator. Put a face on  
8 somebody who has heart disease. Let's get the  
9 lowest possible emissions that we have so we can  
10 have healthy people. Thank you.

11 HEARING OFFICER ROBERTSON: Thank  
12 you.

13 Next, we have Gary Hall followed  
14 by Harry Jones.

15 MR. HALL: Gary Hall, G-A-R-Y,  
16 H-A-L-L. We live on the earth, blue marble. It's  
17 a beautiful place to live. If you look -- if you  
18 look at the pictures from outer space.

19 The problem is this is the only  
20 home we've got. If we -- if we destroy this home,  
21 where are we going to go? There's no place to  
22 go. This generation better do something about the  
23 pollution that's going on in the world or we are  
24 not going to have anyplace left to live on for our

1 kids.

2                   The Pollution Control Board  
3 should require a stronger emission limit at the  
4 Dynegy Edwards plant -- coal plant along with  
5 an expected date for the installation of sulfur  
6 dioxide pollution controls. The agreement  
7 established by Dynegy and the state of Illinois  
8 lacks detail regarding the plan and timeline for  
9 installing the pollution controls.

10                   In the update, in 2014, it was  
11 reported by the Clean Air Task Force attributes 29  
12 deaths, 45 heart attacks and 490, 490 asthma  
13 attacks to the pollution from the Dynegy Edwards  
14 plant. Dynegy took this plant over from Ameren.  
15 Ameren was a bad neighbor. Dynegy is a -- they're  
16 like a slum lord. They bought into this idea  
17 that they can do whatever they want and disregard  
18 the rules and then if anything happens, they'll  
19 just shut down and move out. Shame on them. Shame  
20 on them. That's all. Thank you.

21                   HEARING OFFICER ROBERTSON: Thank  
22 you.

23                   Next, we have -- is this Kerry  
24 or Larry Jones. I'm sorry about that.

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1 MR. JONES: Yes, Larry Jones,  
2 L-A-R-R-Y, J-O-N-E-S. Thanks for hearing my  
3 concerns and perhaps applying my contribution.

4 I'm a resident of Mackinaw  
5 in Tazwell County. I'm a board member of the  
6 Peoria Chapter of ACLU, coordinator of Greater  
7 Peoria of Progressive Democrats of America and  
8 I'm an activist with the Illinois People's  
9 Action and Central Illinois Healthy Community  
10 Alliance and a member of the NAACP.

11 I live in the outer reaches of  
12 the plume of pollution that spews forth from the  
13 Powerton and Edwards plants. I just turned 68  
14 years old so on paper at least, I belong to a  
15 demographic that's more vulnerable to their  
16 emissions.

17 I request that you reject the  
18 proposed non-attainment plan until the draft rule  
19 is strengthened. The 2014 Toll From Coal Report  
20 informs us from pollution from the Powerton and  
21 Edwards plants combined can account for 79 deaths  
22 as well as over 120 heart attacks and over 1,300  
23 asthma attacks each year.

24 Whatever plan is adopted for this

1 area, it must seek to reduce those numbers. Why  
2 should we think that the 30-day standard would  
3 protect public health better than the one-hour  
4 standard? The 30-day standard will allow huge  
5 spikes in emissions of sulfur dioxide and other  
6 dangerous pollutants. Well, I guess that's okay  
7 if on another day, emissions are reduced. Never  
8 mind. The damage has already been done to people's  
9 health.

10 As a citizen, I expect the  
11 Illinois Pollution Board to do the right thing and  
12 put the health of actual living, breathing human  
13 persons before the health of corporate persons and  
14 shareholder's pocketbooks. Thank you.

15 HEARING OFFICER ROBERTSON: Thank  
16 you.

17 Those are all the names that I  
18 have for now. I would like to thank the four of  
19 you for coming out and giving comments today in  
20 the middle of the day. We appreciate it. There  
21 will be additional time for additional public  
22 comments later for anyone who signed up or didn't  
23 and has not spoken yet.

24 So at this time, we will continue

1 with the testimony and questions and of Mr. Sahu.

2 I believe IERG had some questions. Thank you.

3 MS. ALLGIRE: Yes, we do. I'm Abby  
4 Allgire. I'm legal counsel with the Illinois  
5 Environmental Regulatory Group also known as  
6 IERG.

7 Hello, Mr. Sahu. I just  
8 have one question for you. Are you aware of any  
9 specific examples in Illinois where ultra-low  
10 sulfur diesel fuel offered for sale exceeded the  
11 15 ppm limit?

12 MR. SAHU: You said 15 ppm?

13 MS. ALLGIRE: Yes.

14 MR. SAHU: No, I'm not.

15 MS. ALLGIRE: Thank you. That's all  
16 I have.

17 HEARING OFFICER ROBERTSON: Okay.  
18 Ms. Bugel, do you have questions at this stage?

19 MS. BUGEL: Yes. Thank you,  
20 Hearing Officer. I do have probably about ten  
21 follow-up questions.

22 Mr. Sahu, do you have clients  
23 that are industrial?

24 MR. SAHU: Yes. I have clients

1 that are both municipalities, government clients,  
2 EPA itself is a client and several states and  
3 several industrial clients.

4 MS. BUGEL: And can you approximate  
5 how many industrial clients you have?

6 MR. SAHU: Well, again it fluctuates  
7 by time, but over the years, I've done work with a  
8 variety of industrial clients such as refineries,  
9 airspace companies, steel mills, chemical  
10 distribution companies and there are small --  
11 smaller companies as well. So right now, on an  
12 active basis, probably about a half a dozen.

13 MS. BUGEL: And in your experience,  
14 I'm assuming you have encountered other consultants  
15 that act as expert witnesses in hearings and in  
16 trials?

17 MR. SAHU: Yes.

18 MS. BUGEL: And do you have an  
19 understanding of whether they are routinely paid  
20 to appear and provide testimony?

21 MR. SAHU: Yes. My understanding is  
22 that's a common form of their compensation, their  
23 time.

24 MS. BUGEL: And do you -- have you

1 had an understanding of other experts' hourly  
2 rates?

3 MR. SAHU: Yes. There are a wide  
4 range. I have seen expert rates that are  
5 significantly greater than my rates especially  
6 experts that work for power plants.

7 MS. BUGEL: And why is your rate  
8 significantly lower than other experts?

9 MR. SAHU: Well, I am by myself.  
10 So I don't have a huge amount of overhead and  
11 I think it's a fair compensation given my peers  
12 and given my costs and all the other things  
13 that we do with our money like paying taxes and  
14 generally living.

15 MS. BUGEL: And turning to the  
16 expert --

17 MR. SAHU: I might say that I did  
18 spend many years getting a higher education. I  
19 have my master's and Ph.D. So I think overall  
20 it's a fair compensation for the experience that  
21 I bring.

22 MS. BUGEL: And turning now to  
23 the amended testimony of David Kolaz on behalf  
24 of IERG, do you have that in front of you?

1 MR. SAHU: I do.

2 MS. BUGEL: And can you flip to  
3 Attachment A, please.

4 MR. SAHU: I have it.

5 MS. BUGEL: And earlier, your  
6 attention was directed towards the city of Lemont  
7 and the monitoring data for that city. I would  
8 like to direct your attention to the city of Pekin.  
9 Do you see that --

10 MR. SAHU: Yes.

11 MS. BUGEL: -- in the attachment?

12 MR. SAHU: Yes.

13 MS. BUGEL: And can you generally  
14 explain the trend for the monitoring data for Pekin  
15 over time?

16 MR. SAHU: The Pekin data doesn't  
17 seem to show a very strong trend. There was a  
18 high value in 2012.

19 By the way, all the numbers in  
20 Pekin recently are, you know, two and three times  
21 the standards. So there has been no real reduction  
22 in Pekin from the actual monitored values.

23 One of the important things why  
24 this is key in the analysis IEPA has done, I don't

1 really see a reasonable explanation for why actual  
2 monitor value of this location should be that much  
3 higher than the standard. So the culpability  
4 analysis for explaining these high values, they  
5 continue without any significant reduction in my  
6 mind.

7 MS. BUGEL: And can you just tell  
8 us what was the monitored value for the year of  
9 2014?

10 MR. SAHU: At Pekin, it was 190  
11 parts per billion. The standard is 75 at  
12 least numerically. The standard is a statical  
13 one, but the numerical value is 75 versus 190.

14 MS. BUGEL: We can -- we can set  
15 that aside.

16 So turning to the actual rule  
17 itself, do you know of any source where the  
18 reductions model -- I'm sorry -- do you know of  
19 any source where reductions in emissions were  
20 modeled by the IEPA, but that source is not  
21 subject to either a limit in 603 or a low-sulfur  
22 fuel requirement per the rule?

23 MR. SAHU: Yes. There appear to  
24 be such sources. If I understand the rule, the

1 low-sulfur limit, which was discussed extensively  
2 has to do with sources that burn low-sulfur diesel,  
3 which is a fuel that lots of sources can use and  
4 burn, but as I pointed out even in earlier  
5 testimony, I mean, there are sources like flares  
6 and so on where you wouldn't be turning low-sulfur  
7 diesel, per se, and they're modeled here as well.

8 I mean, it's not clear now  
9 their reductions -- how even their allowables,  
10 not just reductions, how their allowables are  
11 calculated.

12 MS. BUGEL: And you've testified  
13 as to having a concern that sources -- a concern  
14 about sources being able to achieve the modeled  
15 rate or whether they are -- they will be able to  
16 be verified at the modeled rate.

17 Can you identify the  
18 characteristics that you know of that affect  
19 whether a source will be able to achieve the  
20 modeled rate?

21 MR. SAHU: Well, we got into that  
22 a little bit earlier with counsel from IEPA. The  
23 SO2 emissions that come out of fuel burning, let's  
24 take the subset of sources that are combustion due

1 to even low sulfur diesel, forget the flares, forget  
2 other sources, even there, what happens is you burn  
3 the fuel, the sulfur concentration in the fuel, 15  
4 parts per million, gets converted to a chemical  
5 reaction to SO<sub>2</sub>, but the rate that is a mass  
6 emission rate grams per second.

7           The concentration by itself is  
8 insufficient to assure that the mass rate will be  
9 achieved because you need to know something about  
10 the unit. You need to know the size of the unit,  
11 the heat input or the power that's being generated.  
12 So that is a calculation. That's an assumption  
13 there.

14           In other words if I take any  
15 particular source here that is a fuel burner, I  
16 need to know the type of fuel, which less conceived  
17 is the low-sulfur diesel that we burned, but then  
18 we need to know what size the source is. Together,  
19 in this instance, they will tell us the grams per  
20 second.

21           Now, the calculation might be  
22 different for other types of sources, but as a  
23 simple example, that is what we need to know. So  
24 all I'm saying is we need to at least understand

1 what went into the model grams per second and it  
2 is not sufficient to simply say, well, we have an  
3 assurance that the sulfur content of concentration  
4 in the fuel is not going to exceed the 15 part  
5 per million. That is a part of the calculation  
6 and not all of it.

7 MS. BUGEL: So is it your  
8 understanding that if -- even if the sulfur  
9 content of fuels -- of the fuel stays below 15  
10 parts per million, a source could exceed the  
11 rate it was modeled at in IEPA's modeling?

12 MR. SAHU: Yes, it could. I mean,  
13 if somebody takes an engine and substitutes for  
14 a bigger engine, then they could. I mean, lots  
15 of things can happened as to why model emission  
16 rate might be different if they keep a low-sulfur  
17 concentration the same and usually you guard  
18 against that through permit or through some other  
19 verifiable means.

20 MS. BUGEL: And in your testimony,  
21 you also question whether a low-sulfur fuel limit  
22 of 15 parts per million alone could achieve a 99  
23 percent plus reduction in emissions.

24 Can you explain why it is your

1 understanding that low-sulfur fuel limits alone  
2 cannot achieve the 99 percent plus reductions  
3 modeled by EPA?

4 MR. SAHU: Yeah. That's -- the  
5 thought process is very simple. If you are  
6 getting all of your sulfur dioxide emissions  
7 from a fuel substitution. You are getting due  
8 to -- having now burned or will burn after 2017  
9 15 parts per million diesel sulfur, then to get  
10 the 99 percent allowable would imply that current  
11 allowable emissions are based on burning diesel  
12 with 1,500 parts per million diesel and I don't  
13 know for a fact that current diesel that people  
14 are burning even on allowable terms -- I mean,  
15 that type of diesel is generally not available,  
16 certainly in many cases, we have 99.9 percent.

17 Now, you are talking about  
18 15,000 ppm diesel. So the math of how you get  
19 to explaining these allowable percent reductions  
20 didn't add up in my mind simply knowing that the  
21 fuel sulfur content is the one that is going to  
22 achieve these reductions. There must be an  
23 explanation. I just haven't seen it.

24 MS. BUGEL: And in the last part of

1 your answer, you said 15,000 parts per -- ppm  
2 diesel. Did you mean 1,500?

3 MR. SAHU: No. I said in some  
4 sources, it was 99.9 percent reduction and it  
5 could be 15,000 current allowable.

6 MS. BUGEL: Thank you.

7 MR. SAHU: Yes.

8 MS. BUGEL: I understand.

9 And you also were questioned  
10 earlier about whether or not you were recommending  
11 CEMS for thousands of sources. And for the record,  
12 CEMS is C-E-M-S. It stands for continuous emission  
13 monitoring systems. You indicated that you are not  
14 recommending CEMS.

15 MR. SAHU: Right.

16 MS. BUGEL: Are there other means  
17 that can be used to assure that the modeled rate  
18 will also be achieved for individual sources?

19 MR. SAHU: Sure. If you're not  
20 going to monitor the actual emissions using the  
21 C-E-M-S, or CEMS, you can -- for the assumptions  
22 that you're making in your allowable calculations  
23 into some sort of enforceable permit such as the  
24 size of the equipment, along with the fuel sulfur

1 content, it becomes difficult for some sources.

2 I'll tell you, you know, flares  
3 I think are a good example of that. Flares, sulfur  
4 dioxide emissions, we've learned a lot about  
5 them in this country in the last 30 years and  
6 more importantly, in the last ten years. They  
7 can be dramatically high.

8 It is not uncommon for a  
9 single refinery flare or flaring event to  
10 contribute 500,000, 600,000, a million pounds  
11 of sulfur in an event, which might last hours  
12 to days depending on what's going on with the  
13 source.

14 And so you have to tailor  
15 what you're doing to the characteristics of  
16 the source and establish the appropriate tools  
17 whether it's a calculation that is enforceable,  
18 whether it's CEMS in some instances, whether  
19 it's periodic staff testing under representative  
20 conditions. There are several tools and it's not  
21 a one size fits all.

22 MS. BUGEL: And earlier when  
23 Mr. Bonebrake was questioning, he questioned you  
24 about variation in sulfur content in coal and

1 whether or not you have an understanding whether  
2 that leads to variation in sulfur emissions and  
3 you, in your answer, indicated that that is what  
4 a source has emissions controls for.

5 Can you explain what you meant  
6 by that?

7 MR. SAHU: Well, you have to  
8 separate where emissions are generated from where  
9 they are emitted. So you have generation happening,  
10 let's say, in the example that Mr. Bonebrake and  
11 I were discussing in a boiler, a power boiler,  
12 where you're burning coal or some other fuel and  
13 you're creating the sulfur dioxide.

14 Then it is -- if you have no  
15 controls, then you are going to emit the same  
16 thing. So any variability in the emission  
17 generation translate to variability in the emissions  
18 to the atmosphere, but if you have controls like  
19 a scrubber or dry sorbent ejection or something  
20 else, it can act as a way to modulate to dampen  
21 these spikes.

22 That's what a well designed  
23 control system essentially can neutralize, if you  
24 will, some of the variability. So it's not just

1 an issue of averaging time. It's an issue of  
2 controlling inherently doing some attenuation or  
3 dampening of the variability. That is the point  
4 I was trying to make.

5 MS. BUGEL: And have you ever  
6 observed DSI in use?

7 MR. SAHU: Yes. In many power plants  
8 in the last several years have been doing testing  
9 for DSI, anticipating that they're going to be using  
10 it to comply with another EPA rule that is in effect  
11 right now subject to some court decisions and I --  
12 at least in one case, I was invited to witness DSI  
13 testing over a period of several days.

14 They were doing trials.  
15 Mr. Bonebrake mentioned Trona. This power company  
16 was using Trona. They were using other reagents  
17 just to see what would work for them and how to  
18 design the system. So they were doing an extensive  
19 trial. I was asked to witness this -- portions of  
20 that trial.

21 MS. BUGEL: And did you witness any  
22 operating data in that trial?

23 MR. SAHU: Yes. We were in the  
24 control room looking at how they were injecting

1 DSI and reagents, different rates, different  
2 locations, just sort of an exploratory study of  
3 the efficacy of the system, of that control.

4 MS. BUGEL: And did that experience  
5 inform your understanding of your testimony that  
6 DSI is the responsive?

7 MR. SAHU: Yes. I don't think  
8 there was any question. I didn't get questions  
9 from either Mr. Bonebrake or counsel from IEPA on  
10 that issue.

11 Yes, the DSI system is -- it  
12 senses the sulfur dioxide in the incoming gasses  
13 and it knows appropriately how much of the reagent  
14 to inject and all of that happens very rapidly.  
15 In fact, the overall reaction in the duct happens  
16 within about a second or so before you hit the  
17 particular control device. It's a very quick  
18 acting control.

19 In fact, that alone distinguishes  
20 it from the other type of controls Mr. Bonebrake  
21 and I were talking about, dry scrubbers, and they  
22 can be a little more longer acting, but DSIs can  
23 be very quick acting if it's designed properly.

24 MS. BUGEL: And you were also

1 questioned about US EPA approval of the 30-day  
2 average here for Powerton.

3 Does the fact that the US EPA  
4 approved of the 30-day average affect your view  
5 of the need for supplemental limits?

6 MR. SAHU: No, it does. I mean,  
7 again, as I said in the beginning, I'm looking  
8 at it from a technical standpoint. How robust  
9 is this fastforward that you have some assurance  
10 you're not get into non-attainment.

11 In US EPA, in its guidance  
12 at least, it speaks to the need of supplemental  
13 limits if they're going to help in that  
14 demonstration. So you look at it from a  
15 case-specific situation. You look at the need,  
16 whether the 30-day limit is going to give you  
17 enough robustness.

18 I mean Counsel Bonebrake himself  
19 said, you know, we have periods of startup or  
20 shutdown or malfunction where we have spikes. There  
21 are emission rates that are going to exceed. We  
22 have control systems that are not working. There  
23 are any number of instances, even in sources that  
24 have controls where you see the variability and

1 how do you then properly get handle on 30-day rate  
2 if you don't have some idea and this underlying  
3 variability and the spikes and how frequently that  
4 might occur.

5 It's a common sense -- we have  
6 to do that evaluation and I think simply saying,  
7 well, we did what EPA required us to and we got  
8 it past them. Ultimately, it's the Board and  
9 the IEPA have to safeguard the public health of  
10 the citizens of Illinois and I'm sure EPA approval  
11 is important, but it's more defensive to have a  
12 good technical underlying basis for the rule.  
13 That's what I'm saying.

14 MS. BUGEL: And just one last  
15 question. Earlier, you were questioned about  
16 your inclusion of Indiana sources on a table in  
17 your testimony and can you explain why it's your  
18 view that there should be a limit on the Indiana  
19 sources?

20 MR. SAHU: Well, it's not picking  
21 on Indiana by any means. We have many situations  
22 in this country where emissions from one state  
23 or sources from one state affect emissions in  
24 another state.

1                   Those type of situations occur  
2 all of the time and there are ways in which you  
3 handle that. What I thought -- what I was being  
4 asked to do is take a very simplistic view of  
5 the table that I gave you, which came from the  
6 state's own modeling. I didn't do this modeling.  
7 They did the modeling. It shows other state  
8 sources affecting non-attainment area in Illinois.

9                   Then I was asked to sort of  
10 comment on whether they were substantial or  
11 significantly culpable. It's their only modeling  
12 that shows this. If it's not culpable, take it  
13 out of the modeling. Let your modeling rest  
14 without out-of-state sources. Be clean about it.

15                   If it is going to be contributing,  
16 well, do something about making sure that their  
17 contribution is appropriate to what you modeled.  
18 It's a consistency argument. If it's in, it's in  
19 all the way. If it's out, it's out.

20                   MS. BUGEL: And can you explain in  
21 your experience, do you know the ways one state  
22 might try to obtain limits on the source in another  
23 state?

24                   MR. SAHU: Well, states have mutual

1 understandings, memoranda of understanding. They  
2 can -- typically, they're sovereign entities so  
3 they have to have some legal instrument that  
4 basically says that we in Illinois are going to  
5 have to rely on some assurances and how you  
6 document that is with some memoranda. That's my  
7 experience.

8 I mean, that happened in the  
9 regional Hayes rulemaking. That has happened  
10 in the so-called transport rulemaking. In the  
11 northeast, we have -- you cross 50 miles here  
12 and you're in a different state. I mean, it's  
13 very common for transboundary -- I mean, intrastate  
14 boundaries -- I mean, intrastate boundary issues,  
15 rather, to be dealt in a somewhat formal process.

16 If IEPA -- I mean, judging from  
17 what Mr. Bloomberg was saying, it feels like these  
18 sources are not significant contributors. Then  
19 explain that in your -- in the technical support  
20 document and make the case why it doesn't matter  
21 if these sources increase their emissions, things  
22 will still be fine and robust for the kind of  
23 scenarios that might play out in Lemont.

24 MS. BUGEL: And sorry, I lied when

1 I said one last question. I have one more, with  
2 leave of the Hearing Officer.

3 What can you tell me, looking  
4 at the chart, again there is a table in your  
5 testimony, I believe it's the biggest contributors  
6 in Lemont, can you tell me what sources are the  
7 biggest contributors in Lemont?

8 MR. SAHU: Well, Table B, has  
9 simply the top several sources and contributor  
10 of the highest receptor in Lemont. Again, I have  
11 to caution. This is based on staff's modeling  
12 and still going to be subject to some comment  
13 here in the future, but assuming it's okay for  
14 now, we have the formal CPC, we have Will County  
15 three, Argonne National Lab, then we have CITGO,  
16 and Oxbow and Koppers.

17 MS. BUGEL: What's the first biggest  
18 contributor?

19 MR. SAHU: The first -- the highest  
20 ones, without a doubt, is Will County Unit 4.

21 MS. BUGEL: And how does that compare  
22 to with the second largest contributor?

23 MR. SAHU: The second largest, 150  
24 plus micrograms per cubic meter for Will County 4

1 and then drops to four and a half micrograms per  
2 cubic meter. So it is dramatically smaller, the  
3 second highest, at least based on current modeling.

4 MS. BUGEL: Thank you. I have no  
5 further questions at this time.

6 HEARING OFFICER ROBERTSON: Thank  
7 you.

8 Does the Agency have follow-up  
9 questions?

10 MR. BLOOMBERG: Mr. Sahu, in  
11 Mr. Kolaz's Attachment A, you talked about the  
12 Pekin monitor.

13 MR. SAHU: Yes.

14 MR. BLOOMBERG: Do you know where  
15 the Pekin monitor is located and what major source  
16 most impacts that monitor?

17 MR. SAHU: I don't know. I'm new  
18 to the area. So I can't tell you exactly where  
19 I'm sitting where the monitor is.

20 MR. BLOOMBERG: So when you said it  
21 was unclear to you why it was so high or what was  
22 being done, you were truly saying it's unclear to  
23 you? You have no idea?

24 MR. SAHU: I'm looking at the numbers

1 and I was asking whether there is a trend in the  
2 numbers and I said that I don't see a trend, which  
3 is certainly not something like what we saw in the  
4 monitor.

5 MR. BLOOMBERG: Okay. So you're  
6 unaware that the main source impacting that monitor  
7 is, in fact, putting on controls? Not putting on  
8 controls, but changing what they're doing.

9 MR. SAHU: Would that be Aventine?  
10 Yeah, I mean, when I looked at the contributions  
11 in the modeling, the Aventine source -- I  
12 think the top eight sources were from that one  
13 particular facility. So if that is, in fact,  
14 contributor, then I'm aware of that.

15 MR. BLOOMBERG: Going back to  
16 ultra-low sulfur diesel --

17 MR. SAHU: Yes.

18 MR. BLOOMBERG: -- if the Agency  
19 presumably knows the information from an engine,  
20 isn't it reasonable to expect that that information  
21 was used in the calculation of the SO2 allowables?

22 MR. SAHU: Yes, it does. And it's  
23 also reasonably simple to simply to lay out that  
24 spreadsheet of that calculation and show how the

1 calculations are attained.

2 MR. BLOOMBERG: Did you ask for that  
3 spreadsheet at either the first hearing or the  
4 second hearing when all of these Agency witnesses  
5 were available?

6 Did you or anyone else from the  
7 Sierra Club ask for that information?

8 MR. SAHU: Mr. Bloomberg, I was not  
9 at the first two hearings. I could not have asked  
10 that question. I don't know if the Sierra Club  
11 asked that, but I do remember asking detailed  
12 questions about emission calculations on public  
13 phone calls that we had, as I testified to.

14 MR. BLOOMBERG: Did you specifically  
15 ask for that information --

16 MR. SAHU: Yes.

17 MR. BLOOMBERG: -- in those phone  
18 calls?

19 MR. SAHU: Yes. I said give me all  
20 your details for your emission calculations.

21 MR. BLOOMBERG: And did we offer to  
22 give that information and you did not take us up  
23 on that information because a drive was not sent  
24 to us?

1 MR. SAHU: Okay. All right. I --  
2 I -- I don't know what to say. I don't think it  
3 takes a --

4 MR. BLOOMBERG: That's a yes or no  
5 question.

6 MR. SAHU: It's -- okay. It's not  
7 a yes or no question, Mr. Bloomberg, because you  
8 don't need a drive. You can email the spreadsheet.  
9 The drive is for -- pardon me. Let me finish my  
10 answer. It is for your modeling files, which are  
11 gigantic.

12 MR. BLOOMBERG: And you just said  
13 you asked for all of the information. So did  
14 you specify that you wanted this specific  
15 information; yes or no.

16 MR. SAHU: Yes.

17 MR. BLOOMBERG: You said, in  
18 answering your question, something about that  
19 SO2 emissions could change if a source changes  
20 to a different engine. You're aware that  
21 would require a construction permit, right,  
22 that sources can't just randomly switch to new  
23 engines?

24 MR. SAHU: Well, sure. I never

1 said they could randomly switch to new engines.

2 I said she asked how are the emission rates in  
3 mass terms related to SO2 concentration.

4 MR. BLOOMBERG: That would have  
5 an enforceable limit?

6 MR. SAHU: I don't know how you  
7 enforce limits for every single source here, but  
8 yes, I said the same thing. I said you need  
9 enforceable limits on the size as well as the  
10 fuel content.

11 MR. BLOOMBERG: All right. If the  
12 Agency testified today that the maximum allowable  
13 emissions from diesel burning units was calculated  
14 from the maximum fuel use possible in the unit and  
15 the sulfur content of the fuel, would this be an  
16 acceptable means of calculation?

17 MR. SAHU: You have to presumably make  
18 some assumptions on the hours of operations  
19 depending on how you are doing the calculations.  
20 There are emergency engines that are sometimes a  
21 couple hundred dollars to 500 hours per year. So  
22 there is that.

23 So there are -- I mean, it's  
24 not a complicated calculation, but there are

1 inputs. There are assumptions. So if you know  
2 emission factor or you know the fuel content and you  
3 know the size and you know the lower and you know  
4 the hours of operation, sure.

5 MR. BLOOMBERG: So if that was  
6 included in the model, then the model already  
7 reflects the maximum allowable emissions under  
8 ultra low sulfur diesel for units that burn  
9 diesel?

10 MR. SAHU: If you did all that,  
11 yes, yes, verified with the confusing spreadsheet  
12 which --

13 MR. BLOOMBERG: Thank you. You  
14 answered it.

15 In discussing the Indiana sources,  
16 you suggested we should either -- you said something  
17 along the lines you should either put them all in  
18 there or take them all out.

19 Are you aware that we are required  
20 to model all of the sources in the area to determine  
21 if they are impacting non-attainment in the area?

22 MR. SAHU: Yes. Mr. Bloomberg, in  
23 response, could you point me to your technical  
24 support documents where you have called out the

1 Indiana sources and said they are not significantly  
2 culpable, we were required to model them and we  
3 have, therefore, decided to do anything. Where is  
4 the member public who is reviewing this?

5 MR. BLOOMBERG: I'm asking questions  
6 now.

7 MR. SAHU: Well, I'm asking for  
8 clarification, Mr. Bloomberg. I mean, think it's --  
9 I'm entitled to respond that -- in the same line  
10 of questioning that you ask.

11 MR. BLOOMBERG: I'm asking questions  
12 now. Later, you can ask me questions. That's the  
13 way the process works.

14 MR. SAHU: Fair enough. Okay.

15 HEARING OFFICER ROBERTSON: I'm sorry.  
16 I'm going to cut in here for a second. Can we go  
17 off the record. Thank you.

18 (Whereupon, a discussion  
19 was had off the record.)

20 HEARING OFFICER ROBERTSON: Okay.  
21 Let's go back on the record. You may continue.

22 MR. SAHU: Mr. Bloomberg, can I ask  
23 you a question or is there a question pending? I  
24 just wanted to know.

1 MR. BLOOMBERG: One moment.

2 HEARING OFFICER ROBERTSON: At  
3 this state, we're just taking questions for you,  
4 Mr. Sahu.

5 MR. SAHU: Yeah. I was just asked  
6 if there's a question pending.

7 HEARING OFFICER ROBERTSON: Thank  
8 you.

9 MR. BLOOMBERG: We're done for now.

10 HEARING OFFICER ROBERTSON: Thank  
11 you.

12 At this stage, we're going to  
13 open it up to the audience. Is there anyone in  
14 the audience that has any questions specifically  
15 for Mr. Sahu? Please just step up to the podium  
16 and use the microphone. Thank you.

17 Obviously, state your name and  
18 spell it. Thank you.

19 MS. GARLISH: My name is Robin  
20 Garlish. I live in Central Illinois. I live in  
21 Pekin, Illinois. R-O-B-I-N, G-A-R-L-I-S-H.

22 I have to ask Mr. Bloomberg,  
23 because he said --

24 HEARING OFFICER ROBERTSON: I'm

1 sorry. These are specifically questions for  
2 Mr. Sahu at this stage.

3 MS. GARLISH: Okay. Well, I heard a  
4 question asked was there anybody in the general  
5 public that had asked for information on the  
6 monitors, where they're at and have they read.  
7 I have. I know where they are in Peoria County  
8 and I know where they are and I would like to  
9 ask this corporate crap -- excuse my language --  
10 is affecting my family and I don't understand  
11 why these questions are so relevant and the  
12 millions of dollars in corporate accountability  
13 and then the million of dollars in our health.

14 I have chronic asthmatic  
15 children in my family. I'm asking that. Why  
16 that is that so important and he's asking him --  
17 Mr. Bloomberg is asking him if he asked for all  
18 of the information. He said he asked for all  
19 the information. Then he said, why didn't you  
20 get all of the information? So I'm asking why  
21 is he asking that question?

22 HEARING OFFICER ROBERTSON: Well,  
23 Ms. Garlish, I apologize. You will -- there will  
24 be an opportunity later to offer comment for any

1 comments on anything that happened in earlier  
2 hearing.

3 At this stage, we're  
4 specifically -- we're restricting it specifically  
5 for questions for Mr. Sahu on his current testimony.

6 MS. GARLISH: I just wanted to ask  
7 why there wasn't a little more specification because  
8 there was a question on a question.

9 HEARING OFFICER ROBERTSON: Thank  
10 you.

11 Any other members of the audience  
12 have questions of Mr. Sahu at this stage?

13 Seeing none, were there any  
14 follow-up questions for Mr. Sahu in front here?  
15 Any members of the Board or Board staff have  
16 questions?

17 Seeing no more questions,  
18 Mr. Sahu, thank you for your time and for your  
19 testimony today.

20 MR. SAHU: Thank you.

21 HEARING OFFICER ROBERTSON: Thank  
22 you again, Mr. Sahu.

23 We also have the pre-filed  
24 testimony of Andrew Gray of Sierra Club and

1 Environmental Law & Policy Center. So we will  
2 now move on to that. You may continue. Thank  
3 you.

4 MS. BUGEL: Dr. Gray, was pre-filed  
5 testimony submitted on behalf of Sierra Club and  
6 Environmental Law & Policy Center submitted -- you  
7 pre-filed testimony submitted in this action?

8 DR. GRAY: Yes.

9 MS. BUGEL: And do you have changes  
10 in that testimony today?

11 DR. GRAY: No.

12 MS. BUGEL: And Sierra Club and  
13 Environmental Law & Policy Center would move for  
14 the admission of Dr. Gray's testimony as if read  
15 and again, I apologize for only bringing one copy  
16 today.

17 HEARING OFFICER ROBERTSON: I do  
18 have a copy of the testimony as it was received  
19 by the Board on July 24th.

20 Are there any objections  
21 to the motion to move this testimony as read as  
22 an exhibit?

23 MR. BONEBRAKE: No objections  
24 subject to cross.

1 HEARING OFFICER ROBERTSON: Thank  
2 you. Anybody else?

3 Thank you. Seeing none, I will  
4 enter the pre-filed testimony of H. Andrew Gray  
5 on behalf of Sierra Club and Environmental Law &  
6 Policy Center as Sierra Club Exhibit B.

7 (Document marked as Sierra  
8 Club Exhibit B for  
9 identification, 8/4/15.)

10 MS. BUGEL: And we presented Dr. Gray  
11 for cross-examination.

12 HEARING OFFICER ROBERTSON: If  
13 there is no additional testimony then at this  
14 stage, are there -- does the Agency have questions  
15 for Dr. Gray?

16 MS. VETTERHOFFER: Yes, we do. Thank  
17 you.

18 HEARING OFFICER ROBERTSON: Thank  
19 you.

20 MS. VETTERHOFFER: Mr. Gray, when  
21 did you begin your review efforts pertaining to  
22 this rule?

23 DR. GRAY: I'm not sure of the date,  
24 but approximately two months ago.

1 MS. VETTERHOFFER: On Pages 1 to 2  
2 of your testimony, you claim that the Agency's  
3 plan dismissing key elements required as a SIP  
4 process including a documented modeling analysis  
5 to support the demonstration of attainment,  
6 you're aware, though, that this is not an attainment  
7 demonstration hearing, correct?

8 DR. GRAY: Yes.

9 MS. VETTERHOFFER: And you do  
10 understand that the rule, if adopted, will be a  
11 component of the Agency's SIP to the US EPA, but  
12 there will be other components as well including  
13 Agency's attainment demonstration?

14 DR. GRAY: Yes.

15 MS. VETTERHOFFER: And you understand  
16 that the attainment demonstration will go through  
17 a separate Agency public comment period and there  
18 will be an option for additional public hearing,  
19 right?

20 DR. GRAY: So I've heard.

21 MS. VETTERHOFFER: Do you understand  
22 that US EPA itself will open up another public  
23 comment period when it presumably proposes to  
24 approve the attainment demonstration?

1 DR. GRAY: I'm not aware of that, but  
2 okay.

3 MS. VETTERHOFFER: Have you ever been  
4 involved in an Illinois Pollution Control Board  
5 air rulemaking?

6 DR. GRAY: No.

7 MS. VETTERHOFFER: Have you ever  
8 attended an Agency attainment demonstration hearing?

9 DR. GRAY: No.

10 MS. VETTERHOFFER: Are you aware of  
11 any prior instance in which the Illinois EPA's final  
12 attainment demonstration was adopted prior to the  
13 Board finalizing emission limitations or controls in  
14 a rulemaking?

15 DR. GRAY: No.

16 MS. VETTERHOFFER: And this is  
17 just a clarification question. On Pages 2 to 3  
18 testimony, you cite some US EPA guidance. Could  
19 you clarify that the guidance provision that you  
20 cite that begins "the attainment plan" regards  
21 what must be contained in an attainment  
22 demonstration that will be submitted to the US  
23 EPA?

24 DR. GRAY: I'm not sure of your

1 question.

2 MS. VETTERHOFFER: On my version,  
3 it's the very top of Page 2.

4 DR. GRAY: Yes.

5 MS. VETTERHOFFER: You cite and quote  
6 two specific US EPA guidance provisions.

7 DR. GRAY: Yes.

8 MS. VETTERHOFFER: In that first  
9 provision where it says, "the attainment plan for  
10 the affected area should," et cetera.

11 DR. GRAY: Yes.

12 MS. VETTERHOFFER: You understand  
13 that that regards what the Agency must include  
14 in an attainment demonstration to the US EPA,  
15 correct?

16 DR. GRAY: Yes.

17 MS. VETTERHOFFER: Throughout your  
18 testimony, you site information that the Agency  
19 has not made available to the Sierra Club.

20 Are you familiar with the  
21 information the Agency has provided both as part  
22 of the outreach in this rulemaking and in response  
23 to specific requests from the Sierra Club?

24 DR. GRAY: I'm not aware of all of

1 the information in the outreach, but the Sierra  
2 Club I am, yes.

3 MS. VETTERHOFFER: Are you aware  
4 that the information that the Agency has already  
5 provided to the Sierra Club or that we offered  
6 to provide to the Sierra Club included all of  
7 the information you list on Page 2 of your  
8 testimony?

9 DR. GRAY: Yes. You offered to  
10 supply that to us two weeks ago. You gave us  
11 the draft modeling attainment demonstration  
12 draft on that date or a couple days of that,  
13 in fact.

14 And in that, there was a list  
15 of a dozen or more appendices, which included  
16 very important information, which you then asked  
17 us to then request the appendices. A week later,  
18 you told us give we needed to give you a drive to  
19 support all of that. There was not enough time  
20 between then and now to sufficiently review  
21 all of that information. So we didn't push it  
22 in terms of getting it before today. We still  
23 would like to look at that information.

24 So it's just a matter of time.

1 We haven't had the time to review the modeling  
2 as well as all of the appendices to that modeling.  
3 It also appears that we have a difference of  
4 opinion what's supporting documentation. Well,  
5 you may not need to prepare your attainment  
6 demonstration separate from your rulemaking,  
7 it clearly is supporting the rulemaking.

8           You ran the model in order  
9 to determine your reduction targets. You used  
10 the modeling as support for your reduction  
11 target to show that this would reach attainment.  
12 If the modeling should turn out to be all wrong,  
13 and I'm not suggesting it is, but if it was all  
14 wrong, are you going to go back and redo the  
15 rulemaking or are you putting the rulemaking in  
16 front of the modeling?

17           But, in fact, you're using the  
18 modeling as support. So while you may not need  
19 to have it go through all of the review that is  
20 necessary beforehand by the rules, it's certainly  
21 by the technical -- now, I'm just a scientist.

22           I'm trying to understand what  
23 information you used to support your rulemaking  
24 and you're telling me you used this modeling to

1 support your rulemaking, but you won't let us  
2 review the modeling. So it's a little bit backwards  
3 to us of what you consider the technical support  
4 documentation in order to support this rulemaking.

5 MS. VETTERHOFFER: Now, Dr. Gray,  
6 I would like to go back to the timing of when  
7 you claim we indicated we would get you that  
8 information and when you actually received an  
9 email indicating what we needed from you first.

10 Isn't it true that on July 15th,  
11 members of the Agency had a telephone conversation  
12 with the Sierra Club? I believe you might have  
13 been on that call, but I'm pretty sure Mr. Sahu  
14 was. Is that your understanding on July 15th?

15 DR. GRAY: I don't remember the  
16 exact date, I believe you. I was -- I was on  
17 one or two calls with the Agency in the last two  
18 weeks.

19 MS. VETTERHOFFER: Are you aware it  
20 was the very next day that the Agency provided  
21 you the draft modeling TSD that you just referenced.

22 DR. GRAY: Yes.

23 MS. VETTERHOFFER: And are you aware  
24 that it was the very next day, July 17th, the Agency

1 indicated to the Sierra Club that we would be happy  
2 to provide any additional the information to you if  
3 you simply overnighted a jump drive or portable hard  
4 drive to the Agency and we would be happy to then  
5 overnight that back to you?

6 DR. GRAY: Yes. I'm well-aware of  
7 that.

8 MS. VETTERHOFFER: What is the week  
9 delay that you referenced just a moment ago then?

10 DR. GRAY: Well, the -- I'm not sure  
11 it was a week delay. There was a delay -- we got  
12 the -- we got the draft modeling document. I had  
13 to spend a day or two reading that. I thought it  
14 was over that weekend. After I read through it, I  
15 went -- noticed right off the bat that there was  
16 along list of appendices, which were not delivered.

17 You gave us the document, but  
18 it had thousands of pages and files that were  
19 appendices to that document that we also needed  
20 and I requested. Then you told us, well, we needed  
21 to have a -- give you a drive in order to get that  
22 information.

23 At that point I think we --  
24 while we still want to get that, and we still do,

1 I think we realized we would not have enough time  
2 to go through all of that before this -- before  
3 today.

4 MS. VETTERHOFFER: Would you have had  
5 more time than you have today -- strike that.

6 If you had, in fact, sent a  
7 jump drive to the Illinois EPA overnight and  
8 we had indeed, as we promised, sent you back  
9 something overnight, isn't it true that you would  
10 have had over two weeks to review that information  
11 prior to today's hearing?

12 DR. GRAY: Assuming we got that  
13 jump drive that day, we might have had approximately  
14 a week or a week and a half. I don't think it's  
15 quite two weeks. I have other things that I'm  
16 working on as well. So in terms of how much time  
17 I would have had, yes, I would have had some time  
18 to quickly look at it.

19 I'm talking about reviewing  
20 large amounts of data, big spreadsheets, files,  
21 modern files. You asking me to do a complete  
22 review on that in a week. It takes longer than  
23 that, frankly.

24 MS. VETTERHOFFER: Dr. Gray, I didn't

1 ask you to review anything.

2 I'm simply asking if you had  
3 obtained the information, you would have had time to  
4 review it prior to this hearing.

5 DR. GRAY: I would have had some  
6 time, but not necessarily a sufficient amount  
7 of time.

8 MS. VETTERHOFFER: Thank you.

9 Are you aware, Mr. Gray, that  
10 Mr. Jeff Sprague, the manager of the modeling  
11 unit at the agency, is available today and has  
12 been available at both prior hearings that have  
13 taken place in this matter to answer any questions  
14 about the Agency's modeling and any questions  
15 about the documentation provided by the Agency?

16 DR. GRAY: Well, now that you've  
17 told me that, I am aware. I was not before now.

18 MS. VETTERHOFFER: Are you aware  
19 that the Sierra Club has failed to ask him even  
20 one question requesting more information about  
21 his modeling despite him being available for that  
22 very reason?

23 DR. GRAY: Well, I don't know  
24 exactly how the questions got asked, but I certainly

1 requested through Sierra Club that these documents  
2 be requested and as far as I know, they went through  
3 Mr. Bloomberg and maybe not directly to Mr. Sprague,  
4 but we certainly did make requests for these  
5 documents.

6 MS. VETTERHOFFER: Do you know if  
7 requests have happened at either of the prior two  
8 hearings in this rulemaking?

9 DR. GRAY: No. I don't know. I was  
10 not attending those hearings.

11 MS. VETTERHOFFER: Okay. Mr. Gray,  
12 on Page 3 of your testimony, you discussed that  
13 the modeled concentration from Will County 4 at  
14 the key receptor is the 150 micrograms per cubic  
15 meter. I'm sorry. Let me rephrase that.

16 On Page 3 of your testimony,  
17 you discussed that the modeled concentration  
18 from Will County 4 at the peak receptor of 150  
19 micrograms per cubic meter combined with the  
20 other sources has a cumulative total concentration  
21 at that peak receptor of 191.5 micrograms per  
22 cubic meter one-hour standard -- one-hour NAAQS  
23 standard is 196.32 micrograms per cubic meter,  
24 correct?

1 DR. GRAY: Yes.

2 MS. VETTERHOFFER: So that receptor  
3 model is being in attainment, correct?

4 DR. GRAY: Yes.

5 MS. VETTERHOFFER: Since the receptor  
6 is in attainment, Will County 4's contribution to  
7 that peak receptor is clearly less than the NAAQS,  
8 correct?

9 DR. GRAY: 150 is less than 190, yes.

10 MS. VETTERHOFFER: Thank you.

11 Under the Agency's proposal, Will  
12 County 4 is subject to a new hourly SO2 emission  
13 rate in Section 214.603 whether or not it installs  
14 flue gas desulfurization equipment; is that correct?

15 DR. GRAY: Yes.

16 MS. VETTERHOFFER: So if the peak  
17 receptor will meet the NAAQS with Will County 4's  
18 proposed emission limit, further controls such as  
19 flue gas desulfurization equipment unnecessary to  
20 attain the standard, correct?

21 DR. GRAY: If the objective is just  
22 to model and run the model exercise and that has  
23 been done, that's correct.

24 MS. VETTERHOFFER: Also, on Page 3

1 of your pre-filed testimony, it's right under the  
2 quote, you indicate, "These units combined account  
3 for only 4.6 micrograms per cubic meter at the peak  
4 modeled receptor." In saying, "these units," you're  
5 referencing Joliet 6, 7 and 8 and Will County 3;  
6 is that right?

7 DR. GRAY: Yes.

8 MS. VETTERHOFFER: A couple of  
9 sentences later, you say, "If emission reductions  
10 occur at these other units instead, the modeling  
11 will not demonstrate attainment, i.e., emissions  
12 are not interchangeable in terms of their  
13 concentration impacts at peak model receptors."

14 I'm just not sure what you mean  
15 by that. Are you saying that Illinois EPA has not  
16 already demonstrated attainment at this peak model  
17 receptor?

18 DR. GRAY: Okay. There's a bit  
19 of confusion that I had. When I first saw this  
20 passage -- the point when I first saw this passage,  
21 all I had was five iterative Lemont strategies,  
22 which were emission reduction strategies, emission  
23 totals that were running, and the attainment and  
24 modeling results for each of those strategies.

1                   In those strategies, there  
2 was a reduction, a 28 percent reduction for Will.  
3 Now, this is a paper reduction reducing a NAAQS  
4 emissions from an earlier allowable to the current  
5 allowable -- proposed allowable -- and that was  
6 needed in order to get attainment.

7                   Nowhere did I have any information  
8 about what controls were actually necessary. We  
9 kept asking for this and got nothing. This is the  
10 kind of information I'm looking for in a technical  
11 support document, which is not just we need to  
12 reduce emissions from 100 to 80, but what controls  
13 are actually going to work?

14                   You guys talked about the fact  
15 that you sat down with industry to hammer out  
16 these -- to, you know, negotiate these permit  
17 limits, but did you not ask them whether this was  
18 achievable or just were they happy with the number?  
19 Did it require a control or did it require any  
20 change in operations?

21                   This is the kind of information  
22 that we are requesting. At that point when I first  
23 read this passage, I had no idea what controls were  
24 needed. In fact, despite the fact that we kept

1 asking for it, the first time I saw anything about  
2 actual required controls was in response to a Board  
3 question a few weeks ago where the question was  
4 asked to the Agency and the Agency finally gave us  
5 a table, which I saw, which said each source that  
6 was listed in terms of the permit limits and what  
7 controls, if any, were necessary. Many of them --  
8 most of them said no additional controls were  
9 necessary including Will County.

10 At that point, I realized okay,  
11 Will County, you guys are saying that you get  
12 this 28 percent paper reduction of their allowables  
13 without making any changes in their operating  
14 conditions including any control measures. Until  
15 that point, I had no idea that that was the case.  
16 that was something that I was requesting. This is  
17 the same thing that Ron was talking about as far  
18 as getting the transparent information about what  
19 assumptions you're making about the controls in the  
20 future -- I mean, about the emissions in the future  
21 before controls are put on, after controls are put  
22 on and whether or not controls are needed in order  
23 to reach some emission limit.

24 So at the time point where I

1 read this, all I saw was your five iterations in  
2 which one of them showed a 28 percent reduction  
3 in Will County No. 4, I assumed that that implied  
4 some controls were necessary. So that's what I  
5 was referring to. So there was some confusion  
6 there.

7           The second part of my answer,  
8 though, which is probably even more important  
9 than attainment demonstration because yes, you  
10 have shown that through the attainment modeling  
11 and demonstration modeling that Will County at  
12 this paper reduction of 28 percent will get you  
13 the standard, but, in fact, they may not even be  
14 emitting that much, but there's a bigger question  
15 involved here, which is what's stated in this  
16 passage.

17           What's stated in passage very  
18 clearly is that Midwest Generation was requesting  
19 an exemption of some control requirement. Now,  
20 that control requirement, I don't know whether  
21 they had a legal control requirement or not, but  
22 apparently there was some exemption of a requirement  
23 to install FGD before December 31, 2018, and it  
24 says right there that the Agency says in light of

1 the emission reductions that will result from  
2 conversion of the other sources that they were  
3 granting this exemption, your own modeling shows  
4 that emissions are not equal.

5 Emissions from Joliet do not  
6 impact the design value location in the same  
7 way that the Will County 4. Will County 4  
8 contributes 150 to the highest model receptor  
9 and these other sources, which you now told me  
10 you're controlling instead contribute 4.6. If  
11 you removed all of the 4.6 out, we could get  
12 that big of reduction at your peak receptor  
13 whereas if we actually controlled Will County 4,  
14 we'll make a difference there.

15 That's all I'm talking about.  
16 Now, whether or not officially you need to model  
17 something to demonstrate attainment is different  
18 than the real world. These models are just tools.  
19 They don't tell you exactly what's going on. In  
20 fact, one question that I'd really like to ask is  
21 you talked about earlier -- you talked about Pekin  
22 having a measured concentrations of over 200, but  
23 yet you never demonstrated to me satisfactorily  
24 what sources are contributing that 200. You're not

1 modeling that.

2           You're modeling allowable  
3 emissions. So you need to do this as well as a  
4 scientific statement in order to understand who --  
5 what sources are causing the current problem  
6 and then try to back yourself out of that. If  
7 you make no changes to the emissions in Pekin,  
8 the concentrations will continue to be over 200  
9 despite the fact that your model might not say  
10 that.

11           So the model is a tool and it  
12 is used in certain ways and is required to be  
13 used by the government -- by the EPA in these  
14 ways to demonstrate attainment, but if you really  
15 want to ask will we reach attainment next year or  
16 the year after, if your meteorology next year is  
17 really, really bad, there is a probability -- a  
18 likelihood that you will have non-attainment  
19 reading or a violation of your standard despite  
20 the fact you meet all of these permit limits.

21           So it's all a matter of a  
22 probability or likelihood. The whole idea of  
23 this process is to lower that likelihood down  
24 to a level that's smaller, acceptable and it's

1 low. That's how we do this. That's why we  
2 model at maximum emissions for every hour even  
3 though most sources don't operate there allowable  
4 every hour, but we still enforce the modeling  
5 to show that if they were modeling that it would  
6 reach attainment.

7 MS. VETTERHOFFER: I'm still on the  
8 same portion of your testimony. Are you aware that  
9 the modeling that you referred to -- and I'm sorry  
10 if you already answered this and I didn't pick it  
11 out -- but are you aware that the modeling to which  
12 you are referring already accounts for the  
13 conversions of Joliet 6, 7 and 8 and Will County 3  
14 such that they are no longer modeled as combusting  
15 hole?

16 DR. GRAY: Yes.

17 MR. BLOOMBERG: A moment ago, you  
18 said you could swap out all the contribution from  
19 Joliet 6, 7 and 8 and Will County 3 and it would  
20 essentially have no impact.

21 So the question we're trying --  
22 that Dana was just asking is, are you aware that  
23 when you're talking about that small contribution,  
24 it is that small because it is already modeled as

1 firing natural gas or diesel oil, not coal so the  
2 reduction --

3 DR. GRAY: Yes. However, in the  
4 first model run you did, the very scenario one  
5 where anything is allowable before they were  
6 controlled, it still has a much, much, much  
7 smaller contribution. I don't remember the  
8 number offhand. It's not four. It's larger.  
9 But it's not 150. I don't know the number  
10 offhand, but it's still amount even before it  
11 was put under control.

12 The whole point is that  
13 Joliet not Will County 3, Will County 3 is  
14 fairly small, but Joliet is located further  
15 south and it only impacts largely the southern  
16 portion of non-attainment area. Not the location  
17 that Will County is -- well, not the design  
18 location where Will County is high.

19 MR. BLOOMBERG: But it does impact  
20 receptors in the non-attainment area.

21 DR. GRAY: It does impact, yes.

22 MR. BLOOMBERG: Just not this  
23 particular receptor?

24 DR. GRAY: It impacts other receptors

1 and to a larger extent, other receptors, yes, that's  
2 correct.

3 MS. VETTERHOFFER: For purposes of  
4 getting the Lemont area into attainment of the SO2  
5 NAAQS, does it matter what controls are put on or  
6 does it matter what limit the source must achieve  
7 using whatever controls it deems necessary to  
8 achieve that limit?

9 DR. GRAY: Well, to those of us who  
10 are breathing the air quality, it only matters how  
11 much they emit. It doesn't matter to me how they  
12 get there obviously. So you've answered your  
13 question in a sense.

14 MS. VETTERHOFFER: Are you aware that  
15 Aventine Renewable Energy is switching from coal to  
16 natural gas?

17 DR. GRAY: Offhand, I don't recall  
18 what their control plans were, no. So I don't  
19 remember.

20 MS. VETTERHOFFER: Aventine's switch  
21 from coal to natural gas will result in actual  
22 emission reductions that will impact the Pekin  
23 monitor, correct?

24 DR. GRAY: If Aventine is reducing

1 their emissions, it will affect the Pekin monitor,  
2 that's correct.

3 MS. VETTERHOFFER: Moving on, on  
4 Page 4 of your testimony, you claim, "It is unclear  
5 that the proposed plan is the most sensible  
6 approach. In other words there may be a better  
7 strategy of emission reductions for which the  
8 collection sources can demonstrate attainment  
9 with the NAAQS."

10 You are aware, though, that  
11 the Illinois EPA conducted extensive outreach  
12 with impacted sources to determine the most  
13 sensible approach taking into account the need  
14 to bring the areas into attainment, which sources  
15 are most culpable and which sources can most  
16 easily accomplish allowable emission reductions,  
17 correct?

18 DR. GRAY: Yes. However, when you  
19 said that you did that, that's wonderful that you  
20 did that. I assume -- I hope you did that, that  
21 sat down with the interested parties and hashed  
22 this out.

23 As a scientist trying to look  
24 over your shoulder and review this process, all

1 I was asking for was the transparency. I wanted  
2 to see what information, what controls were put  
3 on the books, why did you choose Control A instead  
4 of Control B when Control B maybe was a better  
5 choice?

6 You know, the industry might  
7 have chose Control B because that is what favored  
8 them whereas those of us in the breathing might  
9 have preferred Control A. So it's not clear to  
10 me that every step that you took was the "best  
11 way" alternative or that there wasn't maybe an  
12 alternative that could be considered.

13 I'm not saying that you did  
14 wrong. In fact, the more I look at it, the more  
15 it seems reasonable, but it required me to dive  
16 into those spreadsheets and try to figure out on  
17 my own every step that was done and why it was  
18 done in terms of the culpability analysis and the  
19 emissions from each source that was contributing  
20 to a high design value.

21 I had to make the guesses about  
22 looking over your shoulder about what you did  
23 rather than being able to actually look over your  
24 shoulder and having you say you say this is why we

1 chose this source to be controlled and not that  
2 source. This is why we chose three 1,300 sources to  
3 reduce 99 percent when it wasn't really needed or  
4 maybe it was. You didn't demonstrate why you did  
5 what you did.

6 That's all we were asking for  
7 was some road map so that we had a better sense  
8 of controls you choose and why although you  
9 didn't -- I shouldn't say controls. I should  
10 say emission reductions. You don't actually  
11 specify controls, just reductions.

12 MS. VETTERHOFFER: On Page 4, you  
13 also claim that using a different set of sources  
14 and/or controls may also demonstrate attainment  
15 at a lower cost. I just want to clarify do you  
16 claim to be speaking for any impacted company --

17 DR. GRAY: No. I'm just speaking --  
18 as an example, I have done many control -- sit tight  
19 planning control strategy analyses, control strategy  
20 optimization, and you can optimize a control  
21 strategy based on any resource you want including at  
22 dollars, which is usually the first thing.

23 You want to put on the cheapest  
24 controls first to get you the biggest bang for

1 the buck and then work your way down putting on  
2 the less effective controls as you go along until  
3 you get down to the air quality goal that you have.

4           You would be foolish to put on  
5 the most expensive controls first in lieu -- in  
6 light -- in lieu of your inexpensive ones. That's  
7 all I was referring to. This is just one way of  
8 going about the process.

9           MR. BLOOMBERG: So if it would be  
10 foolish, in your own words, to put on the most  
11 expensive controls first, looking at that peak  
12 receptor that you talked about, if it already  
13 reaches attainment, then by your own logic, I  
14 would be foolish to require controls --  
15 multi-million-dollar controls on any source that  
16 doesn't need it to bring the area into attainment,  
17 correct?

18           DR. GRAY: Once you've reached  
19 attainment, you don't need to necessarily put on  
20 additional controls, I agree.

21           MS. VETTERHOFFER: Thank you,  
22 Mr. Gray. That's all the Agency has right now.

23           HEARING OFFICER ROBERTSON: Thank  
24 you.

1 Mr. Bonebrake, do you have any  
2 questions?

3 MR. BONEBRAKE: I have just a couple  
4 of questions.

5 HEARING OFFICER ROBERTSON: Then  
6 go ahead. Thank you.

7 MR. BONEBRAKE: Good afternoon,  
8 Mr. Gray.

9 DR. GRAY: Good afternoon.

10 MR. BONEBRAKE: I have just a couple  
11 of questions. First along the same lines I asked  
12 Mr. Sahu, are you being paid to testify today?

13 DR. GRAY: Yes.

14 MR. BONEBRAKE: Are you being paid  
15 by the hour?

16 DR. GRAY: Yes.

17 MR. BONEBRAKE: What is your hourly  
18 rate?

19 DR. GRAY: \$150.

20 HEARING OFFICER ROBERTSON: I'm sorry,  
21 Mr. Bonebrake: If you don't mind, please speak in  
22 the microphone.

23 MR. BONEBRAKE: Thank you. I'll try  
24 again.

1 I think there was a question that  
2 was asked, but I was curious. When is it that you  
3 started working for the Sierra Club in this matter?

4 DR. GRAY: About -- roughly about  
5 two months ago, plus or minus a few weeks. I'm  
6 not sure of an exact date.

7 MR. BONEBRAKE: And do you know  
8 when the IEPA filed proposed rule with the Board?

9 DR. GRAY: I don't know exact date  
10 offhand.

11 MR. BONEBRAKE: Does late April or  
12 early May sound right to you?

13 DR. GRAY: I think so, yes.

14 MR. BONEBRAKE: Is there any reason  
15 that you couldn't have asked IEPA for the  
16 information that you were looking for back in  
17 May?

18 DR. GRAY: No. There is no specific  
19 reason other than the fact that I was dumped --  
20 I'm not sure if the information was dumped into  
21 my lap and it was said, here, take a look through  
22 this. As I started to pour through it, it became  
23 clear that there was other information that I  
24 needed to support this.

1                   So the requests were made at that  
2 point. How long it took me to get those requests to  
3 IEPA, maybe there was some delay. Certainly,  
4 at some point, I realized I needed more than  
5 I had.

6                   MR. BONEBRAKE: And in question,  
7 I think it's on Page 3 of your testimony, but  
8 you didn't number it, so I -- hopefully, we have  
9 the same pagination, but it is related to some  
10 questions that Ms. Vetterhoffer asked you  
11 pertaining to the 4.6 micrograms per cubic meter,  
12 and I think you mentioned that you had seen a  
13 couple of different modeling exercises.

14                   One of those exercises, as I  
15 understood it was, prior to application of  
16 cessation of coal combustion requirements Will  
17 County 3 and Joliet 6, 7 and 8; is that correct?

18                   DR. GRAY: I believe so, yes.

19                   MR. BONEBRAKE: In that modeling  
20 exercise, prior to application of the requirement  
21 regarding coal combustion cessation of those four  
22 units, was the impact from those four units at  
23 the peak receptor higher than 4.6?

24                   DR. GRAY: Well, it have to be

1 because the emissions were higher. Therefore,  
2 the contributions would be higher, yes.

3 MR. BONEBRAKE: And do you recall  
4 whether the contributions in that modeling exercise  
5 were sufficient to put the number over, I think,  
6 it was 195 or 196, which is the NAAQS?

7 DR. GRAY: Well, that modeling  
8 didn't have just that source, you know, at the  
9 higher level with every other source controlled.  
10 It started out with all the -- it was the allowable.  
11 The total amount was thousands, not hundreds,  
12 the total particulate concentration. So it's  
13 hard to say. Yet that model wasn't in  
14 non-attainment all the way because there were  
15 many, many sources that were very high, not just  
16 the Joliet source.

17 MR. BONEBRAKE: Would you say based  
18 upon what you reviewed, that's that without the  
19 benefit of the SO2 reductions from the required  
20 cessation of coal combustion at the Joliet units  
21 of Will County 3 that the peak receptor would model  
22 above containment?

23 DR. GRAY: I don't know. I've  
24 never seen a model run with that specific scenario.

1 So I don't know. I do know that the Joliet --  
2 particularly the Joliet source, the highest  
3 concentrations -- the peak concentrations were  
4 in the southwest corner of the non-attainment  
5 area. Joliet is actually outside of the  
6 non-attainment area itself.

7 So it was highly impacting --  
8 it was significantly impacting areas in the  
9 southwest corner. Not causing violations, but  
10 causing high concentrations.

11 At the locations northeast of  
12 there near where the violations -- near where  
13 the design value concentrations would be  
14 predicted, the contribution from Joliet were very  
15 small relative to other sources.

16 MR. BONEBRAKE: Will County 3,  
17 however, same plant location as Will County 4; is  
18 that correct?

19 DR. GRAY: Yes, but it's emissions are  
20 much, much smaller.

21 MR. BONEBRAKE: It would take a  
22 very small level of emissions to contribute the  
23 five micrograms per cubic meter, correct?

24 DR. GRAY: Well, obviously even

1 with Joliet and that, it only contributed 4.6. So  
2 because the emission level is much, much lower than  
3 Will County No. 4, even a source located --  
4 co-located almost, once source contributes 150  
5 and the other one contributes less than the 4.6.  
6 It was some fraction of that.

7 MR. BONEBRAKE: But the 4.6 was  
8 representative of assumption that the proposed  
9 rules of in effect as the units of not combusting  
10 coal, correct?

11 DR. GRAY: Yes.

12 MR. BONEBRAKE: And if the units  
13 were combusting coal, if that were the working  
14 assumption, then the unit would be higher than  
15 4.6 including -- because Will County 3 is at the  
16 same plant as Will County 4, right?

17 DR. GRAY: Well, there's a little  
18 bit different situation between Will County 3  
19 and Joliet. Most of the emissions in that list  
20 of Unit 3, Will County 6, 7, 8, Joliet, most of  
21 those emissions are in Joliet. Will County 3 is  
22 almost a little asterisk on that. Yes, it's had  
23 a small amount of emissions which contributed a  
24 few micrograms. So I'm not sure why you're asking

1 about that. If you increase that, it would increase  
2 concentrations there, but the level that Will County  
3 3 was at, even uncontrolled, it was as much lower  
4 than Unit 4.

5 MR. BONEBRAKE: When you say much  
6 lower, how much lower?

7 DR. GRAY: Well, I don't know the  
8 emission numbers. I don't have them in front of  
9 me. I hear it's a much smaller unit than Unit  
10 No. 4.

11 MR. BONEBRAKE: Well, you mentioned  
12 that Will County 4 was modeled at 150. What  
13 percentage approximately of that was Will County 3?

14 DR. GRAY: I don't know the number  
15 offhand.

16 MR. BONEBRAKE: Is that in the  
17 records?

18 DR. GRAY: I could look it up in the  
19 information. It's in the records, yes.

20 MR. BONEBRAKE: Thank you. No further  
21 questions.

22 HEARING OFFICER ROBERTSON: Thank  
23 you.

24 Ms. Allgire, do you have anything?

1 MS. ALLGIRE: I do not. Thank you.

2 HEARING OFFICER ROBERTSON: Thank  
3 you. Ms. Bugel, do you have follow-up?

4 MS. BUGEL: I do. I do have a couple  
5 of follow-up questions. Thank you.

6 Dr. Gray, you were questioned  
7 at length about the timing of when you received  
8 certain items and I just want to confirm a couple  
9 of dates.

10 You received the draft TSD for  
11 the attainment demonstration on July 16th; is  
12 that correct?

13 DR. GRAY: I believe that's correct,  
14 yes.

15 MS. BUGEL: And the option of  
16 overnighting a thumb drive to IEPA was not given  
17 to the Sierra Club until July 17th; is that correct?

18 DR. GRAY: If that's a Friday, I  
19 believe that's correct.

20 MS. BUGEL: That's the Friday.

21 DR. GRAY: Yes.

22 MS. BUGEL: And it would have taken  
23 at least two days, perhaps two business days, to  
24 overnight a thumb drive there and then have it

1       overnighted back; is that correct?

2                     DR. GRAY: Typically, yes.

3                     MS. BUGEL: And so that thumb  
4       drive would not have been available until July  
5       20th or 21st, is that correct, or available to  
6       you?

7                     DR. GRAY: Maybe even later  
8       considering there's a weekend in there, but if  
9       we got that drive back early that week on the  
10      22nd or so.

11                    MS. BUGEL: And the deadline for  
12      your testimony was July 24th with the Board's  
13      extension; is that correct?

14                    DR. GRAY: Yes.

15                    MS. BUGEL: So from the time that  
16      you had the TSD, you only had eight days -- no  
17      even eight business, but eight calendar days  
18      until your testimony was due; is that correct?

19                    DR. GRAY: Yes.

20                    MS. BUGEL: And if you had received  
21      the thumb drive on the 20th or the 21st, you would  
22      have had three to four days at most to review all  
23      of the appendices and write testimony; is that  
24      correct?

1 DR. GRAY: Yes.

2 MS. BUGEL: And in your experience,  
3 is that adequate time to review a TSD and the  
4 supporting appendices and draft testimony on  
5 it?

6 DR. GRAY: Definitely not.

7 MS. BUGEL: And earlier, you  
8 indicated in your testimony a suggestion regarding  
9 modeling actuals instead of modeling allowables.  
10 Can you explain what you meant  
11 by that?

12 DR. GRAY: Well, if we were in an  
13 air basin and we measure -- monitor a violation  
14 of a NAAQS standard, there are a few -- there is  
15 a legal obligation to model -- to demonstrate  
16 attainment modeling all the sources at their maximum  
17 allowable emissions because even though most sources  
18 do not emit at their maximum every hour, so it's  
19 not a realistic situation, they could. They're  
20 allowed to. So the law says you have to assume  
21 that they might for any hour of the year. In fact,  
22 for every hour of the year, you put that up against  
23 the meteorology and run it.

24 Now, that's one question and

1 that's a legal obligation, but there's another  
2 question from a scientific standpoint, which is  
3 if measure a 225 microgram per cubic meter, 25  
4 ppm -- excuse me -- at ppb at Pekin and I want  
5 to know who is causing that -- what sources are  
6 causing that, it might behoove me to run the  
7 model with the actual emissions in order to  
8 determine which sources are contributing the high  
9 concentrations on those actual days.

10 That's how we have a particular  
11 monitor and a particular day that they measured,  
12 but it's a useful exercise to determine what  
13 sources are culpable. It's the same kind of  
14 culpability analysis you do on the other model.

15 So this is a scientific  
16 standpoint that would at least allow me to  
17 compare my plan with my allowable emissions and  
18 my allowable modeling to a realistic case to  
19 determine, do I expect there to be a violation  
20 next year or am I only controlling things halfway  
21 and I won't get all the way there?

22 If we have 225 micrograms per  
23 cubic meter in Pekin, one of the controlled strategy  
24 would be reduce emissions from every source in the

1 entire air basin from 225 to 75. What is that?  
2 Roughly, about one-third. If every source emitted  
3 one-third of what it used to emit, we could be  
4 pretty sure we'll be down to the standard, but  
5 that's not what we're going to do. You're going  
6 to control some sources and not control other  
7 sources and then, so you need to run the model  
8 and in both cases, you need to find out whether  
9 or not every source -- which sources contribute  
10 more than other sources.

11 It's the same kind of question  
12 we're asking in Will County versus Joliet.  
13 Emissions are not equal. A pound of emissions  
14 sitting on the edge of your air basin is very  
15 different than a pound of emissions being emitted  
16 a mile away from your peak receptors or your peak  
17 monitors. So it makes a difference.

18 So what I'm suggesting is that  
19 from a scientific standpoint, it would behoove  
20 the Agency what is causing the problem? What is  
21 causing that 225 or these 200 readings over the  
22 years in Pekin? Is your control plan going to  
23 address that?

24 When we look at controls in --

1 again, when we look at controls in a tradeoff  
2 situation, when I saw that passage and said, well,  
3 they want to trade -- essentially, trade emission  
4 controls at Joliet for those being deferred at  
5 Will County No. 4, the question is that pound of  
6 emissions equal? And it's not. It's not in terms  
7 of the ability of the area to reach attainment.

8           So these are different kinds  
9 of questions than just demonstrating, yes, we  
10 can demonstrate attainment. We want to know are  
11 we doing the best job for the entire area? Are  
12 we going to lower the concentrations in the real  
13 world down to attainment?

14           MS. BUGEL: And are you aware of  
15 the -- there has been testimony about the ultra-low  
16 sulfur diesel requirement in this rulemaking. Have  
17 you heard that testimony?

18           DR. GRAY: Yes.

19           MS. BUGEL: And have you heard the  
20 testimony that that is just a paper reduction?

21           DR. GRAY: Yes.

22           MS. BUGEL: And in cases where there's  
23 a paper reduction, do you have a recommendation as  
24 to modeling actuals?

1 DR. GRAY: Well, again, we want to  
2 model the actuals, try to determine what is -- you  
3 know, I mean, it used to be in the old days  
4 before we could trust our models, we always ran  
5 the models with the actuals first to try to  
6 verify if the model actually reproduced reality,  
7 or came close, and we could use the tools.

8 So again, it's a useful tool  
9 here to model the actuals to determine whether  
10 or not attainment would -- what kind of values  
11 would we get or should we expect to get given  
12 the certain types of etiology, given the actual  
13 emission in addition to the maximum allowables.

14 MS. BUGEL: I have no further  
15 questions.

16 HEARING OFFICER ROBERTSON: Thank  
17 you.

18 I think the Agency has a question.

19 MR. BLOOMBERG: Yes.

20 HEARING OFFICER ROBERTSON: Thank  
21 you.

22 MR. BLOOMBERG: In your discussion  
23 about comparing the real word to the modeling,  
24 are you aware that when Aventine made its initial

1 switch from coal-fired boilers to gas-fired boilers,  
2 the Pekin monitor dropped noticeably?

3 DR. GRAY: I'm not aware of that  
4 at all.

5 MR. BLOOMBERG: Okay. Are you  
6 aware that when they had a fire at one of those  
7 gas boilers and had to go back to coal for a  
8 little while, the monitor picked back up again?

9 DR. GRAY: So obviously, Aventine  
10 was contributing to that location. That seems  
11 like a nice ability to determine that. How much  
12 and, you know, the numbers and everything and  
13 whether there were other sources is also important,  
14 so you found a fingerprint for a source. That's  
15 great.

16 MR. BLOOMBERG: Okay.

17 HEARING OFFICER ROBERTSON: Anyone  
18 else in the audience have any questions for  
19 Dr. Gray?

20 Seeing no one, were there any  
21 other follow-up questions from anyone?

22 I want to thank you, Dr. Gray,  
23 for your time today.

24 DR. GRAY: You're welcome.

1 HEARING OFFICER ROBERTSON: I

2 appreciate it. The Board appreciates it.

3 DR. GRAY: You're welcome.

4 HEARING OFFICER ROBERTSON: Just a  
5 moment. Sorry.

6 (Brief pause.)

7 HEARING OFFICER ROBERTSON: Okay.

8 Thank you, I apologize for that. It's almost  
9 2:00 o'clock now. We're going to take a -- just  
10 another break, a little bit longer, 30 minutes  
11 this time, just for anyone who needs to go and  
12 get anything to eat. Any comments on that?

13 MS. FISHER: I think some folks with  
14 public comments may have to leave before 2:30. Is  
15 it possible to take them quickly?

16 HEARING OFFICER ROBERTSON: Could you  
17 just state your name? I'm sorry.

18 MS. FISHER: I'm sorry. Allison  
19 Fisher.

20 HEARING OFFICER ROBERTSON: Just off  
21 the record quickly.

22 (Whereupon, a discussion  
23 was had off the record.)

24 HEARING OFFICER ROBERTSON: We are

1 just back on the record. We have a couple of  
2 public comments before we take a lunch break. So  
3 I just ask if you could state your name and spell  
4 it and if you could present anyone before you give  
5 your comment and please just use the podium.

6 MR. INMAN: Hello. My name is  
7 Michael Inman, M-I-C-H-A-E-L, I-N-M-A-N, and I am  
8 testifying as a resident of Tazewell County on  
9 behalf of the Central Illinois Healthy Community  
10 Alliance.

11 I'm a student at Pekin Community  
12 High School and an active member of the community  
13 who volunteers a lot of my time towards community  
14 service. While living the last 17 years of my life  
15 in the Pekin area, I have noticed the pollution in  
16 the air caused by ED Edwards and NRG's power and  
17 coal plant has had a negative effects on the people  
18 living in the area.

19 And I don't know if any of are  
20 guys actually from Pekin and looking out in the  
21 audience, I only see about four of us that are  
22 children or younger than probably the age of 20.  
23 So I know that our generation needs this more than  
24 anything because, I mean, it's making it harder

1 for us to breathe here, harder for us to live our  
2 every single day lives. So you shouldn't really,  
3 like, put money up against somebody's life.  
4 That's -- those are not equal thing s.

5 I have family and friends being  
6 some of the people that the pollution affects,  
7 bestowing the greatness that is asthma upon them.  
8 I have friends who recently found out that they  
9 are asthmatic due to all of the pollution in the  
10 air seeping into their lungs. They will be living  
11 with that struggle that brings them for the rest  
12 of their lives.

13 As we seek to find better  
14 protection from coal-fired power plants right  
15 here in Peoria, some of you may know that the  
16 historic Clean Power Plan will be finalized today  
17 by the President and the U.S. Environmental  
18 Protection Agency.

19 The Clean Power Plan is the  
20 most significant single action any president has  
21 ever tackled the most serious threat to health  
22 and our families, the climate crisis.

23 As we struggle to keep our  
24 air clean locally, we want to applaud today's

1 announcement by President Obama and recognize  
2 that now more than ever it is important to move  
3 away from coal.

4 I'm committed to making my  
5 community a thriving healthy place to live today  
6 and for generations to come. Right now, it is  
7 more clear than ever that we must transition away  
8 from coal and embrace clean energy solutions.

9 I am here to ask the Board to  
10 reject the IEPA's draft plan until they come up  
11 with a stronger plan of action. Thank you.

12 HEARING OFFICER ROBERTSON: Thank  
13 you.

14 MS. GARLISH: Hi. I'm Lee Ann  
15 Garlish, L-E-E, A-N-N, G-A-R-L-I-S-H. I'm a senior  
16 at Pekin Community High School. I have been an  
17 asthmatic since I was born and living in this area  
18 and the non-attainment zone hasn't really helped  
19 at all.

20 Although I have the option to  
21 move, you can't really pull your roots out of  
22 somewhere. As an adult, I've decided to focus my  
23 future on making a difference in the world, but I  
24 can't do that if I die of an asthma attack at 17

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1 especially if the quality and possibility of me  
2 having an asthma can change.

3 The future of not just myself,  
4 but this community and the world should count  
5 more than I hefty paycheck. Myself and these  
6 130 plus signatures are asking the Board to reject  
7 the IEPA's draft plan until they can come up with  
8 a stronger more efficient clear air plan. Thank  
9 you.

10 HEARING OFFICER ROBERTSON: Thank  
11 you.

12 Thank you. So I have a stack  
13 of cards that I will enter as a group exhibit.

14 Are there any objections at this  
15 stage?

16 MR. BONEBRAKE: Just for  
17 clarification, will those be entered as comments?

18 HEARING OFFICER ROBERTSON: Just as  
19 a -- as a group exhibit to the transcript.

20 MS. BUGEL: Hearing Officer, I  
21 would object to those being admitted as a group  
22 exhibit. My understanding is that those are cards  
23 offering public comment and I would move for them  
24 to be admitted as, I believe, 131 separate public

1 comments.

2 HEARING OFFICER ROBERTSON: Okay.

3 Again, so we will enter these as public comments.

4 Are there any objections? Seeing  
5 none, thank you.

6 I apologize, Ms. Bugel. Did  
7 you have a comment following Mr. Gray's testimony?  
8 It looks likes you might have had a --

9 MS. BUGEL: No. Thank you.

10 HEARING OFFICER ROBERTSON: Okay.

11 So then seeing no more comments  
12 at this time, I would like to thank you both again  
13 for coming out and giving your comments.

14 We will take a 30-minute lunch  
15 break and when we return, we will have testimony  
16 of the IEPA. Thank you. Let's go off the record.

17 (Whereupon, after a short  
18 break was had, the following  
19 proceedings were held  
20 accordingly.)

21 HEARING OFFICER ROBERTSON: We are  
22 going back on the record now. It is just past --  
23 it's 2:52.

24 Before we continue, I just

1 wanted to note that we did have an additional  
2 card that Mr. Carl -- earlier, that was handed  
3 to us. These cards are going to be taken and  
4 handed to the clerk of the Board and they will  
5 be entered as individual public comments.

6 At this stage, we are going to  
7 move on to Agency testimony. Did the Agency have  
8 any opening statements?

9 MS. VETTERHOFFER: No, we do not.  
10 Mr. Bloomberg will be presenting the testimony and  
11 will be available for questions afterwards.

12 HEARING OFFICER ROBERTSON: Okay.  
13 Thank you.

14 MR. BLOOMBERG: Hello. My name again  
15 is David Bloomberg, B-L-O-O-M-B-E-R-G. I am the  
16 manager of the Air Quality Planning Section at the  
17 Bureau of Air at the Illinois EPA.

18 First, I would like to begin by  
19 apologizing a bit to the Board for getting a little  
20 excited there. I did that because what was being  
21 said indirectly or perhaps directly implied that  
22 the Agency has not been completely transparent  
23 when I know what kind of efforts have been made by  
24 Agency staff such as those with me here today.

1 I know the long hours that have  
2 been spent on this rulemaking. I know the effort  
3 that has gone into it. And I know how hard we  
4 have worked to answer questions and provide any  
5 information that we have been asked for.

6 But throughout this rulemaking  
7 process, the Sierra Club has suggested that the  
8 Agency did not provide them with enough information  
9 to properly assess the modeling. This is simply  
10 untrue.

11 The Agency held a public  
12 outreach in August 2014, a full year ago, which  
13 the Sierra Club attended. The Agency has had  
14 multiple conference calls with the Sierra Club  
15 during which the Agency addressed questions from  
16 the Sierra Club and after which the Agency provided  
17 multiple pieces of information including modeling  
18 files and culpability spreadsheets.

19 As acknowledged by Dr. Gray,  
20 the Sierra Club did not ask for information they  
21 now claim they need during that timeframe, that  
22 earlier timeframe.

23 Even after the Agency answered  
24 such questions, the Sierra Club provided comments

1 at the first hearing suggesting that some of these  
2 were still open questions, yet they failed to  
3 simply ask the questions of the available Agency  
4 witnesses. After further discussions with the  
5 Sierra Club, the Agency provided still more  
6 information and offered the possibility of  
7 providing everything we had available.

8 The Sierra Club failed to take  
9 us up on that offer for the large data files, yet  
10 their witnesses persist in suggesting that the  
11 Agency has somehow been hiding something.

12 Let me state clearly here and  
13 now, we have offered them everything possible.  
14 For the Sierra Club's witnesses to suggest otherwise  
15 is completely unsupported by the facts and is, in  
16 fact, misleading. They never asked us at this  
17 level of detail that has been suggested here today.

18 What Mr. Sahu referenced was  
19 never specifically requested. Whether that's due  
20 to a miscommunication between him and Sierra Club  
21 attorneys can't be judged by the Agency. We can  
22 only speak to what they actually requested.

23 They spoke in generalities in  
24 various conference calls and we offered them

1 everything. We asked if they had specific questions  
2 and they didn't ask for this level of detailed  
3 calculations, which also normally would -- the  
4 Agency normally would not provide in a rulemaking.  
5 It would not be necessary. Instead of pointing  
6 to any issues, any actual issues, they are simply  
7 suggesting that there might be something because  
8 they can't find anything wrong.

9                   With all of our transparency,  
10 them waiting until this date to bring these  
11 concerns, without having asked the specific  
12 questions and requested that specific information,  
13 simply appears to be an effort to throw a wrench  
14 in the process.

15                   I will also address several  
16 other public comments, questions and testimony  
17 presented at this hearing and the second hearing.  
18 Related -- regarding the Powerton 30-day average,  
19 first, there have been several discussions  
20 regarding Powerton's 30-day average. As stated  
21 in the Agency's technical support documents, or  
22 TSD, for this rulemaking and in responses to  
23 questions directed to the Agency, the 30-day  
24 average limit for Midwest generation Powerton

1 units in the proposed amendments was included  
2 because of the potential variability of emissions  
3 when pollution control equipment is installed and  
4 because the installation of this equipment is not  
5 complete at this time.

6 The proposed limitation includes a  
7 downward adjustment in the emission limit from  
8 6,000 pounds per hour to 3,452 pounds per hour  
9 averaged over 30 days. After the Agency confirmed  
10 that this downward adjustment was consistent with  
11 US EPA guidance on the subject, Illinois EPA  
12 submitted supporting calculations to US EPA for  
13 their approval. As previously noted, US EPA  
14 confirmed that this downward adjustment is  
15 consistent with the guidance and is acceptable.

16 However, the Agency has been  
17 asked questions about whether a shorter averaging  
18 time could be used. So I would like to address  
19 those questions. In Appendix D of US EPA guidance  
20 on this subject titled, "Review of Relationships  
21 Among SO2 Emissions Data with Various Averaging  
22 Times," US EPA details its study of different  
23 averaging times for coal-fired EGU's that are  
24 uncontrolled, those controlled by wet scrubbers

1 and those controlled by dry scrubbers.

2           The guidance states, quote, this  
3 review was intended to determine a typical --  
4 sorry -- to determine typical relationships  
5 among emission limits reflecting different  
6 averaging times that might be considered to  
7 comparably stringent.

8           The study indicates that for  
9 typical units with dry scrubber technology, which  
10 is the equipment to be installed at the Powerton  
11 units, a 37 percent reduction from a modeled  
12 one-hour limit would typically be required to  
13 demonstrate the equivalent stringency for a 30-day  
14 average.

15           The guidance suggests that  
16 downward adjustments of this magnitude are  
17 sufficiently protective of the National Ambient  
18 Air Quality Standards or NAAQS.

19           The 30-day average limit for  
20 the Powerton units, in fact, represents an even  
21 greater downward adjustment, 42 percent or  
22 five percent more than that which is noted in  
23 the guidance of being protective.

24           As previously explained by

1 the Agency, this conclusion was reached by US EPA  
2 because the modeling methodology that must be  
3 employed to demonstrate attainment of the standard  
4 is overly conservative in a number of ways.

5 As previously discussed,  
6 because the 30-day average in the proposed  
7 amendments and the downward adjustment in the  
8 emission limit were deemed reasonable by the  
9 Illinois EPA and were approved by US EPA, the  
10 Agency did not calculate an alternate limit  
11 for a different averaging period.

12 However, considering the  
13 questions that have been raised in this proceeding,  
14 the Agency reviewed the guidance and available  
15 Midwest Generation information.

16 The Agency has proposed a 30-day  
17 average limitation, as I mentioned, of 3,452 pounds  
18 per hour for the Powerton units adjusted downward  
19 from the 6,000 pound per hour that was modeled.  
20 This downward adjustment results in an annual  
21 allowable SO<sub>2</sub> reductions of over 11,000 tons per  
22 unit.

23 If the Agency and Midwest  
24 Generation had instead agreed upon a daily average,

1 US EPA guidance suggests that a 19 percent downward  
2 adjustment would have been typical for the type  
3 of controlled equipment in question resulting in  
4 daily average limit of approximately 4,860 pounds  
5 per hour.

6 It should be noted that this  
7 is only an estimate done in the brief period of  
8 time we have had between the second and third  
9 hearings without discussion between the Agency  
10 and Midwest Generation or between the Agency and  
11 US EPA.

12 The Agency is not suggesting  
13 this average can be used in place of the 30-day  
14 average because it is not known whether or not  
15 Midwest Generation could meet this limit and  
16 whether or not it is approvable to US EPA.

17 However, it is interesting to  
18 note that making the same calculations, as I  
19 mentioned a moment ago for the 30-day average,  
20 a downward adjustment for the daily average  
21 limitation would actually result of an increase  
22 of over 6,000 tons per year in allowable emissions  
23 compared to the 30-day average.

24 Further, a daily average would

1 likely be no more effective in preventing the  
2 periods of elevated emissions that have been the  
3 concerns of commenters and interested parties.  
4 US EPA using the statistical methods presented  
5 in the guidance suggests that all of these limits,  
6 whether hourly, daily average or 30-day average,  
7 are of comparable stringency.

8 Powerton's 30-day average  
9 emission limitation is there for comparably  
10 stringent to a one-hour average and results in  
11 lower allowable annual emissions which will  
12 then provide additional benefits -- environmental  
13 benefit for air quality in the long-term and for  
14 air quality planning efforts dealing with PM 2.5  
15 or fine particulate matter transport and regional  
16 haze.

17 With all of this in mind, the  
18 Board -- the Agency, once again, encourages the  
19 Board to use the proposed 30-day average for  
20 Powerton. Attempting to modify that average  
21 without taking into account all of the variable  
22 risks -- sorry -- all of the variables, risks  
23 placing the Powerton source in a position of  
24 being unable to comply while accomplishing no

1 actual environmental benefit.

2 Furthermore, it is unknown at  
3 this point whether US EPA would approve any new  
4 limit without further discussion and evaluation  
5 on their part.

6 To reiterate, modeling with a  
7 30-day average has demonstrated attainment of  
8 the NAAQS, which even Mr. Sahu had noted in his  
9 pre-filed testimony is the purpose of this  
10 rulemaking.

11 The next topic I would like to  
12 discuss, Will County 4. For Will County 4, there  
13 had been discussions regarding the FGD exemption  
14 that has been proposed. The Agency's proposed  
15 amendments to the combined pollutant standard,  
16 or CPS, as detailed in the Agency's TSD result in  
17 significant reductions of SO<sub>2</sub> in the state beyond  
18 existing requirements in the CPS and even provide  
19 reductions beyond those required to bring the two  
20 non-attainment areas into attainment with the 2010  
21 one-hour SO<sub>2</sub> NAAQS and also beyond what would be  
22 attainable under any normal operating conditions  
23 by use of add-on controls such as Trona for those  
24 sources.

1                   The amendments will additionally  
2 result in significant reductions in the emissions  
3 NOx -- sorry -- oxides and nitrogen, or NOx,  
4 particulate matter or P.M., Mercury, and  
5 greenhouse gasses that would otherwise not have  
6 been attainable by simply using controls of  
7 those units.

8                   As stated in the Agency's TSD,  
9 the Agency conservatively estimates that the  
10 emission reductions of NOx from the conversion  
11 of the Joliet and Will County units will be  
12 greater than 3,000 tons annually.

13                   Additionally, the Agency can  
14 conservatively estimate that the proposed amendments  
15 will result in emission reductions of more than  
16 7.5 million tons of CO2, more than 1,900 tons of  
17 P.M. and 400 pounds of Mercury annually. These  
18 reductions will greatly aid Illinois in its efforts  
19 to reduce overall air pollution and in planning for  
20 upcoming or just released federal greenhouse gas  
21 rules, revised ozone standards, pollutant interstate  
22 transport rules, regional haze requirements and  
23 other future planning efforts.

24                   Midwest Generation came to the

1 Illinois EPA to voluntarily propose this package  
2 unit conversions and emission reductions. They  
3 were under no obligation to stop using coal at  
4 the three Joliet units or Will County 3.

5 The one request that they had  
6 was to change the FGD exemption from Joliet 6 to  
7 Will County 4. If the Agency had determined that  
8 further emission reductions at Will County 4 were  
9 necessary to bring the area into attainment, the  
10 Agency would not have agreed to such an exemption,  
11 but the fact is that modeling has demonstrated  
12 that Midwest Generation does not need to add a  
13 multi-million dollar control device to Will  
14 County 4 in order to bring the area into attainment  
15 as even agreed to by Sierra Club's witness.

16 Even without a controlled device  
17 at Will County 4, the cessation of coal combustion  
18 at Will County 3 will result in annual reductions  
19 of at least 3,100 tons of SO<sub>2</sub> from the same source  
20 when compared to emissions in 2014.

21 Under the Agency's proposal a  
22 combination of allowable SO<sub>2</sub> emissions from the  
23 Will County source alone was over 1,200 tons  
24 lower than it would be in the year 2017 under the

1 CPS fleet-wide limits alone.

2                   And these estimates are  
3 conservative as they assume that Midwest  
4 Generation will be operating Will County 3 and  
5 it would be burning diesel fuel as opposed to  
6 natural gas or a combination of diesel and  
7 natural gas.

8                   Midwest Generation has advised  
9 the Agency, however, it is not currently operating  
10 Will County 3 and has not announced any plans to  
11 operate that unit. Midwest Generation simply  
12 needs to retain the possibility of operating the  
13 unit in the future should it become necessary.

14                   It should be noted that the plan  
15 conversions and retirements of Midwest Generation  
16 are not yet required in Illinois regulations, but  
17 have only been announced by Midwest Generation.  
18 It is these proposed amendments -- it is in these  
19 proposed amendments that the requirements will be  
20 codified for these four EGU's to permanently cease  
21 burning coal.

22                   Illinois EPA has proposed the  
23 amendments to Part 225 in their current form in  
24 order to ensure that the significant reductions

1 from these fuel conversions in all pollutants will  
2 be permanent and enforceable.

3 A very important point to note  
4 here is that even though the Sierra Club argued  
5 that Will County 4 supposedly needs a control  
6 device, as I mentioned, the Sierra Club's own  
7 witness has proven the point that Will County 4  
8 does not actually need controls.

9 When Mr. Gray cited the peak  
10 receptor had noted that the receptor is in  
11 attainment in the modeling, he talked about  
12 Will County 4's contribution to this receptor,  
13 but if Will County 4 is contributing at its  
14 maximum allowable without controls and this  
15 peak receptor is still in attainment, that  
16 reinforces the Agency's position, no controls  
17 are necessary on Will County 4 to reach attainment.

18 As such, if a control is  
19 mandated for Will County 4, the Board would be  
20 requiring multi-million dollar controls that  
21 are not necessary for the area to reach attainment.

22 Furthermore, even as Mr. Gray  
23 argued that Will County 4 needed additional  
24 control before he later admitted that they didn't,

1 he showed that they -- that he didn't actually  
2 understand the information he was presenting. He  
3 discussed the contribution of Will County 3 and  
4 Joliet 6, 7, 8 without apparently realizing the  
5 model had already taken into account their planned  
6 conversion to no longer combust coal. That is  
7 the reason those units now contribute so little  
8 to the receptor because Midwest Generation's  
9 planned projects have already been accounted  
10 for in the modeling attainment.

11 It should also be noted that  
12 the Agency has incorporated the proposed changes  
13 to Part 225 into its proposed reversions to  
14 Section 214.603. The hourly emission rate proposed  
15 for Joliet 6, 7 and 8 and Will County 3 reflect  
16 the conversion of the units to natural gas or  
17 diesel fuel and the proposed limits for Will  
18 County 4 reflects the exemption from the FGD  
19 equipment.

20 The proposed changes to Part 225  
21 are, therefore, inextricably linked to the Agency's  
22 proposed changes to Part 214 and, in turn, its plan  
23 to attain the SO2 NAAQS.

24 The next topic is ultra-low

1 sulfur diesel. In his testimony, Mr. Sahu made  
2 the claim that sulfur content in diesel fuel,  
3 quote, fluctuates. By this, he implied that we  
4 will never really know how much SO2 is being  
5 emitted by sources using ultra-low sulfur diesel  
6 and that emission limitations for these sources  
7 should be included in the rule.

8                   However, in discussions with  
9 people in the petroleum refinery industry and  
10 with the bureau chief for weights and measures  
11 of the Illinois Department of Agricultural, who  
12 is responsible for the quality of rules in Illinois,  
13 I have found this suggestion to be extremely  
14 misleading.

15                   As I mentioned at the second  
16 hearing, whatever fluctuation there may be in  
17 sulfur content in diesel fuel is in the downward  
18 direction. That is lower than 15 ppm. The Motor  
19 Fuels and Petroleum Standards Act in Illinois  
20 requires that all fuels sold in Illinois meet  
21 ASTM specifications.

22                   In other words, there are  
23 additional regulations mandated that the seller  
24 represents it's distributing ultra-low sulfur

1 diesel, the fuel must be at or below 15 ppm sulfur  
2 content.

3           Industry personnel have further  
4 told me that refineries are even more conservative  
5 to ensure the sulfur content is well below the  
6 standard. The Department of Agriculture tests  
7 for sulfur content throughout the state, generally  
8 at the fuel dispenser location. I spoke with the  
9 bureau chief, as I mentioned, who indicated that  
10 to his recollection he has never noticed any issues  
11 with sulfur content in diesel fuels.

12           What this means is that while  
13 we might not know if the sulfur content of  
14 mandated ultra-low sulfur diesel is exactly 15  
15 or 14 or even ten, we do know what the maximum  
16 is per the regulation, 15 ppm. That means all  
17 calculations done in the Agency's modeling for  
18 sources using ultra-low sulfur diesel have been  
19 overly conservative and likely overestimated  
20 the SO2 emissions just as the Agency has modeled  
21 all sources at their maximum emission rates,  
22 their maximum allowable emission rates.

23           This eliminates any concerns  
24 that Mr. Sahu may have raised through his

1 suggestion that the Agency doesn't really know  
2 what the sulfur content may be.

3                   Now, I would like to address  
4 the topic of the attainment demonstration, which  
5 the Sierra Club's witnesses have, in effect,  
6 suggested should be a part of this rulemaking  
7 process. Contrary to those assertions, the  
8 attainment demonstration should not, and for all  
9 practicable purposes, cannot be included in this  
10 rulemaking process.

11                   Generally, the Agency proposes  
12 a rule to the Board first normally after having  
13 run a draft by US EPA to ensure they approve of  
14 the changes. Then after the status of the rule  
15 becomes clearer, usually after the rule is adopted  
16 by the Board, but at least after the Board has  
17 adopted a final order and proceeded to a second  
18 notice, the Agency may proceed with an attainment  
19 demonstration if one is appropriate at that time.

20                   The attainment demonstration  
21 then takes the limitations and control requirements  
22 adopted by the Board in a rulemaking or in some  
23 cases in several rulemakings, analyzes those  
24 requirements and demonstrates to US EPA that they

1 are sufficient to demonstrate attainment of the  
2 NAAQS.

3 The Agency holds a 30-day  
4 public notice and public comment period and,  
5 if requested, a separate Agency hearing on the  
6 attainment demonstration.

7 At that point, the public may  
8 provide comments to the Agency about anything  
9 and everything within the demonstration including  
10 every aspect of the Agency's modeling. Once the  
11 Agency has finalized the attainment demonstration,  
12 it submits the demonstration and a summary of any  
13 public comment the Agency has received to US EPA  
14 for approval.

15 US EPA then goes through its  
16 own public comment period during which the public  
17 may again submit comments regarding the Agency's  
18 modeling. There is clearly ample opportunity for  
19 anyone who would like to examine and comment upon  
20 the Agency's modeling.

21 This is the process the Agency  
22 has historically used and that the Agency continues  
23 to use. As a final attainment demonstration must  
24 include final enforceable requirements, it is not

1     advisable for the Agency to put the draft attainment  
2     demonstration out for public comment before it knows  
3     with reasonably certainty the emission limitations  
4     and control requirements that will be adopted by  
5     the Board in the underlying rulemaking.

6                     The Agency would run the risk  
7     that its rulemaking proposal would be changed by  
8     the Board which could necessitate changing  
9     attainment demonstration and restarting public  
10    notice and comments. For practical purposes and  
11    from the standpoint of conserving Agency resources,  
12    the rule must come first and the attainment  
13    demonstration must come second.

14                    In my over 23 years of experience  
15    at the Agency, which is including participation in  
16    a multitude of rulemakings, the Board regularly  
17    relies upon the Agency for extremely technical  
18    matters such as air modeling. While this rulemaking  
19    and attainment demonstration are certainly linked,  
20    just are all of our efforts to reduce air pollution  
21    in Illinois, they are separate facets of the  
22    process that ends with bringing an area into  
23    attainment.

24                    Several other topics that

1 have come up through testimony, comments or  
2 questions and I would like to address them now  
3 as well. In Mr. Gray's pre-filed testimony, he  
4 claims that using a different set of sources  
5 and/or controls may demonstrate attainment at  
6 a lower cost. For the record, no source has  
7 contacted me, Jeff, Rory, Jackie or Dana to  
8 state that they are unhappy with the costs for  
9 this rulemaking.

10 In another comment the group  
11 Care, who I don't believe is represented here  
12 today, but mentioned at the second hearing that  
13 they would be submitting the Agency's TSD for the  
14 non-attainment area designation recommendations.  
15 However, it should be noted that the document  
16 they are referencing as Jeff mentioned in response  
17 at the last -- at the second hearing did not use  
18 modeling and, thus, did not include all culpable  
19 sources in its discussion.

20 While the designation of these  
21 areas of non-attainment is certainly linked to  
22 the Agency's regulations to bring them into  
23 attainment. Designation is the a different process  
24 with different requirements as compared to the

1 extensive modeling work necessary to determine  
2 which sources need to reduce their emissions  
3 and by how much.

4 That document in process from  
5 several years ago certainly did not involve the  
6 many months of effort that went into the highly  
7 detailed modeling to determine which sources need  
8 to reduce their limits and by how much.

9 There were two commenters at  
10 the second hearing, I believe one of whom is here,  
11 who brought up the topic of reasonably available  
12 control technology, or RACT, and reasonably  
13 available control measures, or RACM. Unfortunately,  
14 both commenters misunderstand the requirements for  
15 RACT and RACM for this rulemaking.

16 This was discussed in the  
17 Agency's statements of reasons, but apparently  
18 bears repeating. US EPA interprets RACT and RACM  
19 differently for the purposes of sources subject  
20 to RACT only under Subpart 1 and those subject  
21 to RACT under a different subpart of Title 1,  
22 Part D of the Clean Air Act.

23 Rather than describing specific  
24 control systems to be used to address the necessary

1 SO2 reductions, the US EPA has interpreted the  
2 terms RACT and RACM for purposes of  
3 Section 172(c)(1) requirements as, quote, the  
4 level of emissions control that is necessary to  
5 provide for expeditious attainment of the NAAQS  
6 within a non-attainment area.

7 US EPA further noted, quote,  
8 courts have upheld this interpretation of the  
9 statute with respect to non-attainment SIPS, end  
10 quote. And that is what the Agency has proposed  
11 in this rulemaking, a level of emissions control --  
12 sorry -- levels of emissions control that are  
13 necessary to provide for attainment of the NAAQS.

14 Finally, at both the first and  
15 second hearing and also when we had some comments  
16 today at the third hearing, a number of people  
17 commented regarding their beliefs as to how SO2  
18 from specific sources discussed here contributed  
19 to, or perhaps even caused, breathing problems  
20 such as asthma with some even suggesting this has  
21 been a potential reason for increase in asthma  
22 cases.

23 One person said we need to put  
24 a face on this. Well, I need to add something.

1 This is my rescue inhaler (indicating). I am the  
2 face of asthma. My mother has asthma. My kids  
3 have asthma. I have had to hold my kids with  
4 the nebulizer. I know what it's like. I do  
5 not -- I cannot just brush away what these  
6 comments have been. I understand. But we can't  
7 speculate what may have caused asthma in any  
8 particular cases.

9 What isn't speculation is that  
10 the US EPA has determined that the National Ambient  
11 Air Quality Standards, or NAAQS, are based upon  
12 science and the Agency is endeavoring to bring  
13 these areas into attainment with the NAAQS.

14 We also can be certain of  
15 another aspect of our air quality. Contrary to  
16 comments suggesting that air quality has been  
17 getting course, in fact, the monitor data shows  
18 exactly the opposite. I have here with me, and  
19 will offer as exhibit to the Board, graphs  
20 showing decreases in annual average monitored SO2  
21 concentrations at both Lemont and Pekin monitors.

22 These decreases are expected to  
23 continue due to reductions being mandated in this  
24 rulemaking including the cessation of coal burning

1 at the three Joliet units and the Will County 3  
2 units. Thank you.

3 MS. VETTERHOFFER: And I would  
4 just like to -- this is Dana Vetterhoffer with  
5 the Illinois EPA.

6 I would like to move that the  
7 two charts referenced by Mr. Bloomberg be moved  
8 into the record as an exhibit and I do have  
9 extra -- some extra copies just not enough for  
10 everybody in the room.

11 HEARING OFFICER ROBERTSON: I'm  
12 sorry. Did you say -- are those one exhibit or  
13 separate exhibits?

14 MS. VETTERHOFFER: It's up to you  
15 how you mark them. There's one chart for Lemont  
16 SO2 annual averages and one for Pekin SO2 annual  
17 averages. It's two separate charts though.

18 HEARING OFFICER ROBERTSON: Are there  
19 any objections to entering those charts as exhibits  
20 at this time?

21 MS. GARLISH: I'm Robin Garlish,  
22 R-O-B-I-N, G-A-R-L-I-S-H. I just wanted to know  
23 again the dates. I didn't hear the dates of the  
24 Pekin monitoring.

1 MR. BLOOMBERG: The dates for these  
2 charts start in 1983 and go up through 2014.

3 MS. GARLISH: 2014. Okay. Thank  
4 you.

5 HEARING OFFICER ROBERTSON: Seeing  
6 no objections, we are going to enter the Lemont  
7 SO2 annual averages 1983 to 2014 chart as Agency  
8 Exhibit H.

9 (Document marked as Agency  
10 Exhibit H for identification,  
11 8/4/15.)

12 HEARING OFFICER ROBERTSON: And the  
13 Pekin SO2 annual average 1983 to 2014 chart as  
14 Agency Exhibit I.

15 (Document marked as Agency  
16 Exhibit I for identification,  
17 8/4/15.)

18 HEARING OFFICER ROBERTSON: Is there  
19 any additional testimony from the Agency?

20 MS. VETTERHOFFER: No. Thank you.

21 HEARING OFFICER ROBERTSON: Okay.  
22 Thank you, Mr. Bloomberg, for your time.

23 I do know that the Board did  
24 yesterday issue additional Board questions.

1                   Before we get to those, are  
2 there any questions? Ms. Bugel, do you have any  
3 follow-up questions?

4                   MS. BUGEL: I may just have one or  
5 two questions.

6                   And the -- my first question  
7 is are there any sources for which reductions  
8 were modeled, but the rule -- but there are no  
9 reductions required by the rule?

10                  MR. BLOOMBERG: If reductions were  
11 modeled, then those reductions are either reflected  
12 in Subpart A of the rule, specific limits. They  
13 were modeled because we are putting in the ultra-low  
14 sulfur diesel limits, so those are effectively in  
15 the rule, or I believe there were one or two sources  
16 that came in kind of during the modeling process  
17 and got a TSD permit that -- a construction permit,  
18 an enforceable construction permit, that limited  
19 their emissions such that it was already done  
20 before the rule came out. So it wasn't necessary  
21 to put it in the rule as well.

22                  MS. BUGEL: And one additional  
23 question is would the Agency consider a -- not  
24 a different averaging time for Powerton, but a

1 supplemental limit in addition to the 3,452 pounds  
2 per hour over the 30-day average? And by a  
3 supplemental limit, I mean a limit on either the  
4 magnitude or the frequency of spikes.

5 MR. BLOOMBERG: You ask if we would  
6 consider it and I think the answer is we're open  
7 to considering, you know, anything reasonable.

8 At this stage, and without a  
9 requirement that it be done, it is difficult to  
10 answer that question. You know, it's -- I don't  
11 know what would be suggested. I don't know --  
12 you know, it would entail numerous conversations,  
13 calculations and it would be to no real end when  
14 it comes to bringing the area into attainment.

15 As I mentioned, the US EPA  
16 has already said that the 30-day average is  
17 substantially equivalent and they have already  
18 reviewed it and said that is acceptable. So  
19 it would be a requirement being put on the source  
20 that I can't give a solid legal reason for.

21 MS. BUGEL: Those are all the  
22 questions that I have.

23 HEARING OFFICER ROBERTSON: Thank  
24 you.

1 Mr. Bonebrake?

2 MR. BONEBRAKE: I have a couple of  
3 additional questions.

4 I seem to be struggling with the  
5 microphone here.

6 First, with respect to the new  
7 charts that were admitted as Agency Exhibits H and  
8 I, I just wanted to confirm were the data points  
9 for these charts the attainment monitors in those  
10 respective areas?

11 MR. BLOOMBERG: They were the  
12 monitors from which the non-attainment areas were  
13 based.

14 MR. BONEBRAKE: Thank you. When I  
15 was listening to your testimony, Mr. Bloomberg,  
16 it occurred to me that it was important that we  
17 think about why we are here today.

18 What is the purpose of this  
19 rulemaking from the IEPA's perspective?

20 MR. BLOOMBERG: This rulemaking  
21 is to bring the two non-attainment areas into  
22 attainment with the one-hour SO2 NAAQS.

23 MR. BONEBRAKE: And when the US EPA  
24 adopts a National Ambient Air Quality Standard

1 like the new one-hour standard, does it have health  
2 protection in mind in adopting that standard?

3 MR. BLOOMBERG: Yes.

4 MR. BONEBRAKE: And what health  
5 considerations does US EPA take into account  
6 in adopting National Ambient Air Quality Standards?

7 MR. BLOOMBERG: I mean, it's a wide  
8 variety. It's everything from its effect on  
9 healthy individuals to its effect on sensitive  
10 populations. In some pollutants cases, it's also  
11 secondary effects on whether it's animals or plants  
12 or other things like that.

13 MR. BONEBRAKE: And with respect to  
14 the new one-hour SO2 standard, is that standard  
15 designed to be protective of human health with a  
16 margin of safety?

17 MR. BLOOMBERG: Yes.

18 MR. BONEBRAKE: And is it correct  
19 that IEPA believes based upon extensive analyses  
20 in modeling, in this case, that its proposed rules  
21 will attain the one-hour SO2 National Ambient Air  
22 Quality Standard in the Pekin and Lemont areas  
23 and, therefore, providing for human health with  
24 an adequate margin of safety?

1 MR. BLOOMBERG: Yes.

2 MR. BONEBRAKE: I had asked Mr. Sahu a  
3 question about the -- whether or not startup,  
4 shutdown and malfunction events were counted  
5 against the proposed rates in Section 214.603  
6 of the rule and just so the record is clear,  
7 let me ask you, Mr. Bloomberg; is it true that  
8 the proposed emission rates in Section 214.603  
9 apply to all hours of unit operation?

10 MR. BLOOMBERG: Yes.

11 MR. BONEBRAKE: And it is correct,  
12 as a matter of fact, that units can experience  
13 higher emissions during periods of startup and  
14 shutdown during normal operation?

15 MR. BLOOMBERG: Some units can, yes.

16 MR. BONEBRAKE: Is it also true that  
17 units can experience higher hourly emission rates  
18 during periods of pollution control malfunction  
19 during normal operation?

20 MR. BLOOMBERG: Yes.

21 MR. BONEBRAKE: And does the 30-day  
22 rolling average rate take into consideration then  
23 the variability that can be caused by the inclusion  
24 of SSM periods against the standard?

1 MR. BLOOMBERG: Yes.

2 MR. BONEBRAKE: At a prior hearing,  
3 a commenter suggested that with a 30-day rolling  
4 average, Powerton could simply operate for a day  
5 and then cease operating for 29 days and then if  
6 the rates were high in the one day of operation,  
7 it simply could be washed out, as I understood  
8 the commenter to say, by the 29 days of  
9 non-operation. Is that correct under the proposed  
10 rule?

11 MR. BLOOMBERG: No. That seems to  
12 be a misunderstanding by the commenters -- on the  
13 part of the commenters. It is an average over 30  
14 operating days.

15 MR. BONEBRAKE: Now, you mentioned  
16 I believe, Mr. Bloomberg, that the proposed  
17 conversions from the Joliet units from coal to  
18 gas and the cessation of coal combustion at Will  
19 County 3 provided the state with significant  
20 reductions in pollutants other than SO<sub>2</sub>; is that  
21 correct?

22 MR. BLOOMBERG: Yes.

23 MR. BONEBRAKE: And that includes  
24 particulate matters and carbon dioxide and I

1 believe you mentioned Mercury as well; is that  
2 correct?

3 MR. BLOOMBERG: Yes.

4 MR. BONEBRAKE: And did US EPA  
5 just finalize a carbon dioxide control rule  
6 yesterday?

7 MR. BLOOMBERG: Yes.

8 MR. BONEBRAKE: And does IEPA  
9 anticipate that the conversions of the Joliet  
10 units from coal to gas and cessation of coal  
11 combustion in Will County 3 could assist the  
12 state of Illinois with developing its plan for  
13 complying with that new federal CO2 requirement?

14 MR. BLOOMBERG: While I'm not  
15 personally working directly on that, my  
16 understanding is the answer is yes.

17 MR. BONEBRAKE: Is it true,  
18 Mr. Bloomberg, that Midwest Generation voluntarily  
19 proposed to cease coal combustion at the four units  
20 you mentioned, that is, the three Joliet units and  
21 Will County 3?

22 MR. BLOOMBERG: Yes.

23 MR. BONEBRAKE: And it was under no  
24 obligation to cease coal combustion at those four

1 units; is that correct?

2 MR. BLOOMBERG: It is correct they  
3 were under no obligation.

4 MR. BONEBRAKE: And it was with the  
5 understanding -- strike that.

6 As you noted, Midwest Generation  
7 made one request and that is to switch the FGD  
8 exemption from Joliet 6 to Will County 4 in  
9 connection with the proposal to cease combustion  
10 at the other four units; is that correct?

11 MR. BLOOMBERG: Yes.

12 MR. BONEBRAKE: And the net results  
13 of the cessation of coal combustion of the four  
14 units and the switch of the FGD exemption is a  
15 decrease of SO2 emissions from the proposed rule  
16 above and beyond what would have been required by  
17 the CPS; is that correct?

18 MR. BLOOMBERG: Yes.

19 MR. BONEBRAKE: Do you agree with me,  
20 Mr. Bloomberg, that if the final rule, as adopted,  
21 would force the conversion -- strike that -- would  
22 force the cessation of coal combustion at the four  
23 units, that is, the three Joliet and Will County 3,  
24 but still retain a requirement to install FGD at

1 Will County 4, that that would be inconsistent with  
2 the proposal that Midwest Generation had made?

3 MR. BLOOMBERG: Yes.

4 MR. BONEBRAKE: Do you agree with  
5 me that cherry picking out requirements for coal  
6 combustion cessation and then putting those in  
7 the rule but rejecting the exemption for the Will  
8 County 4 FGD could have a chilling effect on both  
9 on Midwest Generation and other sources' willingness  
10 to offer up voluntary emission reductions to  
11 IEPA in connection with future rulemakings?

12 MR. BLOOMBERG: Yes. I could see  
13 how companies would be hesitant to come to the  
14 Agency in the future with that -- with a proposed  
15 plan with that in the back of their minds.

16 MR. BONEBRAKE: Thank you. I have  
17 no further questions at that time.

18 HEARING OFFICER ROBERTSON: Thank  
19 you.

20 Mrs. Allgire?

21 MS. ALLGIRE: We have no questions.

22 HEARING OFFICER ROBERTSON: At this  
23 point, I will open it up. Do any members of the  
24 audience have any questions for Mr. Bloomberg?

1                   Yes, sir. If you don't mind,  
2 step to the microphone. Thank you. Please just  
3 state and spell your name. Thank you.

4                   MR. CASHMER: My name is Kevin  
5 Cashmer, K-E-V-I-N, C-A-S-H-M-E-R. Am I correct,  
6 Mr. Bloomberg, in understanding that there have  
7 been health studies done specifically in this  
8 area?

9                   MR. BLOOMBERG: I am unaware of  
10 any specific health studies done in this area.

11                   MR. CASHMER: Okay. With the  
12 question of transparency, is there any reason why  
13 with current technology, monitors cannot be placed  
14 on point specific emissions to where they are WiFi  
15 capable to where everybody can see specifically  
16 what's going on at what point?

17                   MR. BLOOMBERG: Are you talking  
18 about emissions monitors or ambient air monitors?

19                   MR. CASHMER: Emissions.

20                   MR. BLOOMBERG: Emissions monitoring,  
21 for example, at the power plants is the already  
22 done on a continuous basis. They are uploaded --  
23 that information is directly uploaded to US EPA's  
24 database. I see no reason that the public wouldn't

1 be able to access that information. That's how we  
2 access it.

3 MR. CASHMER: Okay. Accuracy is the  
4 question. Thank you.

5 HEARING OFFICER ROBERTSON: Thank  
6 you.

7 Are there any additional questions  
8 for Mr. Bloomberg?

9 Seeing no questions from the  
10 audience, I believe the Board has a question.

11 BOARD MEMBER BURKE: Mr. Bloomberg,  
12 earlier today you mentioned that at the Aventine  
13 facility, they converted to natural gas at some  
14 point and then had a fire where they had to go  
15 back to coal for a time. I was wondering if you  
16 could describe that situation again.

17 MR. BLOOMBERG: That pretty well  
18 does summarize it. They came to us and said  
19 we're going to convert to natural gas. We know,  
20 you know, you're looking at this monitor and  
21 we're going to need to do some things and so  
22 they are -- converted their coal-fired boilers to  
23 natural gas.

24 At some point, there was some

1 sort of incident, a fire -- it might have been a  
2 small explosion. I'm not entirely sure of all  
3 of the details. Whatever happened, it made at  
4 least one of the natural gas boilers not usable.  
5 So they had to switch back to using the coal-fired  
6 for a time and they fully intend and they  
7 understand that they need to be completely out  
8 of the coal-fired business by January 1, 2017.

9 BOARD MEMBER BURKE: And then just  
10 to clarify for the record, the Aventine facility  
11 is located in Pekin township, correct.

12 MR. BLOOMBERG: I believe so, yes.

13 BOARD MEMBER BURKE: And it would be  
14 located in the Pekin non-attainment area?

15 MR. BLOOMBERG: Definitely.

16 BOARD MEMBER BURKE: And is that  
17 reflected in the chart you just gave us marked as  
18 Agency Exhibit I?

19 MR. BLOOMBERG: It looks -- it might  
20 be part of that last little downward move there in  
21 2014, but it was -- the change was pretty recent.  
22 I don't remember exactly when, but it's within the  
23 last year, year-and-a-half maybe, but they have  
24 been making the switch. So it may be somewhat

1 reflected in that last little bit downwards there.

2 BOARD MEMBER BURKE: Okay. Thank  
3 you.

4 MR. RAO: Mr. Bloomberg, I have  
5 a question for you. Dr. Sahu referred to possibly  
6 the spreadsheets in his testimony and we have not  
7 seen those in the record earlier. I just wanted  
8 to confirm whether those were part of the new  
9 information that you submitted to the Board?

10 MR. BLOOMBERG: Yes.

11 MR. RAO: Okay.

12 MR. BLOOMBERG: Mr. Robertson, did  
13 you want to go over the --

14 HEARING OFFICER ROBERTSON: I was  
15 going to just ask does the Agency wish to respond  
16 to any of these questions today?

17 MR. BLOOMBERG: We can respond to  
18 a few of them. Most of them will need more time.  
19 As you know, they are extremely detailed and we  
20 only saw them late yesterday afternoon.

21 I can give some response to  
22 Question 63. Whatever I say here, by the way,  
23 we will probably go into more detail in a written  
24 response, but I at least wanted to give some

1 response.

2 Do you want me to read the  
3 question or can we --

4 HEARING OFFICER ROBERTSON: If you  
5 don't mind. I know it's a lengthy question. Thank  
6 you.

7 MR. BLOOMBERG: I'm getting used  
8 to reading questions.

9 In response to Question 47  
10 regarding Midwest Generation's reasoning for  
11 requesting the switch from Joliet 6 to Will County  
12 4 for an exemption to install FGD equipment, IEPA  
13 states that, quote, Midwest Generation is  
14 contributing a great deal of SO2 reductions as  
15 well as reductions in other pollutants for the  
16 area for its overall plan to switch four units  
17 from burning coal to burning primarily natural  
18 again.

19 Since Midwest Generation is  
20 going far beyond FGD in making these changes  
21 and since the company is expending more resources  
22 than anticipated in doing so, Midwest Generation  
23 requests that the exemption be changed to a  
24 different unit, end quote, PC 5 at 8.

1                   Comment on whether IEPA's  
2 proposed changes to Part 217 and Part 225 could be  
3 taken up at a separate proceeding before the  
4 Board such as a rulemaking adjusted standard  
5 or variance proceeding.

6                   The short answer to IEPA's  
7 position would be no. As I mentioned a little  
8 while ago, these are inexplicably linked. For  
9 example, the coal -- the cessation of coal burning  
10 is prescribed in Part 225. The limit appears in  
11 214. The conversion is discussed in Part 217.  
12 Subpart (a)(a) includes limits that rely on these  
13 on these conversions and they reflect that the  
14 FGD would no longer be required.

15                   So that's my short answer to  
16 that. As I said, we can give more or if you have  
17 any follow-up questions right now.

18                   Okay. I can also discuss some  
19 of --

20                   HEARING OFFICER ROBERTSON: Just a  
21 moment.

22                   MR. BLOOMBERG: Okay.

23                   HEARING OFFICER ROBERTSON: You can  
24 continue. Thank you.

1 MR. BLOOMBERG: Questions 64, I can  
2 give some answer to as well. That question stated:  
3 "Referring to the above-quoted language, provide  
4 additional information, including quantifying  
5 emissions, regarding the collateral benefits of  
6 reductions of other pollutants through Midwest  
7 Generation's proposal to cease using coal at  
8 Joliet 6, 7 and 8 and Will County 3."

9 And this I actually discussed  
10 in my testimony. If you would like, I can repeat  
11 it or -- but basically, as mentioned, there would  
12 be a conservative estimate of over 3,000 tons of  
13 NAAQS reduced, a conservative estimate of over  
14 7.5 million tons of CO2, more than 1,900 tons of  
15 particulate matter and 400 pounds of Mercury  
16 annually.

17 The next question that I can  
18 address somewhat is 67, which has four parts.  
19 So it says, "IEPA's proposed language at 35 Illinois  
20 Administrative Code 225.296 B provides:" Do you  
21 need me to reread what that says?

22 HEARING OFFICER ROBERTSON: I think  
23 that's okay. Thank you.

24 MR. BLOOMBERG: Okay.

1                   "a. Address whether the proposed  
2 revision to this section are necessary for making  
3 the attainment demonstration for the one-hour  
4 SO2 NAAQS or if the limitation in proposed  
5 35 Illinois Administrative Code Part 214 are  
6 sufficient."

7                   As I mentioned a couple of  
8 minutes ago, they are linked. Part -- the limits  
9 in Part 214 reflects what is in Part 225.

10                   For b, "In particular, if Will  
11 County 4 does not receive the FGD exemption,  
12 address whether fuel conversions at the other  
13 facilities are necessary to demonstrate attainment."

14                   They would not be necessary to  
15 convert, but they would definitely need some sort  
16 of control. We don't know how much control exactly  
17 because we haven't modeled those scenarios and,  
18 quite frankly, there isn't time to do so. I'm  
19 not sure if we've ever spoken about how much time  
20 it takes to run one of these models, but every  
21 scenario, every change that we have made, takes  
22 approximately one week of time just for the  
23 computers to go. We're using some of the fastest  
24 computers, you know, biggest computers that we

1 can get.

2                   So there simply isn't the time  
3 to go through and -- at this stage pick and  
4 choose what would happen if we adjusted this  
5 one by five percent here or something like  
6 that.

7                   And we didn't model those  
8 specifically because we had the proposal from  
9 Midwest Generation to eliminate coal combustion  
10 at those units. So there was no need to go in  
11 and say what would happen at different reduction  
12 points. We believe we knew what was going to  
13 happen.

14                   c, "Comment on the Board amending  
15 the proposal that second notice to not propose  
16 the change in the parenthetical in this section.  
17 In other words, comment on the Board not making  
18 the following change." Which basically replaces  
19 Joliet 5 with Will County 4 for the exception.

20                   Clearly, the Agency opposes such  
21 a change. We can detail it more in comments, but  
22 I think it's been clear here that we are in favor  
23 of exempting Will County 4.

24                   D, "Address whether the emission

1 limitations in proposed Section 214.603 would need  
2 to be revised if Will County 3 and Joliet 6, 7, 8  
3 did not cease burning coal and Will County 4  
4 installed FGD."

5                   The answer is, yes. Actually,  
6 it would bring a total set of numbers into  
7 play. It would involve a lot of this modeling,  
8 this multi-iteration modeling that I was talking  
9 about and it would not only impact Midwest  
10 Generation.

11                   As we mentioned, when we were  
12 doing these iterations, we looked at what sources  
13 were most impacting an area or -- I'm sorry --  
14 the receptors as whatever came up as highest  
15 receptors before we brought it into attainment.  
16 It may be that some other source was equally or  
17 more impacting some receptor in the model as Will  
18 County 3 or Joliet 6, 7 and 8, but because of the  
19 voluntary efforts that Midwest Generation has  
20 taken, we never even had to look at those sources.

21                   They didn't need to make an  
22 equivalent reduction. So if we now go back and  
23 suggest that maybe, you know, Midwest Generation  
24 wouldn't make these conversions for some reason,

1 we would now need to go back and do multiple  
2 iterations to see if some other company who hasn't  
3 even been brought into the proceedings might be  
4 impacted and might be -- it might be necessary  
5 for them to make a reduction to offset the  
6 reductions that Midwest Generation would under  
7 this hypothetical not be making, so it's really a  
8 big question mark in that regard.

9                   Now moving on to Question 69,  
10 "Comments during the hearings indicated that  
11 environmental groups were not included in the  
12 development of IEPA's proposed revisions at  
13 Section 225.296(b) based on Midwest Generation's  
14 proposal to convert Joliet 6, 7, 8 and Will  
15 County 3 and exempt Will County 4 from the  
16 requirement to install FGD. During IEPA's  
17 outreach efforts, explain whether IEPA discussed  
18 Midwest Generation's proposals with environmental  
19 groups or other stakeholders."

20                   The answer is, yes. We  
21 discussed it. We sent out the draft rule for  
22 comment prior to submittal to the Board and that  
23 included Part 214, Part 217, Part 225 and we  
24 solicited comments at that time again before

1 submitting it to the Board and environmental  
2 groups were included in that distribution.

3 Those are all that we can answer  
4 right now.

5 HEARING OFFICER ROBERTSON: Thank  
6 you.

7 Did any members of the Board or  
8 Board staff have follow-up questions?

9 MS. ZALEWSKI: I just want to  
10 follow-up to your last answer.

11 Were there any changes made as  
12 a result from the comments from the environmental  
13 groups?

14 MR. BLOOMBERG: I don't remember.  
15 As I said, it was an outreach to lots of  
16 different -- you know, we got lots of different  
17 comments so far -- we can look and we can see what  
18 we can reconstruct. I just don't remember. I'm  
19 sorry.

20 MS. ZALEWSKI: Thank you.

21 HEARING OFFICER ROBERTSON: Okay.

22 MR. RAO: Mr. Bloomberg, you said  
23 you shared the draft rules with the environmental  
24 groups. Was it after the modeling was completed

1 or before?

2 MR. BLOOMBERG: It was after the then  
3 at the time what we now laughingly call final  
4 modeling was completed. You had to do the modeling  
5 to figure out what numbers would go in the rule  
6 and then -- so then we did that, we released it  
7 and then when comments came back in, we had to  
8 do more modeling because of certain things, like,  
9 for example, in the rule, there is an exemption  
10 for couple of different sources to use non-ultra-low  
11 sulfur diesel for a longer period of time.

12 Those were as a result of  
13 companies seeing the draft rule saying, oh, wait  
14 a minute, we have a huge tank of diesel still here.  
15 So we had to model run specifically, okay, what  
16 will happen if this one source doesn't use ultra-low  
17 sulfur diesel and as I said, each one of those took  
18 at least a week, so I don't know. I think I have  
19 answered your question, but I'm not sure at this  
20 point.

21 MR. RAO: I think so. Thank you.

22 BOARD MEMBER BURKE: When you shared  
23 the draft during the outreach with the environmental  
24 group, did they include proposed changes to Part 217

1 and Part 225.

2 MR. BLOOMBERG: Yes.

3 HEARING OFFICER ROBERTSON: Did  
4 anybody have any follow-up questions for  
5 Mr. Bloomberg?

6 MS. GARLISH: Robin Garlish. Do I  
7 need to spell it again? R-O-B-I-N, G-A-R-L-I-S-H.

8 When you -- when -- the question  
9 is how come the general public can't also be  
10 informed when you contact the environmental  
11 groups because I'm -- I speak with Moms for Clean  
12 Air. I'm loyal to Central Illinois Health &  
13 Community Alliance. I work with my daughter's  
14 respiratory specialist and I have walked and  
15 talked with parents and I recognize their children  
16 as they're home from school with the blackness  
17 in their eyes. They don't even have to tell me.  
18 I can already see why they are home from school,  
19 because their asthma -- the oxygen flow is bad  
20 because as a mom of an asthmatic, I recognize  
21 that and I believe the general public is the most  
22 important person here.

23 Is there a reason why the  
24 general public is not also being informed of this

1 information? I'm not a member -- I'm not here  
2 with a bus of Sierra Club. I'm sorry.

3 MR. BLOOMBERG: We do our best when  
4 we do this -- that sort of outreach to get it to,  
5 you know, whatever interested parties there are.  
6 We do rely on group like the Sierra Club and other  
7 environmental groups to, I guess, represent that  
8 aspect of the public.

9 It really would not be  
10 feasible -- I can't think of how we would get to  
11 out to everyone. If you wanted to be advised of  
12 those things, there is -- I'm trying to think if  
13 there is.

14 MS. GARLISH: Most cities, they have  
15 like air alerts and even some smaller cities have  
16 air alerts, which would be so helpful and then  
17 again, that probably goes along with modeling and  
18 a lot of things that you guys are all talking about.

19 MR. BLOOMBERG: Yes. The air alerts  
20 are -- I'm not sure what air alerts there are here.  
21 I know that there are air alerts in the Chicago  
22 area, in the Metro East St. Louis area.

23 As far as, you know, getting  
24 drafts of a rule out to general public, we do

1 the best we can. If we know someone is interested  
2 and -- for example, when we did the presentation  
3 last August, we sent it out to every list --  
4 email list that our community relations people  
5 knew about that would be interested and then  
6 when people -- you know, if they showed an  
7 interest, we certainly would have shared the  
8 draft rule with them.

9 But otherwise, you know, I  
10 think this rulemaking, this process is also for  
11 the public and it's just -- there is no good  
12 way for the Agency to share a draft with every  
13 member of the public prior to the rulemaking  
14 process, none that I can think of at least.

15 MS. GARLISH: Maybe that could be  
16 something that we can consider.

17 MR. BLOOMBERG: I can certainly talk  
18 to our community relations people about it.

19 MS. GARLISH: Thank you.

20 HEARING OFFICER ROBERTSON: Are there  
21 any additional questions for Mr. Bloomberg?

22 Are there any additional questions  
23 from the Board?

24 Seeing none, thank you,

1 Mr. Bloomberg, for your time today.

2                   Was anyone else -- we did have  
3 some sign-in sheets. Before we get to public  
4 comments, we had a number of people sign in that  
5 requested to give comments. We also had a  
6 testimony sheet. That sheet is blank.

7                   Was there anyone here that  
8 specifically wanted to testify on anything today  
9 before we get to public comments?

10                   Thank you. Seeing none, we  
11 will proceed with the public comments and we will  
12 start with the people who signed in and following  
13 that, if there is time, if you have not signed in  
14 and you would like to comment, we will allow that  
15 too.

16                   We have about 18 people. I  
17 do request that, if you can, keep the comments  
18 to around three minutes so we can make sure we  
19 can get all the comments in today. Again, I want  
20 to note, you are always welcome to file comments  
21 with the Board too.

22                   When going up to comment again,  
23 please step up to the microphone and just state  
24 your name and spell it for the court reporter. So

1 some of these people I think have spoken, but I will  
2 call their names again, Michael Inman? Lee Ann  
3 Garlish, I believe spoke. Next, we have Larry  
4 Kerrigan.

5 MS. GOLDEN: I think I might be  
6 next on your list anyway. I am Chris Golden,  
7 C-H-R-I-S, G-O-L-D-E-N.

8 Because Larry had to leave,  
9 and he wanted his testimony to be heard, I  
10 just have a brief part to read here.

11 Hi. My name a Larry Kerrigan,  
12 OFS. I am a retired union laborer. I live on  
13 the south side of Peoria.

14 Through the years, in my  
15 occupation as a laborer, I have worked in the  
16 power plants in this area. As a result of my  
17 choice to work in the power plants, I have asthma,  
18 COPD and other pulmonary issues. I am well-aware  
19 of the technology available today to lower  
20 emissions of sulfur dioxide.

21 I do not agree with the way  
22 that the system is being manipulated putting off  
23 bringing ED Edwards power station and Powerton  
24 station up to Clean Air Act standards. By not

1 putting our power plants up to the standards,  
2 the owners of the power plants are putting our  
3 communities and beyond at risk.

4 HEARING OFFICER ROBERTSON: Thank  
5 you.

6 And did you wish to offer comment  
7 for yourself too?

8 MS. GOLDEN: No. I will just pass.

9 HEARING OFFICER ROBERTSON: Thank  
10 you.

11 MS. GOLDEN: This is Larry's here.

12 HEARING OFFICER ROBERTSON: Again,  
13 if -- are there any objections? We will except  
14 those as an additional public comment and we will  
15 follow-up with the Board.

16 Seeing none, that will be added  
17 as an additional public comment.

18 Thank you. Next we have Brian  
19 Urbaszewsi.

20 MR. URBASZEWSI: Hello, my name is  
21 Brian Urbaszewsi. I'm the Director of Environmental  
22 Health Programs for Respiratory Health Association.  
23 We're a lung health charity based in Chicago focused  
24 on promoting lung health and preventing lung disease

1 through advocacy, education and research. And I  
2 want to thank you for allowing public comments again  
3 today.

4 While Respiratory Health  
5 Association appreciates the effort made to craft  
6 regulations to control SO2 emissions by the Agency,  
7 we still ask the Board to improve the proposal  
8 before finalizing the regulation.

9 As people mentioned earlier,  
10 the Clean Air Task Force numbers for the health  
11 impacts of the claims that we have been discussing  
12 here today, they ARE significant. Those numbers  
13 are primarily driven by SO2 emissions and, hence,  
14 strict SO2 pollution controls on major sources  
15 especially those within non-attainment areas are  
16 needed to reduce those numbers.

17 Even if we look at the Powerton  
18 plant and it's eventual use of DSI in a complete  
19 plant, we're likely getting about an 80 percent  
20 reduction from uncontrolled levels. Even after  
21 it has its most bare bones SO2 removal equipment  
22 fully installed in all units, it will still be  
23 the dirtiest way to generate electricity.

24 It will still be a huge source

1 of global warming pollution that will continue  
2 to accelerate in extreme weather events,  
3 agricultural and economic health damage, worsen  
4 air quality and lung health, in particular, by  
5 increasing wild fire smoke, allergenic pollen and  
6 ozone smog.

7           Respiratory Health Association  
8 remains concerned about allowing a 30-day rolling  
9 average to be used to determine compliance rather  
10 than an hourly average at Powerton. While others  
11 may make more detailed technical on this issue,  
12 we simply urge the Board to closely examine and  
13 to the greatest extent possible, require the  
14 shortest possible timeframe averaging in order  
15 to minimize the possibility of short-term spikes  
16 that would violate the SO<sub>2</sub> health standard and  
17 exacerbate lung disease.

18           The ED Edwards plant doesn't  
19 have any SO<sub>2</sub> scrubbing equipment installed nor  
20 has Dynegy proposed any plan to install that  
21 equipment. By requiring basically reasonably  
22 available control technology for this major  
23 source, it could be reduced by at least 80 percent  
24 or more.

1                   No coal plant built in the  
2 last 30 years has been built without this type  
3 of basic equipment. The numbers from the  
4 Clean Air Task Force study that show the deaths,  
5 the heart attacks, the asthma attacks from the  
6 Edwards plants won't change if only allowable  
7 emissions for the plant are restricted to what  
8 it emits now.

9                   The same number will get sick  
10 and die. The only way to reduce the damage is to  
11 cut the pollution being emitted. Actual emissions  
12 must be cut not what the plant hypothetically  
13 emits.

14                   We still believe that RACT  
15 should be required on those plants because it  
16 will be the single largest source of SO<sub>2</sub> in the  
17 peak and non-attainment area that Edwards coal  
18 plant. That plant has also self-reported hundreds  
19 of violations to the Illinois EPA over the last  
20 several years. Adding modern SO<sub>2</sub> scrubbing  
21 equipment may also help address that problem.

22                   As you hold this hearing a day  
23 after the US EPA finalized the Clean Power Plant  
24 Rule, which will dramatically increase the share

1 of power from clean renewable sources between now  
2 and 2030, coal power nationally is now projected  
3 to fall to providing 27 percent of our electricity  
4 by 2030, nearly half of what it has provided in  
5 recent history.

6 It's also clear that burning  
7 less coal will bring quickly -- will quickly  
8 bring health benefits to Illinois by reducing  
9 sulfur emissions perhaps by as many as 2,100  
10 lives saved between 2020 and 2030 as calculated  
11 by researchers at Harvard University.

12 Lastly, on behalf of the well  
13 over a million people in Illinois dealing with  
14 lung disease for which we advocate, my organization  
15 wishes to thank the Board for recently denying  
16 Dynegy the permission to sell excess SO2 credits  
17 that would have resulted in the release of an  
18 extra 60,000 tons of sulfur dioxide. That's  
19 more than six times the annual amount emitted  
20 by the Dynegy Edwards power plant that we have  
21 been discussing today.

22 For US EPA modeling, emissions  
23 from sources in Florida, SO2 sources in Florida,  
24 have a negative impact on air quality as far away

1 as Ohio. So whether those 60,000 tons Dynegy  
2 wanted to sell were emitted elsewhere in Illinois  
3 or in neighboring states, it would have worsened  
4 air quality here and increased the number of  
5 deaths and illnesses that now occur due to air  
6 pollution.

7 Thank you again for the work  
8 on this and we look forward to seeing the final  
9 product. Thank you.

10 HEARING OFFICER ROBERTSON: We have  
11 a couple more names of people that I think have  
12 already spoken, but I'll double-check. Joyce  
13 Harant spoke earlier. Gary Hall also spoke earlier.  
14 Next, we have Kevin Cashmer.

15 MR. CASHMER: My name is Kevin  
16 Cashmer, K-E-V-I-N, C-A-S-H-M-E-R.

17 Well, over 500 years ago when  
18 the first Europeans came to this continent, they  
19 were astonished that the indigenous people here  
20 actually drank the water because the water in  
21 Europe had been polluted 300 years prior to that.  
22 That's 800 years. We've been warned for over  
23 500 years that if we don't change the way we do  
24 things, there will be irreversible repercussions

1 from it.

2 In regard to fossil fuels in  
3 general, I will give you a native perspective  
4 on that. What do we do with our dead? In the  
5 most basic terms, we put them in the ground.  
6 For what reason, to stop the spread of death  
7 and disease.

8 Where do fossil fuels come  
9 from and in what form? The ground. What do  
10 fossil fuels come from? Dead and decayed plant  
11 and animal matter from millions of years ago.

12 So what are we doing in reality  
13 if we're not digging and pumping death out of the  
14 ground in the two most basic elements necessary  
15 to sustain life?

16 HEARING OFFICER ROBERTSON: Thank  
17 you.

18 We have next Robin Garlish.

19 MS. GARLISH: Robin, Garlish,  
20 R-O-B-I-N, G-A-R-L-I-S-H. I shouldn't be nervous  
21 by now, but I'm more nervous now.

22 First of all, I want to thank  
23 you for coming here. It shows that all of you  
24 care about my area. I don't know who planned

1 this particular hearing here, but it means a lot  
2 to us here.

3 Most mothers are working today  
4 that I know and can't be here. It's the first  
5 time my daughter ever got up and spoke and it  
6 was hard for me to hear her because it reminded  
7 me of when I performed child CPR on her when her  
8 lips were blue and brought her back. It reminded  
9 me of the week-long stays in the hospital.

10 It reminded me of every day at  
11 this age at 17 now, she is not only with an inhaler.  
12 She takes Prednisone which is a steroid. She takes  
13 Advair 100. My doctors give me a preventative since  
14 we have gone through this so many years. So we have  
15 Advair 500 as soon as she starts coughing or the  
16 black comes under her eyes.

17 We've never been able to keep  
18 her into sports. This is happening with many,  
19 many children in this town. Worldwide, we're  
20 already dealing with obesity and I shouldn't have  
21 to move from here. I want my children to be  
22 stable and I -- it just was really hard on me.

23 When I'm up here, I'm up here  
24 as a mother first who has struggled and watched

1 her to make sure she was breathing and the one  
2 time that I did look and she wasn't, thank God  
3 I did.

4 I don't wish it on anybody. I  
5 don't wish people to lose their jobs. I believe  
6 that the solar and wind energy -- my husband is  
7 a union ironworker and these are union jobs  
8 coming in.

9 I am also a member or an advocate  
10 for Moms for Clean Air. It was -- it might not  
11 make sense to you, but I met thousands of mothers  
12 from 18 other states now. We went to D.C. here  
13 recently and spoke with some others and it doesn't  
14 seem like we're on the same page here like we were  
15 out there.

16 I don't know why -- you know, I  
17 don't understand controversy when we're all trying  
18 to keep good jobs, healthy jobs, and keep our  
19 people healthy. I found a lot of today really  
20 disconcerting.

21 I, this year, for the first  
22 time, because I don't know we got to keep it  
23 down, had started developing respiratory problems.  
24 I'm from the middle of Iowa. I grew up around a

1 bunch of corn. No allergies ever. I had to  
2 take the nebulizer and also to take the Prednisone,  
3 which is a steroid. Also, I want to add there  
4 are very large side effects of these for my  
5 daughter possibly in the future. It's the choice  
6 of that or the choice of possibly fatal -- not  
7 living the life she's lived already.

8                   That nebulizer and that  
9 Prednisone, that steroid, made me shake out of  
10 my skin. My daughter doesn't know any different.  
11 She doesn't know any different.

12                   This is the first time she spoke  
13 because she couldn't figure out how to share with  
14 people what it felt like. She is used to the  
15 elephant sitting on her chest. She's used to that  
16 commercial you see with the fish that's out of the  
17 water.

18                   I didn't know that she didn't  
19 know how to compare that to us that can breathe  
20 and I -- they're troopers. I am also -- I was a  
21 Girl Scout leader and a preschool teacher and the  
22 kids all had these inhalers. You've got a lot of  
23 attachments on yours. Lee Ann had that when she  
24 was little. She doesn't need that anymore with

1 all the extensions, but different people breathe  
2 differently.

3 To these kids now that were  
4 sitting here today as just an example, them and  
5 all their friends, I'm very fortunate they hang  
6 out at my house. Some may say that's not  
7 fortunate, but I'm very lucky to have the children  
8 I do, they all carry inhalers.

9 I'm 56 years old. We didn't  
10 all carry inhalers. That is not the norm today.  
11 That should not be the norm. I mean, it is the  
12 norm today and it should not be the norm. That  
13 makes no sense to me.

14 I have a lot to say. I just  
15 wish people wouldn't play with our lives. I know  
16 there is a good solution and I personally am  
17 always looking for the solution. So on all sides,  
18 can we, I ask, find a solution? Make people  
19 healthier. I'm probably up. I have more to say.  
20 I'm disappointed.

21 HEARING OFFICER ROBERTSON: Thank  
22 you. As I mentioned earlier, too, if you have  
23 additional comments, you are also welcome to file  
24 written comments to the Board too. Thank you for

1 your time.

2 Next, we have Joyce Blumenshine.

3 MS. BLUMENSHINE: My name is Joyce  
4 Blumenshine, J-O-Y-C-E, B-L-U-M-E-N-S-H-I-N-E.

5 Thank you to Illinois Pollution  
6 Control Board and to IEPA. I really appreciate  
7 the discussion today.

8 I must say as a citizen, I am  
9 very concerned. I grew up Tazewell County. I  
10 lived in Pekin two years. I am currently chair  
11 of Heart of Illinois Sierra Club. I'm here  
12 speaking for Heart of Illinois Sierra Club. We  
13 are a coalition member with a Central Illinois  
14 Healthy Community Alliance and I still don't  
15 understand.

16 And I do apologize because it's  
17 been a long discussion about Powerton that even  
18 though the prescription from IEPA will say tons  
19 of sulfur dioxide, I don't hear how it's going  
20 to save a life that within a one-hour spike of  
21 SO2 pollution might result in asthma emergency, a  
22 heart attack or COPD. I don't hear that and I  
23 apologize if I fail to understand.

24 I'm not technician, but I

1 still would like to ask this Board to look at  
2 the one-hour spike because even if you average  
3 and you said 3,000 tons of sulfur total, what  
4 happens to the individuals here for decades?

5           You've heard this before, we  
6 are in a river valley that holds in air pollution  
7 and for decades we've had this pollution. Here  
8 is a directive that we can have better air and I  
9 would be glad that the state averaging and the  
10 regional averaging would take out tons of sulfur,  
11 but if it doesn't reduce the one-hour spikes,  
12 what does it mean to the individuals here?

13           I just think that's a question  
14 that we hope that you will answer in favor of the  
15 people and in favor of the over \$3,300 or more  
16 that individuals spend for asthma medications  
17 and all the costs that the public has born for  
18 decades. It's time to change that equation.

19           While it may have a chilling  
20 affect on corporations that volunteer to change  
21 from coal to gas, which it sounds really  
22 commendable, I don't wonder that it might also,  
23 as was discussed earlier, give them some extra  
24 advantages on their bottom corporate line which,

1 of course, that's what they're after. That's  
2 what they're all about. They're an investor  
3 group. They're making money off of this. I  
4 think that equation needs to change in the  
5 direction of fairness too.

6 We need good jobs and clean  
7 jobs. We have a cleaner energy future being  
8 promoted for our country. Let's latch on to  
9 that. Let's get the regulations that help move  
10 this along for Illinois. This is a key part of  
11 that.

12 I urge you please to go for  
13 the one-hour and the overall improvement and  
14 what we haven't heard enough about today is the  
15 ED Edwards plant because that affects me most  
16 closely and my friends in the Hollis Township.

17 And I wonder how it is that  
18 corporation can go decades and decades without  
19 the pollution controls and now there is no  
20 timeline, there is no prescription for the right  
21 and necessary upgrades to best technology. We  
22 need to ask you please to be sure that is included  
23 about Edwards.

24 Thank you again for your patience

1 today. Thank you for being here in Pekin. We look  
2 forward to your decision.

3 HEARING OFFICER ROBERTSON: Thank  
4 you.

5 Next we have Tracy Fox followed  
6 by Frank Hubble.

7 MS. FOX: My name is Tracy Fox.  
8 I'm a member of Peoria Families Against Toxic  
9 Waste, another coalition partner of the Central  
10 Illinois Healthy Community Alliance.

11 I'm here today as an unpaid  
12 volunteer to talk about some of my concerns with  
13 the changes that are being discussed.

14 First of all, I would like to  
15 raise an issue related to public involvement. I  
16 find it very disconcerting that on January 9th of  
17 this year, and that would be a month-and-a-half  
18 practically before the first release of these  
19 adjusted standards on February 17th, a memorandum  
20 of agreement between Dynegy and the Illinois EPA  
21 was released to the public.

22 It was greeted with much fanfare  
23 in the media and heralded as a massive reduction  
24 in Dynegy's polluting footprint. My group, as well

1 as the Central Illinois Healthy Community Alliance,  
2 spent quite a long time looking at the agreement  
3 and finally understood that, in fact, not one  
4 piece of sulfur dioxide was being decreased.

5 Instead, it was a 90 percent reduction in  
6 allowables, which was disappointing to us because  
7 we know that the permits have been oversized for  
8 decades.

9 I don't know if it's the people  
10 in this room or others at the Illinois EPA or  
11 people at the US EPA who are to blame, but I know  
12 the permits haven't been updated. They do not  
13 reflect current pollution levels. So we are left  
14 with, you know, a great heralded announcement that  
15 means absolutely nothing to people attempting to  
16 breathe in the Illinois River valley.

17 But as I read over the memorandum  
18 of agreement, I was most disconcerted when I got  
19 to the end of it where the Illinois EPA promises  
20 in writing that they are going to look out for  
21 Dynegey's interest through these proceedings and  
22 I quote directly Illinois EPA -- talking about  
23 Illinois EPA, insert brackets here, agrees to use  
24 best efforts to support SO2 reductions for the

1 Edwards station that are no more stringent than  
2 agreed to in the MOA.

3 As a citizen, this really  
4 upsets me. I do not believe that that is intent  
5 of the Clean Air Act. I do not believe that the  
6 Illinois EPA was acting within their authority  
7 and I believe that you, as the Illinois Pollution  
8 Control Board, should be outraged by this.

9 Now, I don't know where the  
10 modeling fell in all of this and who released what  
11 and certainly, as a citizen of a small kitchen  
12 table environmental group, I am not privy to the  
13 models and appendices and I have no opportunity to  
14 submit jump drives and get additional information,  
15 but certainly from my perspective, the existence  
16 of this MOA absolutely cuts the public out of  
17 the equation altogether as well as all of the  
18 environmental groups because that announcement,  
19 that public heralding of Dynegy's great achievement,  
20 came to as a surprise to all of us.

21 If the Board is not familiar  
22 with this, I would be happy to submit this document  
23 as part of my testimony.

24 The second thing is that I have

1 some experience with modeling myself. I am a  
2 technical writer, so I'm not a modeler, but I find  
3 it very disconcerting the way that these models  
4 are being presented and there is no effective  
5 summary of what was done or how it worked  
6 whatsoever. No attempt was made to include that  
7 sort of information so that the public can begin  
8 to understand.

9 I read through and I thought a  
10 lot about, hey, they're going to use this Potomac  
11 data because they don't have the Trona controls on  
12 the Powerton unit and that sounds very reasonable,  
13 but I didn't understand why Mr. Bloomberg was so  
14 reluctant and so unwilling to talk about using  
15 historic data to validate the model.

16 Once he used some historic data  
17 and said, hey, my model is capable of projecting  
18 what happened in 1995 and 2005, et cetera, but  
19 then he would take the data from the Powerton unit  
20 and plug that into the model, he would know his  
21 ratio that he was using to set everything up and  
22 he could say this is all hunky-dory and it worked.  
23 But instead he tells me over and over that it  
24 takes him a full week to run the modeling.

1                   Now, in my experience, every  
2 modeling team I've ever worked with, each iteration  
3 got shorter because you're culling out the junk  
4 and you're focusing on the numbers that you need  
5 to know. You know, so I just find this whole  
6 explanation of modeling to be -- in many  
7 ways I feel like they're using it as an excuse.

8                   The other thing that I  
9 never found anywhere in the document, and I admit,  
10 you know, I did not have hours and hours to page  
11 through this, is I didn't see any competence levels,  
12 any discussion of variability. I mean, typically,  
13 the teams I've worked with, when they get results  
14 out of the model, there are certain results at a  
15 99 percent competence level, results at a 99.5  
16 percent competence level, et cetera, et cetera.  
17 Nowhere in the documentation available to the public  
18 did I find any of that.

19                   Furthermore, usually the way  
20 that -- and I'm going to use manufacturing  
21 tolerance as an example because it's really easy  
22 to understand. If you're out of tolerance on 15  
23 parts that you're trying to screw together, your  
24 problems get worse and worse the more things you

1 have out of tolerance. So a lot of times I will  
2 pick the three to five most important things and  
3 I'll focus the modeling on those, but then I  
4 have a plan. I say when I get to that area  
5 where I'm just at this edge, I'm going to have  
6 a backup plan to look at all these other parts.  
7 Again, there doesn't seem to be any reactivity  
8 and maybe that's part of the attainment  
9 demonstration. Although I don't really think it  
10 should be. I consider an attainment demonstration  
11 something a little different.

12                   You know, but I think you,  
13 Illinois Pollution Control Board, you need to  
14 press your internal experts to really go over  
15 and say process-wise, procedure-wise, does this  
16 testimony really make sense or are we just hiding  
17 behind modeling because we want to implement  
18 something we already rubber stamped in January and  
19 that unfortunately is where I'm left and what I  
20 believe.

21                   A few other comments specific  
22 to the Edwards plant, I find it very disappointing  
23 that a plant that is the number one polluter in  
24 Peoria County by any measure still continues to

1 run without any perceptible reduction in the actual  
2 amount of SO2 emitting. I find that abominable that  
3 Illinois EPA could not find some way to give  
4 relief to our community who has suffered under  
5 this plant for 50-plus years.

6 You know, when I look at the  
7 allowables, in the 90 percent reduction, I'm happy  
8 that the permits have been right-sized. I think  
9 all permits should be right-sized on automated  
10 basis and have to appeal if they are not, but  
11 unfortunately, that's not the way the law is  
12 written, but unfortunately, the emissions are still  
13 below what the permitted levels are.

14 So, you know, they can increase  
15 their emissions under this scenario and still be  
16 within what Illinois EPA feels is hunky-dory for  
17 Peoria County.

18 I don't really know what the  
19 longstanding envy against our hometown is, but it  
20 does seem like we are always the last in line for  
21 any sort of Pollution Control Board improvements.

22 The other thing is I don't  
23 understand the specifics of how this is set up.  
24 They've got a grouping of stacks one and two and

1 those have to be considered together and stack  
2 three separately until they got to the point where  
3 only stack three is left running. And what I  
4 find curious is that if both one and two close,  
5 stack three is actually allowed to increase it's  
6 SO2 output to the 4,000 and that doesn't make  
7 sense to me.

8                   If I take the whole station,  
9 yes, it's a little bit less, but why isn't it  
10 less by 2,100, the amount from using stack one  
11 and stack two? I mean, they just makes some great  
12 leaps of assumption and I assume they thought that  
13 would okay for Peoria. That place is a polluted  
14 hellhole anyway. You know, it's disappointing to  
15 continue to come to these hearings and feel like  
16 that's the way that we're viewed.

17                   You know, in the end, I almost  
18 disappointed to see the Illinois EPA recommend  
19 allowing NRG to renege on the CPS. I feel like  
20 those agreements were hammered out in 2006 and  
21 2007. You know, in good faith, the environmental  
22 community said if you do the Mercury controls, it's  
23 going to allow you to put off doing some of sulfur  
24 things and I sat through variances requested by NRG,

1 variances requested by Dynegy having to do with a  
2 fleet-wide SO2 things and now this, they want to  
3 roll, you know, this change from Will County to  
4 Joliet into this.

5 I just feel like, you know, it  
6 may have a chilling effect on company's willingness  
7 to come up with voluntary things, which from a  
8 Peoria perspective, it don't amount to anything  
9 at all, but I also think you need to consider it's  
10 going to have a chilling impact on public input to  
11 just throw out these longstanding agreements that  
12 people have waited for years and years for pollution  
13 improvement in their neighborhoods, not pollution  
14 improvements across the state.

15 I hope that this Board will look  
16 carefully at the work that the Illinois EPA has  
17 done, will consider the fact that it's already  
18 three months late and ask them to do things  
19 correctly, provide a real venue for public input  
20 and start tackling the hard work of actually  
21 cleaning up Illinois' air.

22 Thank you and thank you for the  
23 indulgence of my extra time.

24 HEARING OFFICER ROBERTSON: Thank

1 you.

2 Next we have Frank Hubble.

3 UNIDENTIFIABLE SPEAKER: He had to  
4 go.

5 HEARING OFFICER ROBERTSON: Thank  
6 you.

7 I believe the next two people  
8 spoke earlier; Larry Jones and Jo Lakota.

9 So next we have Doug Vougvtas.

10 MR. VOUGVTAS: Good afternoon and  
11 welcome to Pekin. My name is Doug Vougvtas,  
12 V-O-U-G-V-T-A-S.

13 I'm here today to represent the  
14 International Brotherhood of Electrical Workers  
15 Local 15. Our members work at Powerton. We work  
16 with Will County, Joliet, pretty much all the  
17 generating stations across Illinois.

18 Many of our members are working  
19 today. We've got a couple handfuls of people left,  
20 but we work 24/7. So they've got to work tonight  
21 and this afternoon.

22 I've personally lived in Pekin  
23 the last 50 years. My whole family lived in Pekin.  
24 My parents are still -- thank God, still healthy

1 and alive in their late 70s. I've got a son,  
2 brother. So all of our families are pretty much  
3 still around here.

4 I've worked at Powerton for  
5 28 years, but what I want to touch on today real  
6 briefly was over 130 people who do work on Powerton  
7 and that's not counting multiple contractors, as  
8 someone mentioned earlier, the ironworkers, the  
9 scaffolders, et cetera.

10 A lot of those guys are hunters,  
11 fisherman, pretty much what a lot of people  
12 consider the original environmentalists. They  
13 live in this area. They work at that station.  
14 They have their children here, their grandchildren.  
15 I know most of them from my 28 years at the station.  
16 I know their parents. They aren't going to do that  
17 they could -- they'll do anything that they can  
18 not to harm them.

19 Powerton's top two priorities  
20 are pretty much safety and the environment. The  
21 station has continued to spend -- has and continues  
22 to spend hundreds of millions of dollars on  
23 pollution control equipment. They'll do just  
24 about anything they can that's financially

1 responsible to reduce their emissions.

2                   They have been working with the  
3 Illinois EPA for the last year and a half -- or  
4 for approximately the last year on this rule and  
5 we do support it as written and we would like to  
6 Illinois Pollution Control Board also support it.

7                   Thanks for your time.

8                   HEARING OFFICER ROBERTSON: Thank  
9 you.

10                   There are two names left on the  
11 sign-in sheet; Dale Green followed by Mark Bannaken.

12                   MR. GREEN: My name is Dale Green,  
13 D-A-L-E, G-R-E-E-N.

14                   I just want to thank you.

15 The conversation that took place today helps us  
16 understand what's going on. I have lived in this  
17 area my entire life and most of our employees that  
18 are here today have also. We enjoy the outdoors.  
19 We have a vested interest in making sure that our  
20 environment is as safe as it possibly can be.

21                   We do support the rule as it  
22 is written for the SO2. Under the CPS, we have  
23 drastically reduced our emissions over the last  
24 few years. It shows our willingness and our

1 commitment to the environment.

2 We do care about the environment.  
3 We care about where we work, how we work and how  
4 that affects the community where we operate and  
5 we want to make sure that we first operate safety  
6 and that we are environmentally responsible in the  
7 community where we operate.

8 With that said, we are installing  
9 additional equipment next year, which will be  
10 operational at the end of next year that does  
11 further support the rule here that we discussed  
12 today.

13 So thank you for your time.

14 HEARING OFFICER ROBERTSON: Thank  
15 you.

16 Next, we have Mark Bannaken.

17 MR. BANNAKEN: Yes. My name is Mark  
18 Bannaken, M-A-R-K, B-A-N-N-A-K-E-N.

19 I also have lived in this area  
20 all my life. I have lived in Delavan, which is a  
21 few miles south of here. I raised my family there.  
22 I was on the Board for the United Way here in Pekin  
23 for a while and currently the vice-president for  
24 the Delavan school board.

1 I just want to say that Powerton  
2 employees and the company are working very hard  
3 every day to reduce our emissions. Starting back  
4 in the '70s, we switched to -- the late '70s about  
5 the time I hired in, we switched to low-sulfur  
6 coal and from there on, just every year it seems  
7 like we are doing more and more to reduce our  
8 emissions.

9 We are spending a lot of money  
10 in the next couple years here for -- on the back  
11 end controls and I just want the Board to know  
12 that we support the Illinois EPA and their rulings.  
13 So thanks.

14 HEARING OFFICER ROBERTSON: Thank  
15 you.

16 That's the end of the crowd  
17 who signed in. Was there anyone else here today  
18 who wished to offer any public comment?

19 Ms. Bugel?

20 MS. BUGEL: I actually have one  
21 last question for the Agency.

22 HEARING OFFICER ROBERTSON: Can we  
23 just finish with public comments and then we will  
24 come back?

1 MS. BUGEL: Sure.

2 HEARING OFFICER ROBERTSON: Thank  
3 you.

4 Any other -- yes, Ms. Garlish?

5 MS. GARLISH: I have -- I was  
6 involved in a teleconference with the -- would  
7 it have been the IEPA or the Illinois Pollution  
8 Control Board, I'm not sure who it was, but they  
9 had given me the locations of the air monitors,  
10 one on Jefferson Street in Peoria at the fire  
11 department and also one in Pekin on Derby Street  
12 at the fire department.

13 I went the first time to  
14 check it out because I had never seen one before  
15 and it was interesting. The reading -- it was --  
16 I don't know. It was right around 60 point  
17 something. I'm new to the ppb's and all of this  
18 stuff.

19 I was there last week and it  
20 was 78 point something and when I tried to look  
21 at these things online, I can't find them. When  
22 I look for things like that little monitoring, I  
23 couldn't find them available to me three years  
24 ago when I started realizing my gut instincts

1 were true about when my daughter goes outdoors,  
2 she can't breathe. When she comes into controlled  
3 breathing, she can breathe.

4 And so I'm wondering how come  
5 none of this was presented? Because now, they  
6 won't let me in. Now, the firemen told me they  
7 don't want to get in trouble. So they said they  
8 want to talk to somebody, I guess, with your Board  
9 to make sure that I can come in and check it out and  
10 read the monitor.

11 But I just -- I wonder -- I  
12 just want to make that last comment. I am  
13 checking them. I'm trying to figure them out.  
14 I know the 78 was pretty high and it was a pretty  
15 high day and Aventine, who hasn't been brought  
16 up a lot, had a lot of black stuff coming out,  
17 too, along with the Edwards plant.

18 I think these should be also  
19 offered to the public whether it be online or --  
20 you know, that possibly would be easier online  
21 than an air alert or something like that.

22 HEARING OFFICER ROBERTSON: Thank  
23 you.

24 Were there any other public

1 comments?

2                   Before we move on, I just want  
3 to say thank you to everyone that came out to  
4 offer public comment or also to those who did  
5 not speak but came out. I know it's been a  
6 long day. We appreciate you coming out and  
7 saying what you have to say or just participating  
8 in the public hearing. So thank you all for your  
9 time.

10                   Ms. Bugel, you had a question?

11                   MS. BUGEL: Thank you. Hopefully,  
12 this will be quick.

13                   I noticed that the Board's  
14 Question 69 talked about development of IEPA's  
15 proposed revision based on Midwest Gen's proposal  
16 and I don't deny that Sierra Club and other groups  
17 were included in the outreach after the draft rule  
18 was written, but did the Agency reach out to any  
19 of the environmental groups that were part of the  
20 negotiation of the CPS and the NPS to include them  
21 in discussions with Midwest Gen when Midwest Gen  
22 was renegotiating the CPS?

23                   MR. BLOOMBERG: Those negotiations  
24 were done under a confidential situation because

1 Midwest Generation had not announced those, I  
2 believe, and I could be wrong about this, but I  
3 believe even to stockholders because they needed  
4 to make sure first that the negotiations would  
5 work or rather that they would reach attainment.

6 As I said in my testimony, if  
7 we had seen that reductions were necessary on  
8 Will County 4, then there would have been no  
9 point in going forward were that aspect of the  
10 negotiation.

11 So after that was done, after  
12 they made their announcement, that was when, you  
13 know, it was publicly available, but that's still  
14 all part of the rule development process.

15 MS. BUGEL: Thank you.

16 HEARING OFFICER ROBERTSON: Thank  
17 you.

18 MR. BLOOMBERG: Since this is the  
19 last hearing, I hope you wouldn't mind if I just  
20 mentioned a couple things in response to a couple  
21 of the comments?

22 HEARING OFFICER ROBERTSON: That's  
23 fine. Thank you.

24 MR. BLOOMBERG: I know everyone just

1 wants to be here longer.

2 In response to the Dynegy MOA, it  
3 was not a rubber stamp, as the commenter said. In  
4 fact, there was quite a lot of modeling that went  
5 into it before those limits were agreed upon and  
6 those limits were put in the MOA before they went  
7 into the rule because Dynegy wanted to lock in  
8 and say, look, we're definitely making these  
9 reductions.

10 So we already knew at that point  
11 from that level of modeling what the numbers would  
12 be, what it could be, and had gone back and forth  
13 with Dynegy in order to ensure that attainment  
14 would be modeled in that area.

15 Also, regarding the modeling,  
16 I'm not sure what the commenter was talking about  
17 when the modeling, but I suspect that it was a  
18 very different type of modeling than we do. I  
19 can assure you can it takes quite a long time,  
20 no matter how many iterations we are into it.

21 Regarding the question on the  
22 monitors, I wanted to answer her, but she's out  
23 there. Regarding the questions on those monitors,  
24 they are on -- I'm going to take your word that

1 they are on fire department property. I don't  
2 know off the top of my head where they are. As  
3 such, it would be up to fire department whether  
4 or not you can go on that property or where it  
5 is. The Pollution Control Board would have nothing  
6 to do with that. It is Illinois EPA monitors.

7 And, you know, generally they  
8 are in a place where they are safe, you know,  
9 sometimes fenced off. Quite frankly, sometimes  
10 they're on roofs. They're dangerous to get to.  
11 So that may have been more of a consideration for  
12 them. I don't know. I can't speak for them. No  
13 one has ever asked me about that.

14 And as far as where you can get  
15 the numbers, those numbers, I believe, are recorded  
16 in US EPA's air quality system. I don't know the  
17 exact -- you know, the exact domain name or web URL  
18 that.

19 MS. GARLISH: The logbook -- the  
20 last recorded entry in the logbook, and this was  
21 not on the monitor, the monitor looks like a  
22 stereo system, like a Yamaha stereo system, and  
23 there's a tube going up apparently, you know,  
24 obviously in the roof, but the log -- the last

1 date on the log-in was June of 2011 at that  
2 particular book on that particular air monitor  
3 model. It is on just a shelf because it is like  
4 a stereo receiver.

5 MR. BLOOMBERG: I'm not sure what  
6 logbook you're talking about. The operators of  
7 the monitor should fill out, you know, entries  
8 when they're there doing testing and, you know,  
9 I have no reason to believe that it's been four  
10 years since they have been there. I'm fairly  
11 certain I would know about that if it were.

12 MS. GARLISH: It probably wouldn't  
13 be running, I agree. It was somebody from the  
14 Illinois EPA that gave me permission and gave me  
15 the locations. I don't remember offhand, but I  
16 would like to find out about getting permission.  
17 Actually, the last time I took the high schoolers  
18 with me -- and it was very interesting, this has  
19 been educational for them and hopefully this will  
20 be healthier for them at some point.

21 MR. BLOOMBERG: Okay.

22 HEARING OFFICER ROBERTSON: Again,  
23 thank you all for your time.

24 We are going to start wrapping

1 up now. Does anyone have any closing statements  
2 today?

3                   Seeing none, we have just  
4 one housekeeping item to discuss, which again  
5 we mentioned at the last two hearings.

6                   The Board did request that the  
7 Department of Commerce and Economic Opportunity,  
8 abbreviated DCEO, perform an economic impact study  
9 on the Agency's proposal.

10                   DCEO responded that it was unable  
11 to do so and copies of these letters are available  
12 on the Board's website.

13                   Are there any comments on the  
14 Board, or DCEO, letters at this time?

15                   Seeing none, we are just going  
16 to go off the record for a minute to discuss filing  
17 deadlines. Let's go off the record. Thank you.

18                   (Whereupon, a discussion  
19 was had off the record.)

20                   HEARING OFFICER ROBERTSON: Let's  
21 go back on the record now. Thank you.

22                   So we were off the record now  
23 just to discuss filing deadlines. The Board has  
24 requested that the Agency file an updated version

1 of its proposal following the Agency's amendments  
2 and responses to questions.

3 The hearing transcript should  
4 hopefully be in by Friday, August 7th in the  
5 morning, possibly earlier.

6 The Agency will be filing its  
7 proposal and responses to the Board's August 3rd,  
8 2015, hearing officer order with Board questions.

9 The Agency will be filing its  
10 responses and updated proposal by August 14th.

11 Public comments and post-hearing  
12 comments for today's hearing will be due, and final  
13 comments are due, August 28th and responses to those  
14 comments will be due September 11th.

15 Does any members of the Board or  
16 Board staff have any final comments to make? Any  
17 other final comments?

18 Again, thank you all for coming  
19 out today. We appreciate your time and with that,  
20 this hearing is adjourned. Thank you.

21 (Whereupon, the proceedings  
22 in the above-entitled cause  
23 were adjourned.)

24

1 STATE OF ILLINOIS )  
2 ) SS.  
3 COUNTY OF C O O K )  
4  
5

6 I, LORI ANN ASAUSKAS, CSR, RPR,  
7 do hereby state that I am a court reporter doing  
8 business in the City of Chicago, County of Cook,  
9 and State of Illinois; that I reported by means  
10 of machine shorthand the proceedings held in the  
11 foregoing cause, and that the foregoing is a true  
12 and correct transcript of my shorthand notes so  
13 taken as aforesaid.

14  
15 *Lori Ann Asauskas*  
16



17 Lori Ann Asauskas, CSR, RPR.  
18 Notary Public, Cook County, Illinois  
19  
20  
21  
22  
23  
24

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