

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: )  
 )  
COAL COMBUSTION ASH PONDS ) R2014-10  
AND SURFACE IMPOUNDMENTS AT )  
POWER GENERATING FACILITIES: ) (Rulemaking-Water)  
PROPOSED NEW 35 ILL. ADM. CODE )  
841 )

TRANSCRIPT FROM THE PROCEEDINGS taken before  
the HEARING OFFICER TIMOTHY J. FOX by LISA K. HAHN,  
CSR, RMR, a notary public within and for the County  
of Macon and State of Illinois, at the offices of the  
Illinois Environmental Protection Agency, Sangamo  
Room, 1021 North Grand Avenue East, Springfield,  
Illinois, on the 26th day of February, 2014, A.D., at  
10:00 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  
5 Chicago, Illinois 60601  
6 312-814-6983  
7 BY: MR. TIMOTHY J. FOX,  
8 Hearing Officer.

9 ILLINOIS POLLUTION CONTROL BOARD MEMBERS PRESENT:

10 Mr. Jerome O'Leary, Lead Board Member  
11 Ms. Jennifer Burke, Board Member  
12 Dr. Deanna Glosser, Board Chairman  
13 Ms. Carrie Zalewski, Board member  
14 Mr. Anand Rao, Technical Unit  
15 Ms. Alisa Liu, Technical Unit

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17 1021 North Grand Avenue East  
18 P.O. Box 19276  
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21 BY: MS. JOANNE M. OLSON  
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23 Appeared on behalf of the Petitioner;

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BY: MS. SUSAN FRANZETTI,

Appeared on behalf of Midwest Generation,  
LLC.

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6 BY: MS. AMY ANTONIOLLI,

7 Appeared on behalf of Medina Valley Cogen.

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12 BY: JESSICA A. DEXTER and  
13 ANDREW ARMSTRONG,

14 Appeared on behalf of Environmental Law &  
15 Policy Center.  
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1 HEARING OFFICER FOX: The hour of 10  
2 o'clock having come and passed, I want to wish you  
3 all a good morning and welcome to this Illinois  
4 Pollution Control Board Hearing.

5 My name is Tim Fox, and I'm the Hearing  
6 Officer for this proceeding, which is entitled, Coal  
7 Combustion Waste (or CCW) and Surface Impoundments at  
8 Power Generating Facilities: Proposed New 35  
9 Illinois Administrative Code 841. The Board Docket  
10 Number for this Rulemaking is R14-10.

11 I first want to introduce others today  
12 who are present from the Board. At my immediate  
13 right is Board Member, Jerry O'Leary, who is the Lead  
14 Board Member for this Rulemaking. At my left is the  
15 Board's Chairman, Dr. Deanna Glosser.

16 At my far right are two Board Members,  
17 Jennifer Burke, and at the end of the table, Board  
18 Member, Carrie Zalewski.

19 At the left at the end of table are the  
20 Board's Technical Staff Representatives, Anand Rao,  
21 and at the end of the table, Alisa Liu.

22 The Illinois Environmental Protection  
23 Agency filed this Rulemaking proposal with the Board  
24 on October 28th of 2012, and in an Order dated

1 November 7th of 2013, the Board accepted that  
2 proposal for hearing. Today, we are, of course,  
3 holding the first hearing in this Rulemaking.

4 We will be hearing testimony from the  
5 Agency and its witnesses and then entertaining  
6 questions that are based on the Agency's proposal and  
7 the testimony that they have filed.

8 There will also be an opportunity at the  
9 end of the hearing to offer testimony on the Board's  
10 request that the Department of Commerce and Economic  
11 Opportunity perform an Economic Impact Study of the  
12 proposal.

13 In an Order dated December 6th, the  
14 Hearing Officer directed the Agency to pre-file  
15 testimony for this first hearing on or before  
16 Wednesday, January 15th of 2014, and on that date,  
17 they did so.

18 They have pre-filed the testimony by  
19 Mr. Richard Cobb, Mr. William Buscher, Mr. Lynn  
20 Dunaway and Ms. Amy Zimmer. The Agency's witnesses  
21 are present here today and are prepared to be sworn  
22 in to answer questions.

23 The Hearing Officer Order also directed  
24 participants in this proceeding to pre-file written

1 questions that were based on the Agency's pre-filed  
2 testimony, and to do so no later than Wednesday,  
3 February 5th.

4           On that date, the Board received three  
5 sets of pre-filed questions: The first from Midwest  
6 Generation, LLC; the second from Medina Valley Cogen,  
7 LLC; and the third from the Environmental Law and  
8 Policy Center on behalf of itself, the Environmental  
9 Integrity Project, Sierra Club, and the Prairie  
10 Rivers Network.

11           Also, on February 5th, a Board Hearing  
12 Officer Order included in an Attachment the Board's  
13 own questions, based on the Agency's proposal and  
14 testimony.

15           The Board has posted all of these  
16 filings, the testimony, and the questions, to its  
17 Clerk's Office Online, and it's accessible there and  
18 can be downloaded or printed. As you wish.

19           Although the Hearing Officer Order had  
20 intended to begin today with the Agency's pre-filed  
21 testimony, we do have appearing here today  
22 approximately ten persons who wish to offer public  
23 comment to the Board on the Agency's proposal.

24           Has everyone who is here wishing to offer

1 a public comment signed in to indicate that they wish  
2 to do so?

3           Neither seeing nor hearing anyone else  
4 who wishes to comment, we have those folks. In  
5 discussing the order of our hearing with the  
6 participants, before we went on the record they  
7 agreed, out of consideration of those -- the  
8 schedules of those commentors, that we would begin  
9 the hearing today with those comments, and I'll turn  
10 to that again in a moment.

11           Once those comments are over, we will  
12 turn to the Agency's pre-filed testimony. Under  
13 Section 104.424(f) of the Board's procedural rules,  
14 that pre-filed testimony is entered into the record  
15 as is if read, but it's my understanding that the  
16 Agency wishes to begin with a brief introduction or a  
17 summary.

18           Once that is concluded, we can turn to  
19 the pre-filed questions that have been filed for the  
20 Agency's witnesses.

21           Based on the order in which those  
22 questions were filed with the Board, we will turn  
23 first to Midwest Generation for the questions that it  
24 has filed and any clarification or follow-up.

1           We would next provide that same  
2 opportunity to Medina Valley Cogen for any follow-up  
3 it may have. We will also then provide the same  
4 opportunity to the environmental groups for them to  
5 address their questions.

6           I do want to note that the Agency has  
7 produced for us here at hearing today written answers  
8 to each of the questions that were pre-filed. The  
9 Agency has generously provided copies both of those  
10 written answers and exhibits, or attachments to them,  
11 and those are available at the rear of this room on  
12 the round table.

13           Many thanks to the Agency for the efforts  
14 that they no doubt undertook to prepare those and  
15 then to supply the copies. I know those to be very  
16 helpful in reviewing the testimony and the questions  
17 that have been filed in this case.

18           Once we have turned -- once the  
19 environmental groups have concluded their questions,  
20 we will turn to the Board, which, as I have  
21 mentioned, has filed its own questions on this  
22 proposal for any follow-up that the Board may have.

23           After the testimony and questions have  
24 wrapped up, we can determine whether any additional

1 persons have appeared wishing to offer a public  
2 comment before we adjourn.

3 Are there any questions about the order  
4 of our proceeding or any procedural issues before we  
5 get under way?

6 Neither seeing nor hearing any, as I  
7 mentioned, we would like to begin with the public  
8 comments.

9 I have in front of me the lists that  
10 people have used to sign in indicating that they wish  
11 to offer one. I would like to read through these  
12 names in the order in which we will call you up to  
13 comment to verify that you are here. I would ask you  
14 to note who you will be following so that you can  
15 come up to the podium where we have a microphone set  
16 up for you, and be waiting in the wings so that we  
17 can address your comments as efficiently as possible.

18 I understand that you've been prepared to  
19 limit your comments to approximately three minutes in  
20 length, which we appreciate, and I would also ask  
21 that you listen to the comments that precede yours so  
22 that we can avoid any repetition of those.

23 But let me verify, first of all, that we  
24 have these folks present, and forgive me if I

1 mispronounce your name or have difficulty reading  
2 your handwriting.

3           The first is Joyce Harant, is that  
4 correct, is present here this morning? Second is  
5 Tracy Fox, who is not a relation that I'm aware of.  
6 Third, Melinda Shaw. Do I see a hand for Melinda  
7 Shaw here today? Oh, I do. I'm sorry that I  
8 overlooked that. Fourth, Eileen Borgia? Very good.  
9 Third is -- is it Audrey Hobber. The last name  
10 H-O-B-B-E-R, it appears, with the Sierra Club is  
11 identified as the affiliation. And I'm having  
12 trouble with first name. Hobber, though, I'm sure is  
13 the last name?

14           MR. HABBEN: Rudy. The first name is  
15 Rudolf.

16           HEARING OFFICER FOX: Thank you for  
17 clarifying for me. I wasn't close, I'm afraid.

18           The next one is Joyce Blumenshine, who I  
19 do see is present. Christine Favilla -- am I  
20 correct?

21           MS. FAVILLA: Favilla.

22           HEARING OFFICER FOX: Favilla. Very  
23 good. And the last person is Robin Garlish. Very  
24 good. All of those folks are present.

1           Let me ask -- again, Harant? Did I  
2 pronounce that correctly? We are absolutely ready  
3 for you. The microphone at the podium is on. It's  
4 my understanding that you need to be quite close to  
5 the microphone in order for it to pick up your  
6 comments clearly. If you would begin when you're  
7 ready, please do so.

8           MS. HARANT: Thank you very much, and  
9 thank you for this opportunity to speak here today on  
10 the importance of strong regulations on coal ash  
11 pits.

12           My name is Joyce Harant, and as a  
13 resident of Peoria, I drove down here this morning in  
14 this wonderful temperature, and I'm also an  
15 environmental advocate.

16           I feel it is critical that the Illinois  
17 Pollution Control Board listen to concerned citizens  
18 in this room and that you strengthen the proposed  
19 rules before the Board.

20           I fought hard to prevent a high hazard  
21 landfill from being expanded in Peoria, imposing a  
22 serious threat to my community's health and the  
23 Illinois River, and I do not want to see these same  
24 waters be damaged by the toxic chemicals present in

1 coal ash.

2 The Edwards Power Plant is one among  
3 several in the area that contain coal ash pits that  
4 could contaminate my groundwater. Not only do I care  
5 about my health and that of my family and friends,  
6 but I've lived along the Illinois River for over 30  
7 years.

8 I urge the Illinois Pollution Control  
9 Board to strengthen these rules.

10 Our communities need to be protected by  
11 closing pits that are causing contamination and to  
12 require facilities to provide a guarantee that these  
13 problems are not a cost on the community, and this,  
14 for me, is extremely important. Communities should  
15 not have to bear the burden of pollution that is from  
16 a for-profit entity, such as a coal energy producing  
17 plant.

18 Finally, as a member of the public, I'd  
19 ask that I be given notice and included in the  
20 process of protecting my community from coal ash  
21 contamination.

22 Thank you very much.

23 HEARING OFFICER FOX: I should have asked  
24 you to do this first. If you could spell your name

1 in its entirety.

2 MS. HARANT: I certainly can. It's  
3 Joyce, J-O-Y-C-E, Harant, H-A-R-A-N-T. Do you need  
4 addresses?

5 HEARING OFFICER FOX: No, but if you  
6 would identify anyone you're representing here today.

7 MS. HARANT: Peoria Families Against  
8 Toxic Waste.

9 HEARING OFFICER FOX: Thank you very  
10 much. We appreciate your comments.

11 MS. HARANT: Can I submit this?

12 HEARING OFFICER FOX: Yes, that's fine.

13 And Ms. Fox, we're ready for your  
14 comments, whenever you're ready to begin.

15 MS. FOX: Hi. I'm Tracy Fox from rural  
16 Peoria County. I also represent Peoria Families  
17 Against Toxic Waste.

18 Thanks to the Illinois Pollution Control  
19 Board for having these hearings, and thanks to the  
20 Illinois EPA for taking action, even though there  
21 have been years of delay on the federal coal ash  
22 rules. It is appreciated that we're moving forward.

23 When I read over the filing and the  
24 regulations that were submitted, I was a little bit

1     disconcerted, however. I think it's a great idea to  
2     avoid site-by-site plans and having to have, you  
3     know, 50 different battles going on in the State to  
4     protect waters. However, I feel like these are  
5     unnecessarily vague, and, also, I feel like they're  
6     very silent. They're only looking at groundwater  
7     and, to me, that doesn't make sense because a lot of  
8     the solutions that are contemplated in terms of  
9     preventative, in terms of cleanup, have to do with  
10    surface water as well.

11                 Specifically, I'm -- our group is a  
12    member of the Central Illinois Healthy Community  
13    Alliance, and we're concerned about the Edwards Coal  
14    Plant, and they are the coal ash ponds that are  
15    directly on the river and, to me, to contemplate that  
16    the regulations would allow a trench around the pond  
17    to be part of the solution makes absolutely no sense.

18                 Also, the lack of emergency protocols to  
19    deal with flooding. With recent flooding of the  
20    Illinois River, I called the Peoria County Health  
21    Department, I called the local EPA office to ask, is  
22    anybody looking at the coal ash ponds? And I  
23    couldn't even find anybody who went down to the  
24    plant. I would certainly hope that the regulations

1 would be expanded to talk about that.

2           The other thing that was disconcerting to  
3 me is that, to me, the presumptive thing has to be  
4 when these plants close, they get cleaned up. There  
5 should not be even a consideration, unless the  
6 company builds an extensive case, for some  
7 alternative arrangement.

8           To leave these plants with contaminated  
9 groundwater, to leave these plants with humped-over,  
10 you know, closed landfills, unlined landfills of coal  
11 ash, effectively leaves these plants in a state that  
12 they will never be redeveloped.

13           In my part of Peoria County, there are  
14 already enough businesses that have been shuttered  
15 and, it has been a struggle for years to clean up and  
16 redevelop.

17           Instead, you know, I think that we're  
18 contemplating when the Edwards plant closes, it needs  
19 to be in a state that it can be redeployed to offset  
20 the losses to the tax base to provide more jobs, etc.

21           As I went through and looked further, the  
22 other thing that was really glaring to me was the  
23 lack of requirement for financial assurances.

24           Peoria Families Against Toxic Waste has

1 worked on landfill issues for years. We know that at  
2 the time that hazardous waste landfill expansion was  
3 proposed, there was no one who was arguing against  
4 some sort of post closure care fund.

5 Similarly, in Peoria where we expanded  
6 the City/County Municipal Landfill, that was a key  
7 part of the proposal from all players.

8 As long as coal plants continue to  
9 operate in the State of Illinois, they should be held  
10 to similar standards. It's ridiculous that a  
11 for-profit entity would be allowed to push off the  
12 cost of post closure care on to citizens and  
13 communities. That is absolutely unacceptable.

14 Furthermore, the ten-year period seems  
15 woefully limited. For landfills, we have much longer  
16 and much more stringent requirements. I cannot  
17 understand why known toxics and unlined situations  
18 wouldn't be subject to longer periods of post closure  
19 care, rather than shorter.

20 Finally, just -- and not to nitpick at  
21 the report, but I was a little bit concerned when I  
22 looked at the references of how ancient most of the  
23 data that was cited is. In looking at the fly ash  
24 characterization, Illinois EPA's presenting

1 information from 1983. Pollution control technology  
2 has changed significantly since then, rendering  
3 dirtier ash and hopefully different fly ash  
4 characterization.

5 I would hope that we would look -- that  
6 Illinois Pollution Control Board would direct its  
7 scientists to look at some more current  
8 characterization studies.

9 The same thing is true for radiation.  
10 The radioactivity studies cited were from the '90s.  
11 The characterizations of sulfates were from the '90s.  
12 Both of those we know more about the health effects,  
13 we know more about the migratory effects, and none of  
14 that seems to be reflected in the proposal.

15 Finally, in terms of testing, and we went  
16 round and round with the different types of testing  
17 and leachate protocol as part of our fight against  
18 the hazardous waste stabilization, still being  
19 Peoria, and I was again very surprised to see nine  
20 references, some as old as 1976, the most recent in  
21 terms of 2009, when we know that the hole TCLP test  
22 methodology was redone just a few years ago.

23 So I would hope that again Illinois  
24 Pollution Control Board, please ask your staff to

1 direct IEPA to look at more current data.

2 I hope, also, that throughout this  
3 process, communication will improve. I was  
4 disappointed yesterday when I looked on the Illinois  
5 Pollution Control Board site, and none of the printed  
6 answers that were available today were available to  
7 me as a citizen to review, and so I don't get the  
8 opportunity to make comments after all of that is  
9 done.

10 Finally, I know that you're working with  
11 DCEO on a study. Well, please, I hope that the  
12 Illinois Pollution Control Board will direct DCEO to  
13 look at not only the cost to companies, but the  
14 long-term financial situation and how that the  
15 failure to clean up these plants will impact  
16 communities.

17 In Peoria County, that is a very real  
18 fear and concern. The townships don't know what's  
19 going to happen when a plant closes. The County  
20 Board is goosy about the loss of property tax  
21 revenue, and as long as this regulation doesn't  
22 ensure that it is restored back to a useable state  
23 for redevelopment, communities end up losing again,  
24 and I don't think anyone wants that.

1           Again, thanks for your time, thanks for  
2 your efforts, and thanks for indulging these overly  
3 long comments.

4           HEARING OFFICER FOX: Ms. Fox, I do have  
5 one clarification.

6           MS. FOX: Yes.

7           HEARING OFFICER FOX: The Agency was not  
8 required to prepare written answers and produce them  
9 this morning for the first time.

10           HEARING OFFICER FOX: I understand that.  
11 I just am saying that in order to be more open to the  
12 public, you know -- I mean, those answers are very  
13 clarifying for me because I'm not of a technical  
14 background, and so sometimes if I can read something  
15 explained two or three ways, I can get a better  
16 feeling of what's going on, you know, and I'm willing  
17 to do that work, but I can't do it in ten minutes.

18           HEARING OFFICER FOX: Very good. I know  
19 that there are written copies of it.

20           MS. FOX: I got copies of them. Thank  
21 you.

22           HEARING OFFICER FOX: Ms. Fox, thanks for  
23 your comment. We're ready for Ms. Shaw.

24           MS. SHAW: I do not wish to comment at

1 this time.

2 HEARING OFFICER FOX: Very good. The  
3 next is Ms. Borgia?

4 Ms. Borgia, if you would please spell  
5 your last name and identify anyone you're  
6 representing here this morning.

7 MS. BORGIA: My last name is spelled  
8 B-O-R-G-I-A, and I'm here representing the Prairie  
9 Rivers Network, and the Sierra Club, and families and  
10 children who are going to be affected by these -- by  
11 the effects of these coal plants not being cleaned  
12 up.

13 I am a resident of Central Illinois and  
14 have lived there for the past 30 years, and by  
15 training, I am an early childhood educator, and so  
16 it's of great concern to me about the long-term  
17 effects of the coal ponds not being cleaned up, and  
18 the danger of those ponds, then, leaking or breaking  
19 and our having situations like they have in North  
20 Carolina and Tennessee. That would just be horrible,  
21 and who would pay for that cleanup? Certainly,  
22 it's the -- the companies are not. The coal  
23 companies do not wish to have the expense of cleaning  
24 up the coal ponds. Well, neither do I. I do not

1 wish my taxpayer money to clean up after the fact and  
2 after it's too late.

3 My area of concern is for the Middle Form  
4 River in Vermilion County, and it has a coal pond  
5 sitting right on the edge of it that's now leaking.  
6 Its products are leaking into the Middle Fork River.  
7 I like to kayak on that river, and one beautiful  
8 thing we have on that river, among other things, are  
9 bald eagles, and I don't think they're going to be  
10 very happy once the fish in that area are  
11 contaminated with the heavy metals that will probably  
12 kill their young.

13 I'm also concerned that we have -- and I  
14 don't need to tell anyone in this room -- that our  
15 resources, our water resources in Central Illinois,  
16 are very limited. We only have a few rivers and  
17 streams. We don't have any large bodies of water for  
18 fish or for recreation or for drinking. We're not  
19 going to get anymore water. And so the cleaning up  
20 of these menaces that are likely to spoil what we  
21 have is just imperative, and so I am very happy that  
22 the proposed rules are published and people are given  
23 the opportunity to comment, but I think -- I hope  
24 that all of our citizen comments and all the

1 professional comments are taken seriously for the  
2 value that they have in making our rivers and our  
3 lands of Central Illinois last and be in a healthy  
4 condition.

5 HEARING OFFICER FOX: Ms. Borgia, thank  
6 you for your comments.

7 MS. BORGIA: Thank you.

8 HEARING OFFICER FOX: We're ready for  
9 Mr. Hobber.

10 And sir, if you could also for our court  
11 reporter, spell your name and let us know who you may  
12 be representing.

13 MR. HABBEN: My name is Rudolf Habben,  
14 R-U-D-O-L-F, Habben, H-A-B-B-E-N, and I am a resident  
15 of Peoria Heights, Illinois. I'm speaking for the  
16 Edwards Power Plant, and I prepared a letter that I  
17 would just like to hand in and then just make three  
18 short points for the presentation.

19 HEARING OFFICER FOX: If you would like  
20 to use that in making points, please do, and I can  
21 submit that to our Clerk as a written comment, sir.

22 MR. HABBEN: Okay. Do you want me to  
23 write them up or to speak them?

24 HEARING OFFICER FOX: If you would like

1 to use those comments to speak them, I can take a  
2 written copy when you're finished to submit them.

3 MR. HABBEN: Okay. I'm primarily  
4 interested in the Edwards Power Plant and the  
5 possibility of putting liners in this area, which is  
6 subject to flooding, and my concerns are in terms of  
7 water supply, if there is a flood and the  
8 contaminants to the river.

9 The one community that I understand that  
10 has its water intakes down the river is Canton,  
11 Illinois, and I know that there are studies that are  
12 showing that there are birth defects and so forth  
13 from these contaminants that are in the waste.

14 The second one is in terms of the  
15 environment, in terms if there is a leakage from  
16 these power plants in terms of impact on wildlife,  
17 both on the fish and on the wildlife that use the  
18 river in terms of a flyaway.

19 And then the third point is on these  
20 aging power plants. Edwards, I think, is almost 50  
21 years old, and there is a trend to move to gas in  
22 terms of power production, as well as nuclear and  
23 solar and so forth, and my question is on who takes  
24 the liability for these trashed plant areas when the

1 plant closes down?

2 So those are my comments.

3 HEARING OFFICER FOX: Thank you, sir, and  
4 I can take that copy and submit it to our Clerk as a  
5 written comment.

6 MR. HABBEN: Thank you.

7 HEARING OFFICER FOX: And  
8 Ms. Blumenshine, that brings us to your comments, if  
9 you're ready. And if you could also provide us with  
10 the spelling of your name and whomever you may  
11 represent today.

12 MS. BLUMENSHINE: Yes. Good day. Good  
13 morning. My name is Joyce, J-O-Y-C-E. Last name  
14 Blumenshine, B-L-U-M-E-N-S-H-I-N-E.

15 I'm a volunteer with Sierra Club. I live  
16 in Peoria. I'm part of the environmental groups here  
17 which has many areas along the Illinois River.

18 I appreciate the efforts that IEPA and  
19 your Pollution Board are making.

20 These proposed regulations are not strong  
21 enough. They have to be improved, they have to be  
22 strengthened, and here are some reasons why, as I see  
23 it, having been an area resident.

24 I'm concerned about the five coal-fired

1 power plants that impact the area where I live and  
2 the coal ash landfills that are there.

3 I was very happy to see under your  
4 background section that you list the heavy metals  
5 from these plants. But, however, there is a part  
6 that's missing, and that is: We, the people; you,  
7 the people, and everyone, and the long-term impacts  
8 on us, our children, our families, for generations to  
9 come from these heavy metals. Where is the social  
10 cost of these sites, that for decades, companies have  
11 been making profits from and people have jobs, but we  
12 know better now. We know these heavy metals have  
13 serious health impacts and they are long term for our  
14 environment.

15 So I have brought a few pictures to enter  
16 as exhibits just to point out.

17 There are some points in your rules that  
18 are grievously lacking, from my point of view. One  
19 of them is that you don't expect to redevelop  
20 groundwater monitoring that were repeat site  
21 investigations.

22 These areas have changed. As many of  
23 these plants were built in the '50s and '60s,  
24 communities have expanded. People have moved into

1 these areas. There are new water wells. There are  
2 new situations where people's health could be at  
3 risk.

4 I'm pointing out areas such as at that  
5 Powerton plant down by Pekin, which has a huge ash  
6 pond next to the river, or upriver is the Edwards  
7 Plant, as I mentioned; upwards from Peoria is the  
8 Hennepin plant. Peoria gets half of its water from  
9 intakes on the Illinois River. We are surrounded in  
10 Peoria by these power plants. There's the Duck Creek  
11 plant that's on the river bluff above the Illinois  
12 River. It has a pipe from its polluted boron ponds  
13 going into the middle of the river.

14 Nowhere do I see where the cumulative  
15 impacts on an area like the Peoria River Valley are  
16 being considered from the totality of all these  
17 different ash ponds -- and there are a lot and they  
18 are really big. You can drive down Route 24 and see  
19 that going from the ponds across Illinois Route 24  
20 when the wind's from the east.

21 I am concerned, too, about the  
22 Groundwater Management Zone. Let's get real and  
23 let's be honest. What happens when IEPA assesses and  
24 labels something in a Groundwater Management Zone?

1 Is that cleaned up? Is the pollution then totally  
2 contained from affecting the public for generations  
3 to come? I don't think so.

4 I think that your rules and review have  
5 to ensure that what is here for the future of our  
6 state is truly protective of the public and our  
7 health, and that the costs as referred to before  
8 won't be saddled onto the communities for generations  
9 to come when these sites are abandoned or left in a  
10 half-contained provision.

11 Capping of the ash ponds and other  
12 provision of latest and best technology should be  
13 included. I think that is lacking. And why aren't  
14 we expecting the best procedures for containment to  
15 be required?

16 In closing, I just want to mention, too,  
17 that it seems like monitoring networks that are  
18 installed before the Coal Combustion Waste Surface  
19 Impoundments begin operation, if those are utilized  
20 now, well, some of these are 50, 60 years old. Isn't  
21 it a fact that the monitoring networks and the  
22 monitoring wells have to be reassessed at every site?

23 Many places, as you will see from these  
24 Google satellite photos of the communities, are so

1 close now to these plants, conditions have changed  
2 dramatically since these sites have been approved.

3 Thank you for your time. I urge your  
4 every diligence to strengthen these rules.

5 HEARING OFFICER FOX: Ms. Blumenshine,  
6 are these captioned or identified with your name so  
7 that they can be associated?

8 MS. BLUMENSHINE: The top one is.

9 HEARING OFFICER FOX: Very good. Thank  
10 you very much, Ms. Blumenshine.

11 MS. BLUMENSHINE: Thank you.

12 HEARING OFFICER FOX: Those will be  
13 submitted to our Clerk as written comments.

14 MS. BLUMENSHINE: Thank you.

15 HEARING OFFICER FOX: We next have  
16 Ms. Favilla. And if you again would spell your name  
17 and let us know who you represent, please.

18 MS. FAVILLA: My name is Christine  
19 Favilla. It's F as in Frank, A-V-I-L-L-A, and I work  
20 for the Sierra Club. I'm the Three Rivers Project  
21 Coordinator in Madison, Jersey, and Calhoun Counties,  
22 where we serve over 700 members who live and recreate  
23 in our area.

24 I want to also thank the EPA for drafting

1 and filing Proposed Rules for Surface Impoundments  
2 Containing Coal Combustion Waste at Power Generating  
3 Facilities. However, the Sierra Club believes that  
4 these rules fall short of protecting Illinois  
5 communities from the serious harm that the coal ash  
6 pits pose to our waters, including surface, ground,  
7 and drinking water supplies.

8 I work, live, and am raising a family in  
9 Madison County, where the Wood River Dynegy plant has  
10 four active coal ash ponds, and only one is lined,  
11 and one has a high hazard dam.

12 We also have the Venice Dynegy plant,  
13 which has two ash pits, both are active and both are  
14 unlined.

15 In nine nearby water wells, there are  
16 exceedances of arsenic, and there are exceedances of  
17 magnesium in all of the wells in Venice.

18 After viewing the U.S. Forest Service  
19 Fish Biologist's, Dr. Lindley's study, it is clear  
20 that the surface impoundments pose a high biological  
21 risk, regardless of their location and design.

22 The rules need to be strengthened for the  
23 4.4 million tons of coal ash produced in Illinois  
24 each year. We need to account for the serious

1 citizen health problems from this waste. We need  
2 better monitoring and corrective action.

3 And personally, I've been concerned since  
4 2009, when a Peoria entity found potential  
5 groundwater contaminants in coal ash disposals at  
6 every site investigated.

7 We are gravely concerned about the heavy  
8 metals like lead, manganese, and arsenic in the coal  
9 ash because they cause cancer and brain damage.

10 Specifically, the Sierra Club believes  
11 there needs to be an assessment for surface water  
12 impacts and threats to surface water requiring the  
13 closure of impoundments that are causing groundwater  
14 standards to be degraded.

15 Complete removal of waste should also be  
16 considered as a closure strategy, moving the waste to  
17 high and dry landfills -- they currently are in  
18 floodplains behind a dam in my community -- requiring  
19 the definition of surface impoundment to include both  
20 holding and transferring of coal combustion wastes.

21 The rule needs the financial assurance  
22 for power companies to make sure that Illinois  
23 taxpayers are not left covering their bills. A  
24 complete business plan should go through the real

1 life cycles in all ventures, including the end of  
2 life cycle.

3 And finally, we urge the IEPA to provide  
4 a 60 day comment period on each company's plant to  
5 correct problems and close their plant.

6 Once again, I thank for the opportunity  
7 to bring these concerns to Southern Illinois  
8 residents to your attention. Many more people would  
9 liked to have come, but they were unable to get off  
10 of work to make the trip.

11 In working together with the EPA and  
12 other entities, we're sure that we can ensure the  
13 health of the Illinois residents with strong rules.

14 HEARING OFFICER FOX: Thank you for your  
15 comments.

16 We're ready for Ms. Garlish, and if we  
17 could ask you again to spell your name and let us  
18 know who you may be represent today.

19 MS. GARLISH: Robin Garlish,  
20 G-A-R-L-I-S-H, and I'm a member of Central Illinois  
21 Healthy Community Alliance.

22 I am a resident of Pekin Illinois, which  
23 is right across the river from the Edwards Plant that  
24 was just recently purchased with the five other

1 plants, and our community is just beginning to  
2 understand and learn what this is all about.

3           The Pekin area, I don't know if you -- I  
4 don't think you could ask one resident, if they have  
5 a family member with cancer, I don't think you could  
6 get one resident, one family, to say they don't have  
7 anybody with cancer in their family. It's become,  
8 and I believe it's been this way for quite a while.

9           I also am a mother of a 16-year-old who  
10 has chronic asthma since we had moved here from the  
11 San Francisco area, and she was born in 1998 at  
12 St. Francis in Peoria, and I thank you for this  
13 opportunity.

14           I am concerned for my daughter because,  
15 like many Midwesterners, we came here, and we boat,  
16 we water ski, we fish, and in the cities I've been in  
17 most of my life, there's warnings. There's radio,  
18 there's air warnings.

19           When I came to this river, you know, and  
20 I just assumed that there would be some type of  
21 State, federal warning, with the beaches, the  
22 river -- if you look in the spring, in the summer,  
23 and the fall, you see families fishing and swimming  
24 and boating and water skiing, and you don't -- they

1 haven't got a clue of what's going on, and the  
2 contaminants and the pollutants, the mercury, the  
3 lead, and it's just since I had walked into my first  
4 Central Illinois CIHCA meeting, it brought my fears  
5 to life. I just can't even imagine that this is not  
6 known to everybody in the area.

7           We live -- one thing that really, really  
8 just was profound to me, last year when we had the  
9 heavy flooding, we have a campground that is probably  
10 ten miles south of Pekin, and all the children do --  
11 we have the beach area. They have their life jackets  
12 on. We do the right things that we can for their  
13 health, but the State doesn't, and I don't understand  
14 that.

15           We helped the U.S. Corps of Engineers  
16 evacuate farmers, and I believe I -- I may be wrong,  
17 but I think this is the first time they evacuated  
18 that area. We watched the saturation in the levy,  
19 and when you go to the Edwards Plant ten miles back,  
20 that water from the flood was directly at the top of  
21 that levy.

22           I may be wrong, but I don't think there  
23 was any study of this. I don't think anybody  
24 checked, anybody recorded, or anybody tested

1 anything. We -- as we helped the farmers and the  
2 U.S. Corps of Engineers evacuate everybody, we could  
3 see the wet dirt in the levy where we were at.

4 This year, we have had record snow,  
5 record winter. I'm assuming that we're going to have  
6 the same type of flooding. It could even be higher.  
7 What are we going to do? Are we going to just stand  
8 by again? I just -- I can't believe that's  
9 happening.

10 I thank you guys, and I hope that I can  
11 help be a part of, you know, anything, any of this.  
12 These changes have got to happen. For my daughter  
13 and all other asthmatics, you know, we've got to make  
14 changes. We've obviously got to have changes.

15 Thank you.

16 HEARING OFFICER FOX: Thank you, ma'am.

17 Our Public Information Officer, Connie  
18 Newman, let me know shortly after the comments began  
19 that we did have someone arrive, Ms. Edmiston, who  
20 wished to offer a comment? Is she still present  
21 here? If she could raise her hand.

22 Ms. Edmiston, we're ready for you to  
23 offer a comment. If you could step up to the  
24 microphone, that will help everybody hear you very

1 well.

2 If you would start by spelling your name  
3 for us and letting us know who you represent. Feel  
4 free to take three minutes or so to offer your  
5 comments to us the Board.

6 MS. EDMISTON: I'm Katherine Edmiston.  
7 My last name is spelled E-D-M-I-S-T-O-N. I'm head of  
8 the group called Citizens Against Longwall Mining in  
9 Montgomery County, and we have the Deer Run Coal Mine  
10 operating in that county.

11 Now then, we're losing our streams in  
12 Illinois. I've watched this happen, oh, for the last  
13 five or six years. I've come down here to  
14 Springfield and testified at the Annual Meeting and  
15 asked how many miles of streams we have in Illinois.  
16 I didn't get a satisfactory answer for a long time.  
17 I figured it out from some information I've got.

18 Coal mining destroys streams. We all  
19 know that. You can't bring them back. They dig  
20 deep, deep ditches that farmers have to drive their  
21 tractors around to farm what's left of the field  
22 after they dig the deep ditches. We've seen it  
23 happen again and again.

24 Getting into the pollution and the water

1 situation. I'm really concerned. I'm a mother of  
2 three and a grandmother of seven, and I'm wondering  
3 what kind of a world my grandchildren are going to be  
4 living in.

5 The Deer Run Mine hasn't given the  
6 citizens the right to an administrative review of  
7 their Permit Number 399. For over four years, we've  
8 waited for it, and citizens are perfectly innocent  
9 for various minor reasons that have delayed this  
10 administrative review for a long time. People in  
11 Canton have had the same problem. It's drug out for  
12 many years by the IDNR.

13 But anyhow, we're concerned about waste  
14 impoundments at those mines in Montgomery County that  
15 are going to leak. They're lined with plastic  
16 liners. It's chocked full of coal ash, but plastic  
17 liners don't last forever, folks. We all know that.

18 There's been a book that came out,  
19 Everything In Its Path. A member of my group got it  
20 and loaned it to me, and it will open your eyes as to  
21 what happens when these waste impoundments give way.

22 We have one within the city limits of  
23 Hillsboro. What it does to groundwater when all that  
24 coal ash spills out of there, it destroys everything

1 in its path. It's a scary book, frankly. I wouldn't  
2 read it at night before I went to sleep. It's a very  
3 vivid description of what happened out in North  
4 Carolina when this waste impoundment gave way and  
5 killed people, and we have one now that this mine is  
6 operating, Deer Run Mine, even without citizens being  
7 allowed to testify in administrative review, and  
8 they've got one waste impoundment and they have  
9 applied for another one that was so big that they had  
10 to get a separate permit for it. It can't be a  
11 significant revision of a regional permit.

12           And so we have -- and they're building  
13 high hazard dams and out of coal waste -- not clay,  
14 but high hazard dams -- and there are other  
15 classifications of dams. We've read about those,  
16 too, in books; moderate and leads. But they high  
17 hazard dams, folks, and they've told us, oh,  
18 that's -- oh, that's the best kind. That's the best  
19 kind we can manage. Well, we know better. It's  
20 something to think about when it comes to water  
21 pollution, isn't it?

22           There's been a recent break of a dam,  
23 Duke Energy in North Carolina. That was just  
24 recently. And then we've had West Virginia, river

1 water contaminated for toxic chemical spills.

2 You know this happens quite frequently,  
3 and we're not unaware of those happenings in other  
4 states. This is something we need to think about.

5 Coal ash from power plants. I read also  
6 recently that there's about 100 of these waste  
7 impoundments in Illinois. This coal ash is a  
8 problem. It's highly contaminated. It's got arsenic  
9 and all sorts of chemicals in it.

10 In our group, we have a retired chemistry  
11 teacher, who keeps us very well informed of the water  
12 pollution and the possibilities in our county.  
13 Something's got to be done.

14 And thank you for this opportunity to let  
15 the Illinois Pollution Control Board know our  
16 feelings on this.

17 HEARING OFFICER FOX: Ms. Edmiston, thank  
18 you for your comment, which is in the transcript of  
19 the hearing and the record today. We thank you for  
20 your comment.

21 My expectation, in checking with  
22 Ms. Newman, is that no one else wishes to comment or  
23 has signed in wishing that they would like to do so.

24 Ms. Shaw, did you want to revisit your

1 conclusion? I'm seeing that you are saying that you  
2 are not wishing to comment at this time.

3 Having wrapped those up, we're ready to  
4 turn to the Agency.

5 Ms. Olson, is the Agency ready to  
6 introduce itself for the record and have its  
7 witnesses sworn in?

8 MS. OLSON: Yes, we are. Thank you.

9 HEARING OFFICER FOX: Very good. Please,  
10 go ahead.

11 MS. OLSON: My name is Joanne Olson. I  
12 am Assistant Counsel here at Illinois EPA, and, first  
13 of all, I want to thank the Board for accepting our  
14 proposal and holding this hearing today.

15 The Agency developed this rule in  
16 response to a site-specific rulemaking that was filed  
17 by Ameren in April of 2013. Ameren's rulemaking  
18 contained provisions that applied to 16 ash ponds at  
19 eight different facilities.

20 In contrast, the proposal that Illinois  
21 EPA proposes is of general culpability and covers all  
22 coal combustion waste surface impoundments and power  
23 generating facilities in the State of Illinois.

24 Under the Agency's proposed rules, we

1 include provisions for groundwater monitoring, weekly  
2 inspection, annual reports, preventive response,  
3 corrective action, and closure.

4 Under the Agency's proposal, the owner or  
5 operator of a coal combustion waste surface  
6 impoundment had three options when the groundwater  
7 monitoring showed an exceedance of the groundwater  
8 quality standards: They can demonstrate that the  
9 coal combustion waste surface impoundment did not  
10 cause that exceedance; they can provide a corrective  
11 action to remediate that exceedance, or they can  
12 close the surface impoundment.

13 The Agency does not intend these proposed  
14 rules to cover impacts to surface water, as this is  
15 covered in Subtitle C of the Board's regulations.

16 Air emissions: This is covered in  
17 Subtitle B of the Board's regulations.

18 Dam safety: This is covered by the  
19 Illinois Department of Natural Resources regulations.

20 The Agency has four witnesses here today,  
21 and I'd like to give them a chance to introduce  
22 themselves.

23 MR. COBB: Rick Cobb, and I'm the Deputy  
24 Division Manager, Division of Public Water Supplies,

1 and I'm also the Manager of the Groundwater Section  
2 of the Bureau Water.

3 MS. ZIMMER: I'm Amy Zimmer. I'm a hydro  
4 geologist in the groundwater section of the Bureau of  
5 Water. I work for Mr. Cobb.

6 MR. BUSCHER: I'm Bill Buscher. I'm the  
7 Manager of the Hydrogeology and Compliance Unit, and  
8 I also work for Mr. Cobb.

9 MR. DUNAWAY: My name is Lynn Dunaway.  
10 I'm also in the groundwater section, Bureau of Water,  
11 and I am a geologist.

12 MS. OLSON: In addition, here today is  
13 another member from the Division of Legal Counsel.

14 MR. JENNINGS: I'm James Jennings. I'm  
15 like Ms. Olson, Assistant Counsel with the Illinois  
16 EPA.

17 MS. OLSON: The Agency has prepared five  
18 exhibits that they would like to move into the record  
19 at this time.

20 HEARING OFFICER FOX: Terrific. Why  
21 don't we ask you to identify those, and we can assign  
22 them numbers and entertain motions, Ms. Olson.

23 MS. OLSON: I have marked the Pre-filed  
24 Testimony of Lynn Dunaway as Exhibit 1; the Pre-Filed

1 Testimony of Amy Zimmer as Exhibit 2; the Pre-Filed  
2 Testimony of Bill Buscher as Exhibit 3; the Pre-Filed  
3 Testimony of Richard Cobb as Exhibit 4; and I have  
4 marked as Exhibit 5 what is entitled Pre-Filed  
5 Answers of the Illinois Environmental Protection  
6 Agency.

7 (Exhibit Numbers 1 through 5  
8 were marked for identification.)

9 HEARING OFFICER FOX: And to clarify for  
10 the record, those Responses are to the questions that  
11 have been pre-filed on February 5th by the various  
12 participants in this hearing; is that correct,  
13 Ms. Olson?

14 MS. OLSON: That is correct.

15 HEARING OFFICER FOX: Very good. Is  
16 there a motion?

17 MS. OLSON: At this time I'd move to  
18 enter Exhibits 1 through 5 into the record.

19 HEARING OFFICER FOX: Having heard  
20 Ms. Olson's motion to admit those five documents into  
21 the record, is there any objection to it?

22 MS. DEXTER: I have a question. Does  
23 Exhibit 5 include the packet of exhibits called  
24 Exhibit List --

1 MS. OLSON: Yes.

2 MS. DEXTER: -- attached to it? It's all  
3 part of it?

4 MS. OLSON: Yes.

5 HEARING OFFICER FOX: There is a list of  
6 exhibits in the exhibits themselves; is that correct?

7 MS. OLSON: Yes. The attachment --  
8 Exhibit 5 contains four attachments, and those are  
9 the Responses to the questions that were pre-filed.  
10 In responding to the pre-filed questions, there were  
11 instances where we were asked to provide additional  
12 information, and those are attached as exhibits, and  
13 those are Exhibits A through P, as opposed to these  
14 are exhibits in number form.

15 HEARING OFFICER FOX: And Exhibit Number  
16 5 encompasses all of the documents that you referred  
17 to, both the attachments and the exhibits.

18 MS. OLSON: That is correct.

19 HEARING OFFICER FOX: Very good.

20 Again, you've heard the motion. I've  
21 heard no objection to that, and the exhibits that  
22 were the subject of Ms. Olson's motion will be  
23 admitted into the record with the exhibit numbers as  
24 she listed them in her motion. Ms. Olson thank you

1 for producing those.

2 (Exhibit Numbers 1 through 5

3 were admitted into evidence.)

4 Ms. Olson, did you have any other  
5 documents you wish to admit in the record as hearing  
6 exhibits?

7 MS. OLSON: Not at this time.

8 The Agency is happy to go over the  
9 responses to Exhibit 5 and answer any other questions  
10 that may be presented.

11 HEARING OFFICER FOX: Very good. We can  
12 turn to that?

13 We're going to begin with Ms. Franzetti,  
14 as we have determined before the hearing began, and  
15 we can take that up as we get under way with the  
16 answers themselves.

17 At this point, is the Agency ready to  
18 swear in its witnesses so that they're all poised to  
19 respond to the questions?

20 MS. OLSON: Yes.

21 HEARING OFFICER FOX: Very good. If the  
22 court reporter would do so, please.

23 (Witnesses sworn.)

24 Very good. Anything further, Ms. Olson?

1 MS. OLSON: No, not at this time.

2 HEARING OFFICER FOX: Very good.

3 And as I mentioned, in discussing  
4 procedural issues before the hearing began, we will  
5 begin with the questions filed by Midwest Gen, as  
6 they were the first to be filed on the deadline.

7 Ms. Franzetti appears to be making her  
8 way to the front so that she can begin working  
9 through those, and we'll give her a moment to get  
10 settled.

11 If I may make a quick housekeeping  
12 comment. The Agency's answers which were provided to  
13 the participants earlier today have been available to  
14 the other participants, at least for a short time, to  
15 review.

16 I understand that Ms. Franzetti has had a  
17 chance to look at them and is prepared to go through  
18 them, asking questions and perhaps summarizing them  
19 for the clearest possible record and indicating  
20 whether the written answer is sufficient, or whether  
21 she has some additional clarification or some  
22 follow-up questions.

23 Have I summarized that clearly,  
24 Ms. Franzetti?

1 MS. FRANZETTI: You have, except I only  
2 got to page 9, but I also wanted to listen to the  
3 comments. So I got that far.

4 HEARING OFFICER FOX: Very good.

5 MS. FRANZETTI: I'll do my best to move  
6 it along as quickly as I can.

7 HEARING OFFICER FOX: We certainly have  
8 sworn in the witnesses. I'm sure they're ready to  
9 take care of your questions.

10 Did you have -- the written questions  
11 that you filed are, of course, in the Board's  
12 records. Did you have a copy of them to introduce as  
13 a hearing exhibit today? As I mentioned, they're in  
14 the record, Ms. Franzetti. That was merely an option  
15 I wanted to make available.

16 MS. FRANZETTI: Okay. You know, I don't  
17 know if I have a clean copy. Give me just a second.  
18 I don't think I do, but we can always get you one.

19 HEARING OFFICER FOX: That's fine. We  
20 can certainly turn to the substance of those  
21 questions, Ms. Franzetti.

22 MS. FRANZETTI: We have a clean one.

23 HEARING OFFICER FOX: Very good. I can  
24 certainly entertain a motion.

1 MS. FRANZETTI: I would move to introduce  
2 that as Exhibit 6.

3 HEARING OFFICER FOX: Very good.

4 Ms. Franzetti has moved to introduce into  
5 the record of this hearing as Exhibit Number 6 a  
6 document entitled Midwest Generation, LLC's,  
7 Questions for the Illinois EPA Witnesses.

8 Is there any objection to the motion to  
9 admit that document into our record here this  
10 morning?

11 Neither seeing or hearing any,  
12 Ms. Franzetti, please consider it as admitted as  
13 Exhibit Number 6, and when you are ready to begin  
14 with your first question, please go ahead and do so.

15 (Exhibit Number 6 was marked for  
16 identification and admitted into  
17 evidence.)

18 MS. FRANZETTI: For the court reporter's  
19 benefit, my name is Susan Franzetti,  
20 F-R-A-N-Z-E-T-T-I. I am appearing today as counsel  
21 for Midwest Generation, and I'm being assisted -- to  
22 my right is Maria Race, R-A-C-E, of Midwest  
23 Generation, and to my left is Richard Gnat, G-N-A-T,  
24 of the consulting firm, KPRG.

1           Okay. With that, I'll turn to the first  
2 question. This one I think I can just summarize.

3           I had asked whether proposed Part 841  
4 rules establish a new permit program, and the Agency  
5 has responded no.

6           Moving to question 2. This one I do have  
7 some follow-up. The question's regarding the answer,  
8 so I think maybe this one I'll ask a question and you  
9 can read your response.

10           At page 15 of Mr. Cobb's pre-filed  
11 testimony, he states that, quote: If a numerical  
12 standard set forth in Section 620.410 or 620.430 is  
13 exceeded at an existing or new CCW unit, the  
14 appropriate remedy is corrective action under 35 Ill.  
15 Adm. Code Section 620.250, end quote. What is the  
16 appropriate remedy if the exceedance is caused by a  
17 CCW unit that was closed before the effective date of  
18 these rules?

19           MR. DUNAWAY: This is Lynn Dunaway. If  
20 the exceedance occurred or continued after the  
21 effective date of these rules and the CCW surface  
22 impoundment is not otherwise excluded by Section  
23 841.105, either Subpart C for corrective action or  
24 Subpart D for closure would apply.

1           If a CCW surface impoundment is not  
2 subject to the proposed part, but is causing  
3 exceedance of a groundwater quality standard,  
4 corrective action is still the appropriate remedy,  
5 but the corrective action will not be under proposed  
6 Part 841.

7           MS. FRANZETTI: Mr. Dunaway, can you just  
8 expand on that to explain what would it be under if  
9 it's not -- if the corrective action is not under the  
10 proposed 841 rule?

11           MR. DUNAWAY: It could be under another  
12 program. It could be under Part 620.

13           MS. FRANZETTI: It could be under the  
14 site remediation program, for example?

15           MR. DUNAWAY: Potentially.

16           MS. FRANZETTI: Okay. So based on this  
17 answer, am I correct that the rules will have a  
18 retroactive effect regarding closed CCW units, and  
19 there does not seem to be any temporal limitation on  
20 that. If it was closed 30 years before these rules  
21 became effective, but the Agency believes the impact  
22 to the groundwater is due, in whole or in part, to  
23 that closed CCW, then they could still be subject to  
24 these rules for corrective action.

1 MR. DUNAWAY: If a closed CCW impoundment  
2 is impacting groundwater, it would still be subject  
3 to these regulations.

4 MS. FRANZETTI: Right. No matter how  
5 long ago that CCW unit was closed, correct?

6 MR. DUNAWAY: Correct.

7 MS. FRANZETTI: Okay. Is the -- is it  
8 different, however, if when that CCW unit stopped  
9 being used, the CCW material was removed from the  
10 unit?

11 MR. DUNAWAY: Can you repeat that  
12 question, please?

13 MS. FRANZETTI: Is your answer different  
14 if when the old CCW unit ceased being used or was  
15 closed. I'm trying not to limit it to closed. That  
16 may have a different connotation, particularly under  
17 these rules.

18 So it ceased being used but all of the  
19 CCW material was removed, including any leachate, is  
20 that different, then, potentially under -- as to  
21 whether these rules apply?

22 Take your time. If you need to consult  
23 with your colleagues, please feel free.

24 MR. DUNAWAY: Okay. Does this -- is

1 there still groundwater contamination associated with  
2 that unused impoundment?

3 MS. FRANZETTI: For purposes of this  
4 question, assume that the Agency, at least, takes  
5 that position.

6 MR. DUNAWAY: Then it would still be  
7 subject to these rules.

8 MS. FRANZETTI: Okay.

9 MS. OLSON: Can I ask a follow-up  
10 question?

11 MS. FRANZETTI: Sure.

12 MS. OLSON: Can you flip to Section  
13 841.105? I asked the witness to turn to Section  
14 841.105 of the proposed rules.

15 MR. DUNAWAY: Okay.

16 MS. OLSON: Can you read Subsection A,  
17 please?

18 MR. DUNAWAY: Except as specified in  
19 Subsection B of this section, this part applies to  
20 all surface impoundments at power generating  
21 facilities containing coal combustion waste or  
22 leachate from coal combustion waste that are operated  
23 on or after the effective date of these rules, or not  
24 operated after the effective date of these rules, but

1 whose coal combustion waste or leachate from coal  
2 combustion waste causes or contributes to an  
3 exceedance of the groundwater quality standards on or  
4 after the effective date of these rules.

5 MS. OLSON: So looking at Subsection A,  
6 isn't it true that if the power generating  
7 facility surface impoundment does not contain coal  
8 combustion waste, or leachate from coal combustion  
9 waste, these rules would not apply?

10 MR. DUNAWAY: Yes.

11 MS. FRANZETTI: Thank you, Counsel. That  
12 was one of the points I was trying to clarify. I  
13 appreciate it.

14 Okay. Moving on to --

15 MS. DEXTER: May I ask a follow-up on  
16 this?

17 MS. FRANZETTI: Sure.

18 MS. DEXTER: So in Part II in Section  
19 841.105, it's -- what you just read, it says "causes  
20 or contributed to an exceedance of the groundwater  
21 quality standards on or after the effective date of  
22 those rules," and as I'm reading in the pre-filed  
23 testimony in Cobb, page 10, it describes Section 2 as  
24 having groundwater contamination attributable to the

1 unit prior to the effective date of these rules.

2 So my question is, are we standing by the  
3 draft? I just want to clarify that if IEPA discovers  
4 groundwater contamination at a unit that is not  
5 operating in five years from now, it would still  
6 be --

7 MR. COBB: I answered that in another  
8 question, and it was actually my mistake. It was a  
9 misquote from what was in the -- filed in the TSD. I  
10 was trying to think of the name, sorry, the Technical  
11 Support Document. That was my mistake. And that is  
12 answered in these questions because you answered the  
13 same question so -- or asked the same question  
14 elsewhere.

15 MS. DEXTER: Great. Thank you.

16 MS. FRANZETTI: Question 3.

17 Is it correct that the purpose of the,  
18 quote, alternate cause demonstration, end quote, is  
19 to remove from the scope and applicability of these  
20 proposed Part 841 regulations such alternate causes  
21 of impacts to groundwater?

22 Would you read your answer? I have a  
23 follow-up question.

24 MS. ZIMMER: No. Showing an alternative

1 cause of impacts to groundwater other than the unit  
2 does not remove a facility from the applicability of  
3 the rules. It means that the facility would not be  
4 required to take corrective action under proposed  
5 Part 841 on that particular exceedance.

6 MS. FRANZETTI: What I'd like you to  
7 clarify, Ms. Zimmer, is when you say that it doesn't  
8 remove a facility from the applicability of these  
9 rules, are you referring there to the fact that there  
10 is still a CCW unit there that is going to be subject  
11 to these rules?

12 MS. ZIMMER: Yes.

13 MS. FRANZETTI: Okay. But the alternate  
14 cause of the impact to groundwater falls outside of  
15 the scope and applicability of these rules, correct?

16 MS. ZIMMER: I'm not sure I totally  
17 understand the question. The alternative --

18 MS. FRANZETTI: Don't answer a question  
19 you don't understand. Let me help.

20 What we're trying to understand is both  
21 the purpose and effect of the proposed provision in  
22 the rules that is termed the "alternate cause  
23 demonstration," okay?

24 MS. ZIMMER: Okay.

1 MS. FRANZETTI: And so assume for  
2 purposes of my question that the owner or operator  
3 successfully shows that the impact to groundwater is  
4 due to an alternate cause. Then is that situation,  
5 the impact to groundwater, caused by that alternate  
6 cause dealt with outside of these proposed rules? Is  
7 that the Agency's intent?

8 MS. ZIMMER: Yes.

9 MS. OLSON: May I ask a follow-up  
10 question?

11 MS. FRANZETTI: Uh-huh.

12 MS. OLSON: When you say -- so they're  
13 only outside these rules if they don't follow the  
14 applicability section of 841.105; is that correct?

15 MS. ZIMMER: Yes.

16 MS. OLSON: So if a facility falls within  
17 the applicability section of 841.105 and then later  
18 has an exceedance of the groundwater quality  
19 standards, would they then use the alternative cause  
20 demonstration possibly to show that it wasn't from  
21 their source?

22 MS. ZIMMER: Yes.

23 MS. OLSON: And after they successfully  
24 show that it wasn't from their source, are they still

1 subject to these rules?

2 MS. ZIMMER: Yes.

3 MS. OLSON: Thank you.

4 MS. FRANZETTI: I don't want to beat it  
5 to death, but I'm not sure the point that you were --  
6 you're making, Ms. Olson -- and we're just trying to  
7 understand it.

8 When you say it's still subject to these  
9 rules, do you mean the impoundment is still subject  
10 to the rules? Because that's what we think, but we  
11 also read the rules to say that when it's -- when the  
12 groundwater exceedance you're picking up, at whatever  
13 the monitoring level is, is shown to be due to  
14 something other than that impoundment, then the owner  
15 or operator doesn't address it under these rules;  
16 they address it outside of these rules, whether it's  
17 the site remediation program, you know, whatever.

18 That's what we're trying to understand.  
19 I'm not trying to trick you. We're just really  
20 trying to understand.

21 MS. ZIMMER: The impoundment would still  
22 be -- the impoundment would still be subject to these  
23 rules. The exceedance would not need to be active.  
24 This particular exceedance you're describing where

1 you successfully prove it's an alternative source for  
2 that particular exceedance would not have to take  
3 corrective action.

4 MS. FRANZETTI: Right. Okay. Thank you.

5 Moving on to question 4. This is one I  
6 don't have a follow-up or clarifying question on.  
7 It's a little lengthy. What would you like me to do?

8 HEARING OFFICER FOX: Could you,  
9 Ms. Franzetti, just to frame the issue, briefly  
10 summarize your question? I can see that the Agency  
11 began with a one-word answer that might clarify that  
12 very nicely.

13 MS. FRANZETTI: Okay. I'm just going to  
14 jump to the end of my question.

15 My question was, is it correct that under  
16 the proposed rules, as long as an owner or operator  
17 has demonstrated compliance with the Part 620  
18 groundwater standards, the corrective action can be  
19 terminated?

20 And the Agency's answer was: No, because  
21 generally the owner or operator will be expected to  
22 complete all the requirements of an approved  
23 corrective action, but the owner or operator could  
24 seek to modify their corrective action plan subject

1 to review and approval by the Agency.

2 Moving on to question 5, I also don't  
3 have any follow-up questions here. I'll try and  
4 summarize.

5 I asked for an explanation under the  
6 proposed rules as to whether it is the applicable  
7 groundwater compliance standards -- I'm sorry --  
8 whether the applicable compliance standards are the  
9 Part 620 groundwater standards, the background  
10 concentrations, or both.

11 The Agency's response is that the Part  
12 620 groundwater quality standards include  
13 nondegradation and numeric limits, and so in  
14 evaluating compliance, the Agency's going to look at  
15 both the nondegradation standard, as well as the  
16 numeric limits.

17 Moving on to question 6. Similarly, I  
18 don't have any follow-up questions here. I had asked  
19 the Agency to provide some examples of how the result  
20 of preventive response, corrective action, or closure  
21 under these proposed rules would require the operator  
22 to submit an application to revise an NPDES permit,  
23 and in its answer, the Agency gave several examples,  
24 some of which include where the corrective action is

1 going to result in some sort of discharge to a  
2 surface water where it might involve rerouting a  
3 discharge stream or a location of a discharge  
4 outfall, if the corrective action would involve  
5 changing or modifying the NPDES permit to allow storm  
6 water to be directed to another impoundment; or if  
7 the closure plan or the corrective action plan  
8 involves construction that disturbs more than one  
9 acre, a construction storm water permit may also be  
10 needed.

11 Moving on to question 4 -- sorry; I'm  
12 sorry -- question 6, small (a). The question  
13 involved whether the Agency, based on its review of  
14 the preventive response, corrective action, or  
15 closure activities should indicate or require the  
16 owner or operator to apply to revise its NPDES permit  
17 as necessary as a result of any of these actions when  
18 the Agency believes that any part of those approved  
19 activities, in fact, triggers the need to modify an  
20 existing NPDES permit.

21 And the Agency responded: No, that  
22 owners or operators are responsible for having the  
23 appropriate NPDES permit.

24 Question (b) is: If the owner or

1 operator fails to recognize that something in its  
2 preventive response, corrective action or closure  
3 under these proposed rules may, in fact, trigger the  
4 need to modify an existing NPDES permit, then is the  
5 owner or operator out of compliance with proposed  
6 Section 841.150 and, in fact, subject to potential  
7 enforcement because they failed to recognize that  
8 they needed to seek a modification of their NPDES  
9 permit? And the Agency answers: Yes, and they could  
10 pursue enforcement action for that.

11 Moving to (c): Does Section 841.150  
12 potentially and unnecessarily duplicate requirements  
13 under existing regulations for state operating  
14 permits or NPDES permits and/or the provisions of  
15 those permits which specify when an application to  
16 revise or modify the permit is required?

17 The Agency responded: Yes, and that they  
18 included this provision merely to provide a check or  
19 cross reference with respect to existing NPDES permit  
20 requirements and that this was recommended to the  
21 Agency during stakeholder outreach, but they had no  
22 objection to removing this section if the Board  
23 chooses.

24 Here's my concern. Here's one of the

1 reasons why I'm asking these questions. It's not  
2 unusual in Agency enforcement actions for a single  
3 act to cite every place -- in the regs, in the Act --  
4 that deal with that same action or failure to act,  
5 and hence, I am concerned that when you put the same  
6 requirement into more than one place under Board  
7 regulations, and I have no issue with making a cross  
8 reference to help the reader know where to go to find  
9 out more about whether you need to modify your NPDES  
10 permit, but I don't think the same requirement  
11 regarding when you need to modify or seek a  
12 modification of an NPDES permit should be in two  
13 places, but particularly outside of the NPDES portion  
14 of the regulations or part of the regulations.

15 So would the Agency agree to consider a  
16 change that effectuates the cross reference but  
17 doesn't make it a separate obligation under these  
18 rules?

19 MR. COBB: Well, as we said, we were  
20 intending it to be a matter of a cross reference  
21 because it does take different levels of expertise to  
22 review those plans.

23 MR. ARMSTRONG: Can I ask just a  
24 follow-up question? Andrew Armstrong with the

1 Environmental Law and Policy Center.

2 I believe I was probably one of the  
3 stakeholders who recommended that provision to the  
4 Agency, so I have an interest in it.

5 MS. FRANZETTI: So it was you.

6 (Laughter.)

7 MR. ARMSTRONG: Can I get an  
8 understanding here of how the NPDES permit relates to  
9 the approval of a corrective action plan?

10 Under the rules, is it the Agency's  
11 intent that a corrective action, preventive response,  
12 or a closure plan can be approved under these rules  
13 before there's an application for a NPDES permit?

14 MR. COBB: They're separate. And, in  
15 fact, if you go back to page 3 of 39 of the Responses  
16 to Midwest Gen's questions -- oh, I apologize. If  
17 you look at the -- I'm not sure how to reference it.  
18 Is it Response to Question 6(a) from Midwest  
19 Generation?

20 In the example for Hutsonville, the  
21 corrective action there required hydraulic  
22 containment for the Hutsonville example, and  
23 therefore required a NPDES permit to deal with that  
24 discharge, but they were separate. The NPDES matter

1 is still being dealt with according to how NPDES  
2 operates.

3 MR. ARMSTRONG: So to --

4 MR. COBB: And some of your colleagues  
5 participated in that rulemaking.

6 MR. ARMSTRONG: So to try to get a better  
7 sense of the timing, then, so if the -- if there's a  
8 discharge from the hydraulic containment system and  
9 there's a NPDES permit required for that, at what  
10 point is there an anti degradation analysis for the  
11 new discharge from the water side of things relative  
12 to the Agency's approval of the hydraulic containment  
13 system?

14 MR. COBB: As we said in the Hutsonville  
15 hearing, that's handled through the NPDES permitting  
16 process.

17 MR. ARMSTRONG: Right. But I'm just  
18 trying to understand.

19 MR. COBB: That is what is done at the  
20 time prior to getting your permit, which makes sense  
21 for an anti deg.

22 MR. ARMSTRONG: The situation that we're  
23 just trying to understand here is, what if there's a  
24 situation where you go through a NPDES permitting

1 process and you do an anti degradation analysis, and  
2 that analysis tells you that you cannot contribute  
3 any more pollutants to that waterway. How does that  
4 affect the hydraulic containment system in the  
5 Hutsonville example?

6 MR. COBB: Very simple. You have to come  
7 back and -- come back with a different corrective  
8 action plan to have the Agency review, if that isn't  
9 an option, and I think that's where we can modify  
10 those corrective action plans.

11 MR. ARMSTRONG: Okay.

12 HEARING OFFICER FOX: Anything further,  
13 Mr. Armstrong?

14 MR. ARMSTRONG: Not right now. Thank  
15 you.

16 HEARING OFFICER FOX: Very good. I  
17 think, Ms. Franzetti, we're ready to turn back to  
18 you.

19 MS. FRANZETTI: All right.

20 I'm going to move to question 7, and I'm  
21 still in the general questions to the Agency, not to  
22 a particular witness.

23 I do have some follow-up questions on  
24 this one, so I'll read my question and you go ahead

1 and read your answer.

2 Did the Agency consider reducing the list  
3 of chemical constituents that are required to be  
4 monitored to match the shorter list of chemical  
5 constituents that the proposed federal rules for CCW  
6 surface impoundments require and, if so, why did the  
7 Agency decide not to reduce the list of chemical  
8 constituents for which monitoring is required?

9 MR. COBB: Rick Cobb. Yes. The Agency  
10 considered it and rejected it for several reasons.

11 One, Illinois has groundwater quality  
12 standards for chemical constituents at Part 620 that  
13 must be met onsite and offsite at these facilities  
14 that apply right now. Two, USEPA's list of  
15 constituents do not apply right now. Three, the  
16 Agency has a significant amount of groundwater  
17 quality data for sites that USEPA may not have. And  
18 fourth, we put in a provision to reduce sampling to  
19 semiannual from quarterly if things are not being  
20 detected.

21 MS. FRANZETTI: Okay. Mr. Cobb, I want  
22 to ask you about this. Your point number 3 there  
23 that the Agency has a significant amount of  
24 groundwater quality data for these sites that USEPA

1 may not have.

2           With respect to that data and for the  
3 constituents that are included in these proposed  
4 rules through the Part 620 standards but are not on  
5 the proposed federal list of constituents to be  
6 monitored, does the Agency's data show that those  
7 constituents are typically exceeded, or sometimes  
8 exceeded and, if so, can you identify which ones, and  
9 again due to CCW impoundments.

10           MR. COBB: Yeah. In the technical  
11 support document in my section of that document, I  
12 provided statistics for the types of contaminants  
13 that we found thus far at all of the facilities  
14 across the state, and also in pre-filed testimony,  
15 Attachments 1 through 14 in my pre-filed testimony, I  
16 included all of the facilities for which we found  
17 groundwater quality standard exceedances for which we  
18 also sent violation notices, or subsequently in some  
19 cases, having referred for notice of intent to pursue  
20 legal action.

21           So that data has been provided in not  
22 only the Technical Support Document, but also my  
23 pre-filed testimony.

24           MS. FRANZETTI: Okay. So if I look

1 through all that, I'll be able to figure out which of  
2 the constituents that are not on the federal proposed  
3 monitoring list the Agency's data indicates have, in  
4 fact, been detected at levels above the Part 620  
5 standards in which you believe to be due to CCW.

6 MR. COBB: Right.

7 MS. FRANZETTI: All right. Now, am I  
8 correctly understanding that the best one can do as  
9 an owner or operator to reduce the number of  
10 constituents that are monitored for at each of the  
11 monitoring wells, even if over repeated monitoring,  
12 it's non-detect, non-detect, non-detect, I am still  
13 going to have to continue, as long as that unit's  
14 operating, to sample for those parameters at least on  
15 a semiannual basis.

16 MR. COBB: Yes.

17 MS. FRANZETTI: Okay. Did you give  
18 consideration to the approach that is taken under the  
19 NPDES permitting program where, just as with the Part  
20 620 groundwater standards, we have a lot of surface  
21 water quality standards, and we don't make NPDES  
22 discharges, continue to sample their discharges,  
23 whether it's multiple outfalls or single outfalls, on  
24 a semiannual basis, year after year after year, when

1 sampling data has shown that it's non-detect for  
2 those parameters.

3 I don't understand the difference the  
4 Agency's taking as between discharges to surface  
5 water and groundwater.

6 MR. COBB: Although most of the  
7 processes, I think, remain in a pretty steady state  
8 in things that are being discharged to surface water,  
9 and the dynamics of what goes into surface water is  
10 going to be completely different than groundwater  
11 because it's such long term. Because we're possibly  
12 concerned that the source material for the coal  
13 combustion waste could possibly change over the time  
14 into the future, we want to continue to try to  
15 monitor for the contaminants that could show up.  
16 Internal monitoring wells, you know, have shown other  
17 types of contaminants, but downgradient points of  
18 compliance have not.

19 You could also possibly get certain  
20 changes in operations or, once again, that may lead  
21 to different contaminants that possibly may be going  
22 in, and that's why we decided to keep it broad.  
23 Although we did remove the organics, we removed the  
24 radionuclides, and I think in this proceeding we're

1 recommending you can remove the perchlorate, or we're  
2 referencing that to the Board for consideration.

3 MS. FRANZETTI: But if there are changes  
4 in the operations that would impact influent to these  
5 CCWs, you could instead provide in these rules that  
6 the owner or operator has to notify you of such a  
7 change in its operations and advise you accordingly  
8 so that you can potentially require the owner or  
9 operator to, at that point, change what they're  
10 monitoring for and perhaps go back to a broader  
11 panoply until a new baseline is established for  
12 whatever that change in operations was. Isn't that a  
13 possible alternative approach?

14 MR. COBB: I would like to see a history  
15 to be able to compare. You know, with a lot of  
16 these -- and we're asking for the history now -- we  
17 don't necessarily have that. Would you be willing to  
18 include that as well?

19 MS. FRANZETTI: I'm willing to work on  
20 anything that is more reasonable than year after year  
21 after year after year of non-detected parameters.

22 So yeah, I'm willing to talk to you. I  
23 recognize what you're saying. You want a baseline of  
24 data.

1 MR. COBB: Let me make it clear, it's no  
2 longer our proposal so I would leave this matter to  
3 the Pollution Control Board.

4 MS. DEXTER: Do you know the costs  
5 associated with the non-detect semiannual testing?

6 MR. COBB: Inorganic contaminants such as  
7 these are relatively cheap tests. We are not  
8 talking -- like, for organics, you can get into 300  
9 some dollars a sample. These are not expensive  
10 tests. I'm sure we're talking less than a hundred  
11 dollars per sample analysis for the inorganic suite.

12 MR. ARMSTRONG: I have a follow-up  
13 question.

14 MS. FRANZETTI: Hold on a second. I've  
15 got one and then I'll defer to you.

16 With respect to the cost of the testing,  
17 you would agree it's not just the cost of the  
18 testing, however. One has to get in the test  
19 results, review them, validate them, report them to  
20 the Agency and periodically conduct statistical  
21 evaluations on those parameters for every single well  
22 that you've got at the facility, right?

23 MR. COBB: Yes.

24 MS. FRANZETTI: Okay.

1 MR. RAO: Has the Agency taken a look at  
2 the Board's nonhazardous waste landfill regulations  
3 for groundwater monitoring where there are provisions  
4 allowing to reduce the list of contaminants based on,  
5 you know, the monitoring results?

6 MR. COBB: Can I say one thing back to --

7 MR. RAO: Yeah, yeah.

8 MR. COBB: Just one quick comment on the  
9 point you made, Ms. Franzetti, in terms of the  
10 statistics and the costs there.

11 You really can't do the statistics  
12 without the data, so that's another point. There's a  
13 benefit showing that things aren't there.

14 Back to your --

15 MR. RAO: Yeah. I was just asking if you  
16 had looked at the landfill rules where there are  
17 provisions that allow the landfill owner or operator  
18 to reduce the number of contaminants based on ongoing  
19 results.

20 MR. COBB: I've got to say that we did  
21 not look at those simply because of the adjusted  
22 standard that was issued that -- where we -- there  
23 was a site-specific adjusted standard sought for the  
24 Hutsonville site, and that led to -- instead of

1 suggesting that you get an adjusted standard from  
2 landfills that a site-specific regulation be  
3 developed, and so that kind of led us to develop kind  
4 of a separate approach, and the fact that landfills  
5 aren't defined as surface impoundments, and the fact  
6 that surface -- that landfills have liners, I think  
7 our data shows that the majority of these sites  
8 haven't had liners. So you're dealing with a little  
9 bit -- a little bit different situation than the  
10 landfills.

11 MR. RAO: Because you did mention it's up  
12 to the Board to decide on this issue, so if you have  
13 anything more to add, looking at other rules, that  
14 could be helpful.

15 MR. COBB: Okay. Thank you, Anand.

16 MR. ARMSTRONG: I have one follow-up.  
17 Andrew Armstrong with the ELPC.

18 In terms of the extent and the nature of  
19 the monitoring requirements, isn't it accurate that  
20 the peak level of contamination from these  
21 impoundments can be several decades, many decades  
22 after the contamination is -- I'm sorry -- many  
23 decades after the CCW is placed in the impoundment?

24 MR. COBB: It's my technical opinion that

1 that's incorrect. These have been here, many of  
2 them, for decades. The contaminants have been  
3 moving. The groundwater has been moving. We've had  
4 different climatic conditions.

5 So the process of hydrodynamic  
6 dispersion, which I tried to describe in detail in my  
7 pre-filed testimony, we're at the bottom of that  
8 curve in these sites. These have been there.

9 Variability. What we're seeing, the peak  
10 concentrations would have been gone long ago. So  
11 it's my opinion, no. But when we're reviewing these,  
12 typically we're going to model that using groundwater  
13 flow and contaminant transport models -- we're not,  
14 the entity is -- we're going to review that, and if  
15 such modeling shows something like that, we're not  
16 going to approve it.

17 But it's my opinion, and I tried to state  
18 that, that what we're seeing there in those  
19 monitoring wells is a result of decades of  
20 groundwater recharging through these unlined  
21 impoundments and resulting in what we're seeing.  
22 This isn't a one-time shot. What we're seeing there  
23 has been happening as a process over decades.

24 MR. ARMSTRONG: Do you have an

1 understanding as to the USEPA's view of the peak  
2 level on contamination from unlined impoundments,  
3 based on their notice in the Federal Register of the  
4 proposed rule in 2010?

5 MS. FRANZETTI: Counsel, what are -- in  
6 fairness, what are you referring to as the EPA's  
7 opinion on peak --

8 MR. ARMSTRONG: Well, the EPA's opinion  
9 on peak levels as expressed in the Federal Register  
10 notice of the proposed coal ash rule under RCRA.

11 MS. FRANZETTI: What is it? Maybe  
12 Mr. Cobb memorized that notice and knows it off the  
13 top of his head, but I know I don't.

14 MR. ARMSTRONG: Well, according to the  
15 Federal Register, they say that the unlined surface  
16 impoundment risks typically peak within the first 100  
17 years, and that's 75 Federal Register 35.145, and  
18 that's an attachment to the Agency's filing.

19 MR. COBB: What page is that,  
20 Mr. Armstrong?

21 MR. ARMSTRONG: 75 Federal Register  
22 35.145.

23 MR. COBB: Can you repeat where that is?  
24 This on page 35.145?

1 MR. ARMSTRONG: Sure. This is actually  
2 just to clarify. This is Attachment E.

3 MR. COBB: Yeah, I know. We've got it  
4 right here.

5 MR. ARMSTRONG: This is the center  
6 column, and I can read the entire paragraph.

7 The model there predicts that groundwater  
8 risks will occur centuries later for landfills and  
9 for surface impoundments. For the groundwater and  
10 drinking water pathway for unlined landfills, arrival  
11 times will have peak concentrations and a receptor  
12 well peaking in the hundreds or thousands of years,  
13 while unlined surface impoundments particularly peak  
14 within the first one hundred years. Clay liners  
15 resulted in later arrival in peak risks, nearly  
16 always to the thousands of years for landfills, but  
17 still in the first few hundred years for surface  
18 impoundments.

19 MR. COBB: I'd have to see the  
20 site-specific data the USEPA used to generate this  
21 statement and exactly what the geochemistry is. I  
22 know the geochemistry of the impoundment at our  
23 sites, and I know how hydrodynamic dispersion works.

24 Before I could answer this question, I

1 would need to see the exact inputs into this model.

2 We will be modeling and we -- when you  
3 run contaminant transport models, we usually run  
4 those out to steady state conditions.

5 So, like I said, when we run the  
6 contaminant transport model, we'll be running the  
7 contaminant transport model based on our source  
8 materials and impoundments in Illinois, and if  
9 there's a peak concentration, you don't just stop at  
10 a timeframe; you run the model out into the future  
11 just like they did. But I don't know what their  
12 inputs are to say how this compared.

13 MR. ARMSTRONG: Just one more follow-up  
14 question.

15 How old is the oldest impoundment that  
16 Illinois EPA's been dealing with in Illinois?

17 MR. COBB: We don't have all of them, but  
18 I know that, for example, one was 1951. It's older  
19 than me.

20 MR. ARMSTRONG: And how long has the  
21 Agency been collecting data for the impoundments?

22 MR. COBB: That's a bit of a complex  
23 question in that some of these facilities -- and I'll  
24 let one of my staff answer that.

1 MR. BUSCHER: This is Bill Buscher. That  
2 varies from site to site. In some instances,  
3 groundwater monitoring was taking place prior to  
4 1990. It really just depends on the specifics of the  
5 site, but --

6 MR. ARMSTRONG: So the Agency's  
7 understanding of the trends in groundwater  
8 contamination around the impoundments is based upon  
9 about 14 years of monitoring data, 1990?

10 MR. BUSCHER: Twenty-four.

11 MR. COBB: As in the pre-filed testimony,  
12 the Agency's understanding is beyond just the  
13 monitoring. It's beyond the concepts of hydro  
14 geology, groundwater flow, hydrodynamic dispersion  
15 and matching that with the data. So it's more than  
16 just the monitoring we are using to make our  
17 opinions.

18 MR. BUSCHER: That would be 24 years of  
19 data.

20 MR. ARMSTRONG: Correct.

21 MR. BUSCHER: Thank you.

22 MR. COBB: Thank you, Bill.

23 HEARING OFFICER FOX: Anything further,  
24 Mr. Armstrong?

1 MR. ARMSTRONG: No.

2 HEARING OFFICER FOX: Ms. Franzetti, we  
3 may be ready, if I'm not mistaken, for question 7(a)  
4 on your part?

5 MS. FRANZETTI: I'm sorry. We're not  
6 quite ready yet. It also kind of relates to (a).

7 Mr. Cobb, with respect to your answer  
8 in -- to question 7, part 1 of that, Illinois has  
9 groundwater quality standards for chemical  
10 constituents in 620 that go beyond what are in the  
11 proposed federal does.

12 Would you agree that the Part 620  
13 standards, though, the constituents that are in Part  
14 620 standards was not developed specifically to  
15 address coal combustion waste?

16 MR. COBB: Well, the Part 620 standards  
17 are not site-specific rules. They're rules of  
18 general applicability that certainly apply to the  
19 groundwater resources under your -- the facilities  
20 you represent.

21 MS. FRANZETTI: Right. But my point is,  
22 for example --

23 MR. COBB: The answer is yes.

24 MS. FRANZETTI: And so, for example, one

1 of those constituents for which there's a Part 620  
2 numeric standard is perchlorate. Would you ever  
3 reasonably associate perchlorate with coal combustion  
4 waste?

5 MR. COBB: We recommended to the Board  
6 that they consider removing perchlorate in response  
7 to one of these questions. I'll see if I can find  
8 that response. Hold on.

9 Does any of the panel --

10 MS. FRANZETTI: If you can't find it now,  
11 it's going to come up. That's okay. But if you did,  
12 I didn't get to it. I didn't see it.

13 But let me give you another example,  
14 then, that you would -- maybe you would also consider  
15 making that recommendation on. What about the --

16 MR. COBB: If you would like to provide  
17 us with a list, we'd be happy to evaluate it, because  
18 I wouldn't want to review this independent of our  
19 technical staff.

20 MS. FRANZETTI: And I understand, and the  
21 question was more intended, maybe you already have  
22 and there was some reason we weren't thinking of for  
23 why it should remain on the list, so that's fine.

24 MR. RAO: May I ask a follow-up question?

1 MS. FRANZETTI: No. (Laughter.) Of  
2 course.

3 MR. RAO: Would the groundwater  
4 monitoring results that you got based on, you know,  
5 ash pond strategy, what -- did you come up with a  
6 list of constituents which you wanted these  
7 facilities to monitor, or did they provide you with  
8 what they thought was appropriate for the CCW  
9 impoundments?

10 MR. COBB: Well, since you all set the  
11 standards, we felt we shouldn't be doing that. Part  
12 620 defines the standards, so we started with that.  
13 Here are the Board's groundwater quality standards,  
14 assess for these. That's how we did it.

15 MR. RAO: Okay. So any monitoring that  
16 you have included in the record represents all the  
17 constituents under Part 620?

18 MR. COBB: Not all of the constituents  
19 because these types of contaminants are primarily  
20 inorganic, so let me slightly modify my response that  
21 we went to the inorganics because coal combustion  
22 waste does include inorganics, and we were focusing  
23 on coal combustion waste residues in all the research  
24 that we've seen, which we also tried to include in

1 the Statement of Reasons and in the pre-filed  
2 testimony what's been seen nationally, so --

3 MR. RAO: And in these results that you  
4 evaluated, if you had a number of non-detects for  
5 various contaminants, you still continue to believe  
6 that they should be part of the list.

7 MR. COBB: We did because we -- at this  
8 time, we're not positive of the history and we're not  
9 positive of if there are going to be changes, but we  
10 heard some testimony regarding that.

11 MR. RAO: Okay. Thanks.

12 MS. FRANZETTI: Along those lines, I'll  
13 move then to 7(a), and I think we probably ought to  
14 read the question and the answer on this one.

15 If leachate from the unit to be monitored  
16 is collected and analyzed by the owner or operator,  
17 would the Agency be willing to use that analytical  
18 data as a basis to shorten the parameters monitoring  
19 list to only those parameters which are shown to be  
20 detected within the leachate from the unit?

21 And the Agency answered that it believes  
22 the full list is needed, as future influent and the  
23 chemical makeup of the influent may be different than  
24 what is currently being sent to the impoundment. In

1 addition, many of the existing impoundments have been  
2 in existence for many years. The current influent  
3 may not be reflective of the total chemical makeup of  
4 what has been placed in the impoundments over the  
5 length of their existence.

6 And I wanted to ask a follow-up question,  
7 and it may be unique to the Midwest Generation  
8 impoundments.

9 What about our situation, where ash is  
10 removed periodically, so that it is the current  
11 influent that is reflective of the total chemical  
12 makeup of what's being placed in these impoundments?  
13 Would the Agency want to have the flexibility for a  
14 situation like ours where it's lined, ash is  
15 periodically removed, to be able to allow some  
16 reduction in the list of parameters that have to be  
17 monitored?

18 MR. COBB: You know, at those  
19 impoundments, we have corrective actions in place,  
20 and you were able to put low permeability liners in  
21 place, and we're looking then at hydrodynamic  
22 dispersion to deal with the existing groundwater  
23 quality contamination that exists at those  
24 impoundments because now you've got an impermeable

1 liner to prevent more contaminants. We have not  
2 looked at that consideration.

3 MS. FRANZETTI: Okay. Will you consider  
4 that question further and give us some idea of  
5 whether you might be willing to consider, allowing  
6 for under appropriate circumstances, a reduction in  
7 the list of constituents to be monitored?

8 MR. COBB: Yes, that's fair.

9 MS. FRANZETTI: I think with that, I'm  
10 going to skip 7(b) and move to the questions, then,  
11 for Mr. Cobb.

12 MS. OLSON: I would just like to state  
13 that while these questions are directed to Mr. Cobb,  
14 they were divided up among the panel, so these  
15 questions may not be answered by Mr. Cobb, just so  
16 you know.

17 MS. FRANZETTI: Right. And I want to do  
18 that for the record because I start again at number  
19 1, and don't want to confuse people --

20 MS. OLSON: Sure.

21 MS. FRANZETTI: -- and make them think  
22 I'm going back to the beginning again.

23 Okay. We're okay to keep going. No  
24 break.

1           Question number 1, Midwest Gen Power  
2           Stations Impoundments - Periodic Ash Removal -- and  
3           the following questions refer to Attachment 1 and  
4           specifically to our stations; Waukegan, Powerton,  
5           Joliet 29, and Crawford Stations.

6           Question (a), just summarizing the  
7           Agency's Response, it's fine in terms of I don't have  
8           any follow-up questions, and we were just asking for  
9           confirmation that none of the impoundments identified  
10          on Attachment 1 for the Midwest Generation Stations  
11          are used as permanent disposal sites for ash, but  
12          rather, the ash that collects in these impoundments  
13          is removed on a periodic basis, and the Agency  
14          confirmed that is its understanding as well.

15          So moving on to (b) where -- excuse me.  
16          I do have one follow-up question. The question was  
17          whether there are other impoundments owned or  
18          operated by the entities listed in Attachment 1  
19          besides Midwest Generation which are also not used as  
20          permanent disposal sites for ash and from which ash  
21          is removed on a periodic basis, and the Agency's  
22          answer points out that is there are impoundments that  
23          are still operating. They haven't closed. These  
24          owners or operators have the option at any time to

1 remove the ash for beneficial use and can close these  
2 impoundments by complete removal of ash. Therefore,  
3 the Agency cannot say whether impoundments that are  
4 not closed are permanent disposal sites for ash.  
5 Venice and Hutsonville Ash Pond D would be termed  
6 permanent disposal sites.

7 I understand your answer. What you're  
8 saying is that at any given time, an owner or  
9 operator could change and start removing ash from an  
10 unclosed CCW impoundment, but just to clarify for the  
11 record, because I'm trying to understand whether  
12 right now Midwest Gen is the only one that is  
13 periodically removing the ash.

14 So, at present, is it the Agency's  
15 understanding that that periodic removal of ash is  
16 not occurring at any other impoundments besides  
17 Midwest Gen's?

18 MR. BUSCHER: As you're aware, ash is  
19 marketed, so there are other sites that periodically  
20 remove ash.

21 MS. FRANZETTI: Okay. Maybe I need to  
22 further clarify. They don't remove all the ash in  
23 the impoundments. They may remove some to sell it.

24 MR. BUSCHER: That's a site-specific

1 call.

2 MS. FRANZETTI: Okay.

3 MR. BUSCHER: And the regulation does  
4 cover leachate created by the ash, so it's not --  
5 there's a little more to it than that.

6 MS. FRANZETTI: Okay.

7 Moving on, then, to question 2,  
8 summarizing. I don't have a follow-up.

9 Attachment 1 to your pre-filed testimony  
10 notes that the Will County Midwest Gen Station has  
11 four impoundments, and we were seeking a correction  
12 on that because two of those impoundments, Ponds 1  
13 North and 1 South, have been removed from service,  
14 and the Agency agreed that those two impoundments  
15 have been removed from service.

16 Moving to 2(b): If the two Will County  
17 impoundments are removed from service prior to the  
18 enactment of these proposed rules, will they be  
19 subject to the proposed closure requirements of these  
20 proposed rules?

21 And the Agency responded: If all CCW or  
22 leachate from CCW is removed before the effective  
23 date of these rules, this Part would not apply.

24 My question is, could you also give us

1 some idea what type of information does the Agency  
2 expect the owner or operator to have to demonstrate  
3 that all CCW or leachate from CCW is removed, so that  
4 we have some idea of what information we should  
5 document to show that those two ponds, assuming  
6 they're removed from service and we get rid of all  
7 the CCW or leachate from CCW, so that we are not  
8 subject to these rules, what type of information will  
9 you expect to see for us to make that showing?

10 MR. BUSCHER: I can't answer that.

11 MS. FRANZETTI: Okay. All right. That's  
12 not something that the Agency has specifically  
13 considered?

14 MR. BUSCHER: We have not conclusively  
15 considered.

16 MS. FRANZETTI: Okay. Moving on to  
17 question 3, this -- these questions regard Midwest  
18 Gen's Will County, Joliet 29, and Powerton Stations,  
19 and they were seeking clarification of liner status  
20 in questions 3(a) through (d). I don't have any  
21 follow-up questions on those except one on 3(a), so  
22 I'll read 3(a).

23 As part of the work that was done by  
24 Midwest Gen under the Will County Station CCA, which

1 stands for Compliance Commitment Agreement, is it  
2 correct that one of the two remaining impoundments  
3 was to have its liner replaced with a new synthetic  
4 liner subject to Agency approval of the proposed  
5 liner specifications?

6 Agency Response: Yes, for Will County  
7 Power. Pond 3S lined with an HDPE liner, Pond 2S is  
8 to be lined with an HDPE liner, and Ponds 1N and 1S  
9 are to be removed from service and a de-watering  
10 system installed.

11 One thing we want you to further check on  
12 is your comment that Pond 2S is to be lined with an  
13 HDPE liner, because we do believe it has been lined.  
14 I don't know if you can answer that or make that  
15 clarification right now, but if you would look into  
16 that.

17 MR. BUSCHER: We're going to have to look  
18 into that.

19 MS. FRANZETTI: Okay. Is it okay if I  
20 jump to question 4?

21 HEARING OFFICER FOX: If there are no  
22 follow-ups based on questions 3(b), (c), or (d) on  
23 the basis of those questions, Ms. Franzetti, I think  
24 it makes perfect sense to go to question number 4.

1 MS. FRANZETTI: Okay. And with respect  
2 to question 4, again, these are questions specific to  
3 the Midwest Gen Will County, Waukegan and Powerton  
4 Stations with respect to some of the provisions of  
5 the Compliance Commitment Agreements that Midwest Gen  
6 and the Agency entered into, and the only one that I  
7 have a follow-up question on was Subpart C, so I'm  
8 going to move to that one.

9 The question was: Under the proposed  
10 rules, will ELUCs, capital E-L-U-C, small s, continue  
11 to be available as an institutional control to  
12 address groundwater impacts?

13 The Agency's Response is: ELUCs can be  
14 used as authorized under Section 58.17 of the  
15 Illinois Environmental Protection Act, 415 ILCS  
16 5/58.17 (2012.)

17 My question is, is it the Agency's intent  
18 under the proposed rules that any institutional  
19 control that is authorized under the Illinois  
20 Environmental Protection Act is applicable under  
21 these proposed rules?

22 MR. COBB: Can you repeat the question?  
23 Did you ask if only authorized under the Illinois  
24 Environmental Protection Act?

1 MS. FRANZETTI: Not only. It was if; if,  
2 in addition to ELUCs, there are other institutional  
3 controls that the Illinois Environmental Protection  
4 Act authorizes be used, then is it the Agency's  
5 intent that they would be eligible for use under  
6 these proposed rules?

7 MR. COBB: If authorized under the Act  
8 and regulations, then they could be used as specified  
9 under the Act and those regulations.

10 MS. OLSON: May I ask a follow-up  
11 question?

12 MS. FRANZETTI: Sure. Maybe -- I'm sorry  
13 to interrupt you, but here's what we're trying to  
14 understand. It didn't seem to us, unless we missed  
15 it, that ELUCs were mentioned anywhere in these  
16 proposed Part 841 rules, okay? Your answer, though,  
17 seems to say, sure, if they're allowed per Section  
18 58.17 of the Act, you can rely on ELUCs as part of  
19 your corrective action under these rules.

20 I'm now just trying to broaden it, since  
21 ELUCs weren't mentioned in the rules, if there are  
22 other types of institutional controls that the Act  
23 generally allows, although it may have certain  
24 criteria for when they can be applied. Is it your

1 intent, then, they can apply to Part 841 rules?

2 MR. COBB: Yes.

3 MS. FRANZETTI: Okay.

4 MR. COBB: And I think there was a  
5 further clarification. It may have been this  
6 section. We were just using the term generically in  
7 the pre-filed testimony.

8 MS. OLSON: What are you talking about?

9 MR. COBB: The institutional controls,  
10 slash, restricted use ordinances, because there could  
11 be other institutional controls other than  
12 ordinances. That may have actually been a Board  
13 question. I can't recall.

14 MS. FRANZETTI: Okay.

15 Moving on to question 5. These again  
16 were all your specific questions relating to the  
17 monitoring results from Midwest Gen's groundwater  
18 monitoring system at certain of its plants, Will  
19 County, Waukegan, and Powerton, which we felt had  
20 been misreported in Attachment 1 to the Agency's  
21 testimony, so we asked a series of questions to try  
22 and correct the misreporting of those values in  
23 Attachment 1, and the Agency has generally agreed  
24 with our pointing out some of the corrections that

1 needed to be made, with one exception being in  
2 question 5(c) where the Agency could not state --  
3 stated for Powerton with respect to mercury results  
4 for Monitoring Well 12 that the Agency cannot find  
5 laboratory data sheets to confirm that mercury at  
6 MW-12 on December 15th, 2010, was initially  
7 misreported to the Agency.

8 So we'll work on helping supply those  
9 data sheets, but otherwise, I don't have any  
10 follow-up on question 5.

11 HEARING OFFICER FOX: And, Ms. Franzetti,  
12 I'm not seeing a signal that anyone else has a  
13 follow-up on that request for data, so question  
14 number 6 seems to be in order.

15 MS. FRANZETTI: Okay. Similarly, on  
16 question 6, this was -- give me a second. I'm sorry.  
17 Now I'm forgetting what my questions are.

18 Oh, okay. I'm sorry. Question 6 we  
19 wanted specific confirmation that the Midwest  
20 Generation Stations were included within the  
21 statement on page 4 of Mr. Cobb's testimony that the  
22 assessments conducted determined that none of these  
23 sites with groundwater contamination threatened  
24 offsite potable water supply wells.

1           And the answer is: Yes, that that  
2 statement does include the Midwest Gen Stations that  
3 are listed in Attachment 1.

4           As to question 6(a), we questioned why  
5 the Agency believes these regulations need to be  
6 adopted now, given that none of the sites threaten  
7 offsite potable water supply wells, and the Agency's  
8 response is: Illinois has groundwater quality  
9 standards that apply onsite as well as offsite. In  
10 addition, the Agency is proposing these rules in  
11 response to the site-specific rulemaking filed by  
12 Ameren Energy Resources.

13           I have no follow-up questions.

14           Moving on to question 7, I'll paraphrase.  
15 I don't have a follow-up question.

16           My question was for the Agency to explain  
17 what it meant by its statement at page 4 of  
18 Mr. Cobb's testimony that these rules were developed  
19 specifically to fill a regulatory gap that exists  
20 pertaining to CCW surface impoundments at facilities,  
21 and the Agency responded that the surface  
22 impoundments are built and operated under the  
23 Subtitle C regulations, but that Subtitle C does not  
24 contain provisions for closure or corrective action.

1 Therefore, the Agency believes there is a regulatory  
2 gap.

3 It also noted the Board's recommendation  
4 in AS 09-1 that a site-specific regulation be  
5 developed under Subtitle G to address CCW surface  
6 impoundments, and the April 2013 Ameren Energy  
7 Resources site-specific rulemaking proposal to close  
8 multiple sites is also cited. No follow-up  
9 questions.

10 Question 8: Is the intended scope of the  
11 proposed rules to address threats or impacts to  
12 groundwater from CCW surface impoundments?

13 The answer is: Yes, as well as threats  
14 or impacts to groundwater from leachate from CCW  
15 surface impoundments.

16 Moving to question 9. Is it not -- and  
17 excuse me -- this is where I stopped reviewing. I  
18 ran out of time, so I won't be as quick to be able to  
19 say whether I have a follow-up question or not.

20 Question 9: Is it not the intended scope  
21 and purpose of these rules to address threats or  
22 impacts to groundwater from sources other than CCW  
23 surface impoundments at these facilities? Why did  
24 the Agency decide to limit the scope of the rules to

1 impacts from CCW surface impoundments? Is it because  
2 this is where the regulatory gap exists and there are  
3 other existing state programs that can address  
4 impacts on groundwater from other sources?

5 Agency Response is: Yes, the Agency does  
6 not intend the scope of these rules to cover  
7 activities other than surface impoundments containing  
8 CCW or leachate from CCW. The Agency limited the  
9 scope of these rules because, as stated above, this  
10 is where the regulatory gap exists.

11 I don't have any follow-up questions.

12 Question 10. On page 7 of your pre-filed  
13 testimony, you state that, quote, metals in  
14 groundwater are most soluble in water with a low pH,  
15 end quote. What pH range are you referring to as,  
16 quote, low pH, end quote? Is it the, quote, below  
17 4.5, end quote, pH range referenced at page 9 of your  
18 testimony?

19 Agency Response: The statement was  
20 intended to emphasize acidic conditions at 4.5 or  
21 less.

22 I have no further questions on that.

23 Question 11 relating to TDS. On page 9  
24 of your pre-filed testimony, you state that TDS can

1 cause, quote, objectionable taste and odor  
2 conditions, end quote. At what TDS concentration  
3 level do such conditions occur? Is it these types of  
4 conditions that the Class I standards of 1,200  
5 milligrams per liter is based on?

6 Agency Response: TDS can include  
7 sulfate, which causes objectionable taste and odor  
8 conditions, at a concentration of 250 milligrams per  
9 liter. See the Agency's response to question 12  
10 below: Yes, these are the types of conditions that  
11 the Class I standard is based on.

12 No follow-up questions.

13 Moving to question 12, Sulfate. In the  
14 1999 EPA Study of high levels of sulfate in drinking  
15 water referenced on page 9 of your pre-filed  
16 testimony, what concentrations of sulfate were  
17 reported to cause the bad taste and smell reported by  
18 the participants in the study?

19 Agency Response: 250 milligrams per  
20 liter.

21 Moving to question 13 on the Boron. On  
22 page 9 of your pre-filed testimony, you state that,  
23 quote, boron contamination may prevent watering of  
24 sensitive plants, end quote. Please explain what

1 this statement means, including explaining what types  
2 of plants you are referring to as quote-unquote  
3 sensitive plants.

4 Agency Response: Boron is phytotoxic.  
5 Table Roman Numeral V-14 from Water Quality Criteria  
6 1972 describes what plants are sensitive to boron.  
7 See Exhibit L.

8 Exhibit L to your Statement of Reasons?

9 MS. OLSON: No, Exhibit L that's  
10 attached.

11 MS. FRANZETTI: Oh, it's here?

12 MS. OLSON: Yeah. Did you get a package  
13 of exhibits?

14 MS. FRANZETTI: No.

15 MS. OLSON: Would you like me to get you  
16 one?

17 MS. FRANZETTI: Yeah.

18 HEARING OFFICER FOX: Ms. Franzetti,  
19 while we have a moment to break, we have been at it  
20 for over two hours now, and at the risk of sounding  
21 like I'm assigning homework during the lunch break,  
22 that might be an opportunity to review the exhibits  
23 that Ms. Olson is preparing -- submitting to you and  
24 the written answers that we obtained earlier today,

1 so that a break, in addition to good timing, might  
2 give us a chance to move a little more quickly  
3 through some of these questions when we resume this  
4 afternoon.

5 Why don't you take up question number 14  
6 if you don't object. We can get to the issue of  
7 applicability, at least, and then we can see what a  
8 one-hour break would -- and what time a one-hour  
9 break would end.

10 MS. FRANZETTI: Sure. Question 14. Is  
11 the boron groundwater set at a level to protect  
12 against such harm to plants?

13 Agency Response: Yes, and other  
14 beneficial uses.

15 Just a quick question. What do you mean  
16 by other beneficial uses?

17 MR. COBB: Well, if you have a private  
18 well in your front yard and it's your drinking water  
19 source and it's also used to water your grass and  
20 plants, which might include some of these trees that  
21 could be in your yard, that's what I mean by other  
22 beneficial uses.

23 MS. FRANZETTI: Okay.

24 MR. COBB: And taking a shower, swimming.

1 HEARING OFFICER FOX: Anything further on  
2 boron, Ms. Franzetti?

3 MS. FRANZETTI: No.

4 HEARING OFFICER FOX: Why don't we stop  
5 there. We've reached the issue of applicability.  
6 Our Board Members have suggested with lunch options  
7 very close that we a 45-minute break, which should be  
8 ample time, and we would plan to resume at 5 to 1:00  
9 and we can pick up precisely where you have left off,  
10 Ms. Franzetti, and attack your questions on  
11 applicability.

12 We'll see you in 45 minutes, then. Thank  
13 you.

14 (The noon recess was taken from 12:10  
15 p.m. to 12:55 p.m.)

16 HEARING OFFICER FOX: Thank you again for  
17 your promptness in returning from the break. I did,  
18 in coming to the head table, check the sign-in sheet  
19 for people who wish to comment, and no other person  
20 has signed in indicating that they wish to do so. So  
21 we can proceed right back into the questions and the  
22 answers to the Agency submitted earlier.

23 When we broke, Ms. Franzetti, we had  
24 finished your question number 14 posed specifically

1 to Mr. Cobb, who suggested may be answered in full or  
2 in part by other folks. I think that leaves us ready  
3 to jump back into the question number 15 addressing  
4 applicability, and we'll turn it over to you to begin  
5 right there.

6 MS. FRANZETTI: Thank you. Surely.

7 With respect to question 15, I don't have  
8 any follow-up questions.

9 The question relates to page 10 of your  
10 pre-filed testimony, but since your answer does  
11 indicate that there was an error in your testimony, I  
12 think it's appropriate, for the record, for me to  
13 read the question and answer.

14 On page 10 of your pre-filed testimony,  
15 you state that, quote, the proposed rules apply to  
16 units: (1) in operation after the effective date of  
17 the proposed rules, or (2) that have groundwater  
18 contamination attributable to the unit prior to the  
19 effective date of these rules, end quote.

20 Isn't your reference in Part 2 of this  
21 statement to units that have attributable groundwater  
22 contamination, quote, prior to the effective date of  
23 these rules, end quote, inconsistent with the  
24 language of proposed Section 841.105, which states

1 that for units that are, quote, not operated after  
2 the effective date of these rules, end quote, Part  
3 841 applies when CCW or leachate from CCW, quote,  
4 causes or contributes to an exceedance of the  
5 groundwater quality standards on or after the  
6 effective date of these rules, end quote.

7 Agency Response: The Agency agrees.  
8 This was accidentally miscopied from page 18 of the  
9 Technical Support Document.

10 Moving on to question 16. I don't have  
11 follow-up until I get to 16(b), so I'm going to  
12 paraphrase a little bit here. These questions deal  
13 with the exemption from the proposed rules set forth  
14 in Section 841.105(b)(4)(A) through (C), and the  
15 Agency's response has confirmed that all three  
16 requirements set forth in subparagraphs (A) through  
17 (C) of this subparagraph (i.e., the liner  
18 requirement, the removal of the CCW, or the CCW  
19 leachate from the unit in a one year or less time  
20 period and the maximum volume of no more than 25  
21 cubic yards) must be satisfied in order for the  
22 surface impoundment unit to be excluded from these  
23 proposed rules.

24 The Agency noted that in comments by a

1 few parties, including Midwest Gen, there was a  
2 suggestion that a de minimus exemption be developed,  
3 and the Agency developed the de minimus exemption in  
4 this Subsection(b) (4) (A) - (C) .

5 In your response to question 16(a) in  
6 which we asked why it wasn't sufficient for purposes  
7 of minimizing the risk of exposure to seasonal  
8 recharge from precipitation to remove all the CCW and  
9 any associated leachate on an annual basis, even if  
10 the quantity is somewhat more than the 25 cubic  
11 yards, as long as the unit has the low permeability  
12 liner required by this proposed rule, the Agency  
13 responded that all three are required because it  
14 provides a multiple barrier approach to protection.  
15 For example, if one barrier fails, then there are two  
16 more to ensure protection.

17 My question is whether the Agency has any  
18 data or other information to support the need for  
19 three multiple barriers -- its three multiple barrier  
20 approach to protection. For example, any instances  
21 of where a CCW unit, which has the specified liner in  
22 (b) (4) (A) and from which CCW waste is removed on at  
23 least a yearly basis, have there been adverse impacts  
24 to groundwater when both of those conditions are

1 satisfied?

2 MR. COBB: We don't have the data in  
3 place where the liner has been put in place and  
4 there's currently problems and have had the timeframe  
5 to watch to see what happens over time.

6 However, a multi barrier approach is  
7 something that's used in a lot of the immediate  
8 programs, including drinking water, and we feel it's  
9 appropriate here, too. In fact, Midwest Generation  
10 recommended, I think, 50 cubic yards as one of the  
11 criteria. We chose 25 because it's about one  
12 truckload, one of the large trucks that can haul  
13 waste away.

14 MS. FRANZETTI: Just to clarify, I think  
15 what Midwest Gen's comment was, was that if you've  
16 got a unit that only has up to 50 cubic yards in it,  
17 regardless of the liner, regardless of anything else,  
18 it should be exempted. It's just too small of a  
19 source to warrant this kind of program, but I don't  
20 think that we suggested that where you've got the  
21 required liner, you're removing the CCW on a yearly  
22 basis, that you could only have up to 50 cubic yards  
23 in that unit for it to be exempted, and if that's the  
24 way you interpreted it, I just want to correct that

1 for the record.

2 MR. ARMSTRONG: Can I have a follow-up  
3 question?

4 MS. FRANZETTI: Yes.

5 MR. ARMSTRONG: Thank you. Is the Agency  
6 aware of any impoundments where a synthetic liner has  
7 failed?

8 MR. COBB: No.

9 MR. ARMSTRONG: So the Agency's not aware  
10 of any impoundments where a liner is needed to be  
11 replaced or relined?

12 MR. COBB: Can I ask for clarification?  
13 Your first question is different than your second  
14 question, because in your second question you just  
15 use the generic term liner. The first question you  
16 used, are we aware of any synthetic liner.

17 MR. ARMSTRONG: Is the Agency aware of  
18 any cases where an impoundment needed to be relined?

19 MR. COBB: Yes.

20 MR. ARMSTRONG: And what were those  
21 cases?

22 MR. COBB: Midwest Generation.

23 MR. ARMSTRONG: And why did the  
24 impoundments need to be relined?

1 MR. COBB: Because they didn't have  
2 appropriate liners, and that was prior to the  
3 installation of the appropriate liner, which is a  
4 high density polyethylene liner with a hydraulic  
5 conductivity of  $1 \times 10$  to the minus 7 or less  
6 centimeters per second.

7 MR. ARMSTRONG: And what was the  
8 inappropriate liner in that case?

9 MR. COBB: It's a material called  
10 pausopak (phonetic.)

11 MR. ARMSTRONG: Thank you. No further  
12 questions.

13 MS. FRANZETTI: Question 16(b) was: Why  
14 is 25 cubic yards a threshold for additional risk?

15 And the response is: See the Agency's  
16 response to 16(a) above, referring back to the  
17 multiple barrier approach.

18 But what we're trying to understand is  
19 why specifically the Agency arrived at 25 cubic yards  
20 as the amount.

21 MR. COBB: Sure. Well, Midwest Gen  
22 actually recommended two truckloads as 50 cubic  
23 yards, and we wanted to be a little bit more  
24 protective, so we chose one truckload. So we

1 actually built off of your recommendation of 50 cubic  
2 yards, which I believe was referenced as being two  
3 truckloads.

4 MS. FRANZETTI: Okay. But Mr. Cobb, I  
5 guess we should have recommended four truckloads and  
6 gotten you to pick 50.

7 MR. COBB: We were just trying to be more  
8 protective.

9 MS. FRANZETTI: Okay.

10 Question (c) was asking for the source or  
11 basis of the permeability standard of  $1 \times 10$  to the  
12 minus 7 centimeters, and you did provide the source,  
13 and that is in Exhibit M of the exhibits that were  
14 filed today.

15 One other question on the HDPE liner that  
16 is used at Midwest Gen impoundments today. What is  
17 the hydraulic conductivity of the HDPE liner?

18 MR. COBB: At a minimum, it's  $1 \times 10$  to  
19 the minus 7 centimeters per second. It could be  
20 actually a little bit less than that, but at a  
21 minimum, it meets that performance standard.

22 MS. FRANZETTI: Do you recall whether the  
23 information indicates it is actually a lot less than  
24 ten to the minus seven?

1 MR. COBB: I do not recall.

2 MS. FRANZETTI: Okay. Moving to question  
3 17, I'm going to paraphrase. I don't have any  
4 follow-up questions.

5 This question deals with the exclusion  
6 relating to a stormwater unit that does not collect  
7 stormwater from a CCW surface impoundment. And the  
8 Agency's response is noting that runoff from a CCW  
9 storage pile would also be considered leachate, and  
10 so, therefore, the exclusion applies if the unit does  
11 not collect stormwater from a CCW surface  
12 impoundment, runoff from a CCW storage pile, or other  
13 CCW source, or leachate from a CCW landfill or other  
14 CCW source.

15 Moving to question 18. The question asks  
16 for an explanation of how your statement at page 11  
17 of your pre-filed testimony that quotes: Stormwater  
18 is a disperse nonpoint source of pollution that does  
19 not have a significant hydraulic head, end quote, is  
20 relevant to the proposed exclusion for stormwater  
21 runoff units.

22 Agency Response is: The testimony was  
23 referring to stormwater running over the land  
24 surface, not stormwater collected in an impoundment

1 which has a hydraulic head.

2 Moving on to Definitions questions,  
3 question number 19. I do have a question regarding  
4 your answer.

5 The question dealt with the compliance  
6 point definition in Section 841.110 of the proposed  
7 rules, which includes language that the compliance  
8 point is, quote, a lateral distance of 25 feet from  
9 the outer edge of the unit, or property boundary,  
10 whichever is less, and when you were asked to explain  
11 the basis for the restrictions to the lateral  
12 distance of 25 feet, even if the location of the  
13 facility's property boundary is greater than 25 feet,  
14 and the Agency Response is that the, quote,  
15 compliance point, end quote, as described is  
16 consistent with the point of compliance in Part 620,  
17 and see specifically Section 620.240. Within the 25  
18 foot distance, the groundwater is Class IV.

19 Now, I'm going to stop there. I know the  
20 answer goes on, I'll get to that, but I have a  
21 question on that statement.

22 Why is it significant that within the 25  
23 foot difference the groundwater is Class IV.

24 MR. DUNAWAY: The standard that must be

1 met for Class IV groundwater is a monitored  
2 concentration.

3 MS. FRANZETTI: And by the monitored  
4 concentration, what is being referred to?

5 MR. DUNAWAY: The result from a sample  
6 collected from a monitoring well.

7 MS. FRANZETTI: So even within that 25  
8 feet of the unit, the monitored concentration is  
9 three times the standard, well over the standard,  
10 it's in compliance with the Class IV requirements  
11 that apply to that 25 foot distance?

12 MS. OLSON: Can I just clarify? When you  
13 say three times over the standard, are you talking  
14 about the Class I standard?

15 MS. FRANZETTI: Oh. Well, that's a good  
16 question. That's a good question. Let's go back and  
17 clarify that.

18 So if Class IV is the monitored  
19 concentration, it's whatever that value is that is  
20 monitored in the groundwater in that 25 foot area,  
21 lateral area, no matter how high the number is.

22 MR. DUNAWAY: That's correct. But I  
23 would add to that, that the regulation specifies a  
24 maximum of 25 feet, so if the well is closer than

1 that, it would be less than 25 feet.

2 MS. FRANZETTI: I'm sorry. I lost you on  
3 that last statement.

4 MS. OLSON: Let me ask a couple questions  
5 and hopefully we can clarify.

6 When a facility develops a groundwater  
7 monitoring system, they put wells in close to the  
8 unit; is that correct?

9 MR. DUNAWAY: That's correct.

10 MS. OLSON: And is it possible that they  
11 could put the monitoring well in at 23 feet?

12 MR. DUNAWAY: It's possible.

13 MS. OLSON: And if the monitoring well  
14 was placed at 23 feet, where would the compliance  
15 point be?

16 MR. DUNAWAY: At 23 feet.

17 MS. OLSON: Can a compliance point be at  
18 26 feet?

19 MR. DUNAWAY: It can be, yes.

20 MS. OLSON: And when would that be?

21 MR. DUNAWAY: When a well's installed  
22 there, compliance has to be met at any monitoring  
23 point.

24 MS. OLSON: So when we say that the

1 compliance point is 25 feet out, not farther than 25  
2 feet out, what do we mean by that?

3 MR. DUNAWAY: We mean out to that  
4 distance, it is Class IV groundwater. Beyond that  
5 point, it's the appropriate class of groundwater,  
6 whichever the natural class would be.

7 MS. OLSON: Thank you.

8 MS. DEXTER: Can I ask a clarifying  
9 follow-up, too? In the draft regulation, it says, a  
10 lateral distance of 25 feet from the outer edge of  
11 the unit or property boundary, comma, whichever is  
12 less. Is that whichever is closer? And closer to  
13 what exactly?

14 MR. DUNAWAY: I don't believe there's  
15 really a difference between whichever is closer and  
16 whichever is less, but it's referring to the edge of  
17 the unit.

18 MS. DEXTER: Thank you.

19 MS. FRANZETTI: Mr. Dunaway, I need to  
20 ask you one more question to understand this concept.

21 I understand that you said that if the  
22 monitoring well is located 23 feet from the edge of  
23 the unit, then whatever the monitored concentration  
24 is, is acceptable at that location. So is it correct

1 that one can never be out of compliance with  
2 groundwater standards at those -- at such a  
3 monitoring location that is 23 feet from the edge of  
4 the unit?

5 MR. DUNAWAY: If the property boundary  
6 were closer, you certainly could be out of compliance  
7 at a closer distance.

8 MS. FRANZETTI: Right. But assume the  
9 property boundary is greater than the 23 foot  
10 location of that monitoring well.

11 MR. DUNAWAY: Within the area, it is  
12 Class IV. However, if you are on that line, that  
13 line is an imaginary line, of course. Immediately on  
14 the other side of it, you must meet the standards  
15 that are applicable to the natural class.

16 MS. FRANZETTI: Okay.

17 MR. DUNAWAY: So if you can -- well,  
18 okay.

19 MS. ANTONIOLLI: Could I ask a question?  
20 My name is Amy Antoniolli. I'm here on behalf of  
21 Medina Valley Cogen.

22 Just to follow up on that line of  
23 questioning, within Class IV groundwater standards,  
24 do the nondegradation standards apply?

1 MR. DUNAWAY: Not nondegradation as it's  
2 typically referred to in Subpart C of 620. However,  
3 since it's the monitored concentration -- repeat that  
4 question.

5 MS. ANTONIOLLI: Within Class IV  
6 groundwater, would the nondegradation standards  
7 apply?

8 MR. DUNAWAY: Are you referring to the  
9 Class IV groundwater within 25 feet of the unit, or  
10 are you referring to Class IV groundwater beyond the  
11 25 feet?

12 MS. ANTONIOLLI: Does that make a  
13 difference? Sorry to answer with a question.

14 MR. DUNAWAY: Yes, because there are  
15 Class -- there are areas of Class IV groundwater that  
16 exist outside of 25 feet.

17 MS. ANTONIOLLI: Can you give an answer  
18 to both, whether it's within the 25 feet boundary and  
19 also whether there's a Class IV groundwater outside  
20 of the 25 foot boundary and whether nondegradation  
21 standards would apply in both cases?

22 MR. DUNAWAY: Class IV groundwater  
23 requires that within that 25 feet, it's the monitored  
24 concentration. Beyond that distance, Class IV -- as

1 an example, in a previously mined area, the numerical  
2 standards apply unless they have already been  
3 exceeded, in which case the monitored concentration  
4 would be the appropriate standard, which essentially  
5 would mean you could not increase the concentration  
6 in that area outside that 25 feet in a Class IV  
7 groundwater area.

8 MS. ANTONIOLLI: Okay. Thank you.

9 HEARING OFFICER FOX: Anything further,  
10 Ms. Antoniolli?

11 MS. ANTONIOLLI: No.

12 MS. FRANZETTI: I will just go back to  
13 note that as part of the Agency's Response to  
14 question 19 regarding this issue of the definition of  
15 compliance point, the Agency also references its  
16 answers to Board questions 21 and 22 for  
17 clarification and suggested alternate language.  
18 Subsection 620.240(e)(1)(A) indicates: A lateral  
19 distance of 25 feet from the edge of such potential  
20 source or the property boundary, comma, whichever is  
21 less.

22 By referencing Section 620.240(e)(1)(A),  
23 are you telling me that that's what you relied on for  
24 the definition of compliance point and its use of

1 this 25 foot distance?

2 MR. DUNAWAY: Let me look at my rules.

3 MS. FRANZETTI: Sure.

4 MR. DUNAWAY: That's the definition of  
5 compliance point for a potential primary or secondary  
6 source taken from 620, and since we said it was --  
7 that this definition is consistent with that, that's  
8 a reference to where compliance point is defined in  
9 620.

10 MS. FRANZETTI: And as you just noted,  
11 that's the definition -- that's the definition for  
12 the compliance point when you're dealing with primary  
13 and secondary sources under Part 620?

14 MR. DUNAWAY: Yes.

15 MS. FRANZETTI: Can you just briefly, for  
16 all of our benefits, if you recall or if you've got  
17 the regs in fronts of you, what is generally the  
18 primary and secondary source for which Part 620  
19 provides this kind of compliance point?

20 MR. DUNAWAY: Hang on just a second.

21 MS. FRANZETTI: Sure. Thanks.

22 While you're looking, I'm asking because  
23 it's going to come up right in the very next  
24 question, so let's have everybody have a general

1 sense of what that means as we go on.

2 MR. DUNAWAY: Okay. It's a fairly long  
3 definition, but potential primary source --

4 MS. FRANZETTI: Feel to paraphrase, if  
5 you would like.

6 MR. DUNAWAY: Potential primary source  
7 means any unit or facility at a site not currently  
8 subject to removal or remedial action, which is  
9 utilized for the treatment, storage, or disposal of  
10 any hazardous or special waste not generated at the  
11 site, utilized for the disposal of municipal waste  
12 generated at the site, or other landscape waste -- or  
13 excuse me -- other than landscape or construction  
14 demolition debris, utilized for landfilling, land  
15 treating, or surface impounding or piling of any  
16 hazardous or special waste that is generated on site  
17 or other sites owned, controlled, or operated by the  
18 same person.

19 And then there's also a requirement for  
20 storage of hazardous substances, which is more than  
21 75,000 pounds above ground or 7,500 pounds below  
22 ground.

23 Potential secondary source means a unit  
24 or facility at a site not currently subject to rule

1 or remedial action, other than a potential primary  
2 source, which is utilized for landfilling, land  
3 treating, or surface impounding of waste that is  
4 generated on the site or at other sites owned,  
5 controlled, or operated by the same person, other  
6 than livestock or landscape or demolition debris,  
7 stores or accumulates any size more than 25,000, but  
8 not more than 75,000 pounds aboveground, more than  
9 2,500 or more, or 7,500 pounds below ground of  
10 hazardous substance.

11 Then there's an exemption for storage of  
12 fuel aboveground or below ground, pesticides,  
13 fertilizers, deicing agents and livestock waste  
14 handling, which probably we're not concerned about  
15 here.

16 MS. FRANZETTI: Okay. So now let me go  
17 on to question 19(a), and the question was asking:  
18 Why didn't the Agency follow the Zone of Attenuation  
19 approach and the distance that is allowed under the  
20 Zone of Attenuation approach as defined in Section  
21 810.103, which basically goes out a hundred feet from  
22 the edge of one or more adjacent units versus your  
23 use of the 25 foot distance?

24 And your answer was that the Agency

1 relied on Part 620 in determining where the  
2 compliance points were located. The smaller distance  
3 was adopted by the Board for potential primary and  
4 secondary sources, excluding landfills, in Section  
5 620.240(e) because these units are generally smaller  
6 than landfills and do not require a larger area for  
7 determining compliance.

8 First of all, a very specific question to  
9 make sure I understand your statement. When you say  
10 because these units are generally smaller than  
11 landfills, are we talking about CCW units, or is that  
12 referring back to the primary and secondary sources,  
13 excluding landfills?

14 MR. COBB: Well, when we were doing that  
15 as part of the groundwater standards docket under  
16 RD9-14(b), we had a specific subsection under Section  
17 620.250(a) that is related to a Zone of Attenuation  
18 for landfills. (E) was for potential and primary and  
19 secondary sources, which includes things like coal  
20 combustion waste surface impoundments, and now  
21 retrospectively, and it still makes sense, they're  
22 still generally smaller than most of the landfills  
23 that I've seen out there than it did back in 1991  
24 when we worked on this with the Pollution Control

1 Board, but that is what the Board adopted.

2 The unit was also defined in the Act  
3 under the definitions of the Act. The potential  
4 source definitions were, also.

5 MS. FRANZETTI: Yeah. I'm sorry,  
6 Mr. Cobb. I'm now -- I'm still unclear.

7 When this answer says because these units  
8 are generally smaller than landfill, are we referring  
9 to CCW units there?

10 MR. COBB: Yes.

11 MS. FRANZETTI: Okay. So given the use  
12 of generally smaller, would you agree, though, that  
13 there are CCW units that are certainly as big as a  
14 lot of landfills?

15 MR. COBB: I don't have that kind of  
16 comparative data to know that, no.

17 MS. FRANZETTI: All right. Well, how big  
18 do you think a landfill is, when we're talking here  
19 that CCW units are generally smaller than landfills?  
20 What is in the Agency's head is the size of a  
21 landfill that a CCW unit is smaller than?

22 MR. COBB: Well, taking a tour of Lake  
23 County in that area, some of them are much greater  
24 than -- maybe the largest impoundment I've seen is

1 400 acres. I've certainly seen landfills double or  
2 triple that size, and most of the surface  
3 impoundments I've seen are nowhere near the largest  
4 that I've seen, which is about 400 acres.

5 MS. FRANZETTI: Okay. Did the Agency go  
6 back and look at the underlying record and the  
7 rulemaking that you were referring to earlier in your  
8 answer to see on what basis there was a distinction  
9 drawn between landfills and primary and secondary  
10 sources?

11 MR. COBB: Yeah. I remember what the  
12 basis was. The landfill regulations were already in  
13 existence and had kind of a zone -- they had a Zone  
14 of Attenuation, which is really -- you know, you  
15 can't monitor underneath the unit. That's the basis  
16 of this whole thing. You've got to move some way  
17 out. You need a little bit of room to work  
18 horizontally and vertically. That's the whole  
19 purpose of this.

20 And yes, those rules were already adopted  
21 by the Board at the time when we were doing the Part  
22 620 -- or Part 620 regulations.

23 So yes, I remember the rationale because  
24 I was involved in it. We were saying there are also

1 these other units, other than the landfills, that we  
2 probably should give a similar but conservative  
3 compliance area to work with that, and that was the  
4 basis.

5 MS. FRANZETTI: Okay. So from your  
6 recollection, the basis wasn't that -- a feeling that  
7 the regs had been wrong when they adopted the hundred  
8 foot plane for landfills.

9 MR. COBB: No.

10 MS. OLSON: May I ask a follow-up  
11 question?

12 Rick, to your knowledge, are service  
13 impoundments included in the definition of landfills  
14 found in Part 810 of the Board's regulations?

15 MR. COBB: No, they are not.

16 MS. OLSON: So do landfills have Zones of  
17 Attenuation -- or excuse me. Let me start over.

18 Do service impoundments have Zones of  
19 Attenuation as provided in 35 Ill. Adm. Code 811 to  
20 814.

21 MR. COBB: No, they do not.

22 MS. OLSON: That's all I have.

23 MS. FRANZETTI: Well, is your compliance  
24 point approach similar to a Zone of Attenuation

1 approach, or no?

2 MR. COBB: As I just described, we built  
3 off of that Zone of Attenuation approach. Yes, it  
4 is.

5 MS. FRANZETTI: Right. You just chose to  
6 use a shorter distance.

7 MR. COBB: We chose to be preventive.  
8 That was the intent of the Illinois Groundwater  
9 Protection Act is to be preventive, and these are  
10 areas in which to work with. There were some  
11 conditions on the -- on those areas under the  
12 groundwater standards, too, that I don't think have  
13 been mentioned that the source of any release of  
14 contaminants has been controlled within that area,  
15 and migrations within the site resulting from the  
16 release of groundwater has been minimized. So I'm  
17 not sure your three times the standard example may be  
18 correct.

19 I mean, you have to meet these standards,  
20 so it's an area in which to work with it. It's not a  
21 pollution zone, though.

22 MS. FRANZETTI: Okay.

23 MR. RAO: Mr. Cobb, are you also aware of  
24 under the landfill rules when they have a hundred

1 foot zone that zone is coupled with a very detailed  
2 groundwater impact assessment that needs to show that  
3 they comply with the standards for a hundred years.

4 MR. COBB: Yeah.

5 MR. RAO: That's kind of different from  
6 what's being proposed here.

7 MR. COBB: Exactly. Remember, these  
8 units have -- didn't have design standards from the  
9 get-go with modeling done from the get-go that showed  
10 the technology controls a hundred years after closure  
11 were going to be in compliance at that Zone of  
12 Attenuation point of compliance a hundred years after  
13 closure.

14 So when we were, you know, trying to be  
15 cognizant that there are other things than landfills,  
16 potential primary and secondary source, we proposed  
17 to the Board this area and the Board adopted that for  
18 these other types of units.

19 MR. RAO: Okay.

20 MS. FRANZETTI: Moving to 19(b). In the  
21 proposed federal coal combustion residual rules, it  
22 is proposed that the compliance boundary be  
23 established at 150 meters downgradient of the unit  
24 boundary or the facility property line, whichever is

1 closer. Did the Agency consider using the 150 meters  
2 distance instead of the lateral distance of 25 feet  
3 and, if so, why did the Agency reject the use of the  
4 150 meters distance?

5 The Agency Responds: The Agency elected  
6 to follow the compliance distance already applicable  
7 to these units pursuant to Section 620.240(e)(1)(A),  
8 and by that -- and by saying the Section  
9 620.240(e)(1)(A) provision is already applicable to  
10 these units, it is because you feel they're within  
11 the definition of a primary or secondary source; is  
12 that correct?

13 MR. COBB: Yes.

14 MS. FRANZETTI: Okay. Putting aside the  
15 fact that you believe Section 620.240(e)(1)(A)  
16 already applies to these CCW units, given that you're  
17 now enacting or proposing to enact specific  
18 regulations for CCW units, did the Agency conduct an  
19 evaluation of the EPA's reasoning for using the 150  
20 meter distance and, in fact, find it inappropriate  
21 for whatever reason?

22 MR. COBB: We considered and evaluated  
23 the 150 meter distance; however, the monitoring that  
24 we've seen conducted at these facilities, which I

1 don't believe USEPA has, but we do have site-specific  
2 monitoring, it certainly appears that the monitoring  
3 wells that were established relative to the Board's  
4 existing compliance points still seems to make sense.

5 We don't have tremendous offsite  
6 groundwater contamination, and we didn't have Zones  
7 of Attenuation around these units like we did  
8 landfills. We have groundwater contamination, but it  
9 still seems that the tighter distances are  
10 applicable, in our opinion, and appropriate.

11 MS. FRANZETTI: Is there anything  
12 specific to CCW units that makes you say that 25 feet  
13 is more appropriate than the USEPA's proposed 150  
14 meter distance, or where, if the property line is  
15 closer?

16 MR. COBB: Well, landfills have liners,  
17 and they're designed with the modeling up front.  
18 Landfills, in my opinion, as I described earlier,  
19 still appear to be a lot larger than what I've seen  
20 as the typical or general surface impoundment.

21 Like I say, the largest impoundment that  
22 I'm aware of is 400 acres, and most of them are  
23 significantly less than that.

24 MS. FRANZETTI: Moving on to 19(c).

1           In the Part 814 landfill regulations, in  
2 Section 418.402(b) (3), it is provided that upon a  
3 petition by the owner or operator, the Board may  
4 provide for a Zone of Attenuation and adjust the  
5 compliance boundary. Is it correct that such a  
6 provision for petitioning the Board to provide a Zone  
7 of Attenuation and to adjust the compliance boundary  
8 is not included in these rules, and if not, why not?

9           And the Agency responded that the  
10 proposed rules do not contain this provision because  
11 anyone can seek an adjusted standard from the Board's  
12 rules of general applicability pursuant to Section  
13 28.1 of the Act.

14           So am I correct that the Agency's view is  
15 it's really unnecessary to say in these rules that an  
16 owner or operator can petition the Board for some  
17 change because if you can make your showing under an  
18 adjusted standard, you've got that right?

19           MR. COBB: That's my understanding.

20           MS. FRANZETTI: Okay. And my concern is  
21 just -- and that's why I want that on the record --  
22 because 814 has an express provision that one may  
23 argue, well, if you were allowed to do that under the  
24 Part 841 rules, once they become effective, it would

1 have said you could, and it doesn't, so that's the  
2 difference.

3 So that's why I want to make it clear,  
4 the Agency is not attempting by leaving out that kind  
5 of language to foreclose adjusted standard relief;  
6 you just don't feel it's necessary because  
7 everybody's got that right under the Act.

8 Okay. All right.

9 Question 20. I do have a follow-up  
10 question on your answer, so let me read this one,  
11 also.

12 Section 811.317 of the Solid Waste  
13 Landfill rules addresses groundwater impact  
14 assessments and provides for a systematic assessment  
15 of the impacts of the seepage of leachate from a  
16 solid waste unit, including the use of a groundwater  
17 contaminant transport model. Please explain whether,  
18 and if so, how, the Agency considered this approach  
19 to assessment of impacts from CCW surface  
20 impoundments in these proposed rules?

21 Agency responds: The Agency did consider  
22 this approach to assessment of impacts from CCW  
23 surface impoundments in these proposed rules for both  
24 a corrective action at a unit and closure of a unit.

1 The proposed rule includes the Corrective Action  
2 Sections 310(e) and (f), as well as the Section  
3 410(a) and (b) which addressed this issue.  
4 Specifically, Section 310(e) requires that the  
5 corrective action plan include groundwater monitoring  
6 modeling results and supporting documentation be  
7 provided as applicable to establish a GMZ. Again,  
8 the Closure Plan Section 410(a)(7) requires the  
9 groundwater modeling results and supporting  
10 documentation be provided where appropriate to  
11 establish a GMZ.

12 My question is, is what you are saying is  
13 that while you didn't mirror the language that's in  
14 Section 811.317, in general, the technical aspects of  
15 the groundwater impact assessment to be done under  
16 these proposed rules is going to be the same.

17 MR. BUSCHER: I'm not sure that it's  
18 going to be the same, but it's similar in principle.

19 MS. FRANZETTI: Moving to question 21.  
20 I'm going to paraphrase here because I don't have a  
21 follow-up question until 21(c).

22 These questions deal with, in part,  
23 statistical analysis with respect to the results of  
24 groundwater monitoring, and with respect to question

1 (c), which is, if a statistical analysis is applied  
2 to make this determination -- and that's relating to  
3 confirming existing concentrations of contaminants --  
4 is it an intra well statistical analysis that is  
5 required for each of the GMZ wells?

6 And the Agency responded: An intra well  
7 statistical analysis may be used.

8 Our question is, what else could be used?  
9 You're saying may be used. We don't know what else  
10 you could use, other than this type -- other than a  
11 statistical analysis.

12 MR. DUNAWAY: Okay. When you say intra  
13 well statistical analysis, are you talking about a  
14 technique specifically that uses the background from  
15 a -- wait a minute. Let me start over again.

16 Are you talking about a statistical  
17 technique where the existing concentrations for a  
18 well are established and then the results are --  
19 later results are compared to that, or are you  
20 talking about intra well in as much as each  
21 monitoring well is a compliance point?

22 MS. FRANZETTI: Mr. Dunaway, I never took  
23 statistics in college, something that I really regret  
24 now, so I'm going to turn it over to Mr. Gnat to

1 answer your question.

2 MR. GNAT: The intent of the question is,  
3 and we'll have some questions further on that, the  
4 statistical analysis can be pretty complex the way  
5 these are laid out, and at some point we're going to  
6 be looking at intra well statistics for wells and  
7 maybe specific parameters within an individual well,  
8 which need to be evaluated separately.

9 So once we're going into this GMZ, and  
10 then we've got to provide our determinations, the way  
11 the question was answered is that an intra well  
12 statistical analysis may be used.

13 What we're saying is, right now it  
14 appears that's the only tool that can really address  
15 some of these questions. So is there something else  
16 out there that the Agency is aware of that would be  
17 acceptable to you as we're doing these evaluations,  
18 or is this really the only avenue that we have, in  
19 which case it's not that it may be used, it's the  
20 only tool that's available at that level of detail.

21 MR. DUNAWAY: I'm not sure I understand  
22 from your questions where you're referring to the  
23 intra well would be the only method that would be  
24 acceptable.

1 MR. GNAT: For example, and this deviates  
2 a little bit off here, but it intertwines with some  
3 questions further down.

4 We've established a groundwater  
5 management zone. We're evaluating the performance of  
6 the source control measure that was employed, you  
7 know, as monitored within the groundwater management  
8 zone. We have a compliance point within that  
9 groundwater management zone of whichever monitoring  
10 well we're looking at. We really have to look at it  
11 on an individual basis at that point, if our upgraded  
12 versus downgradient statistics don't fit the standard  
13 use.

14 So you're looking at a single well.  
15 Making a determination, am I going to be -- am I in  
16 compliance or not within my groundwater management  
17 zone, and you have to run statistics on the parameter  
18 on an intra well basis to make that determination.

19 Is there any other way that we can show  
20 compliance at that location, short of doing the  
21 statistics?

22 MR. DUNAWAY: I believe in the case  
23 you're describing, an intra well analysis would be  
24 the only way to do that.

1 MR. GNAT: Thank you.

2 MS. FRANZETTI: I'm going to move to  
3 question 22. This question related to whether it was  
4 correct with respect to the proposed leachate  
5 definition, that it also excludes and does not apply  
6 to the ash slurry or combination of ash and  
7 wastewater within the conveyance system used to  
8 transport it to the surface impoundment unit, or  
9 basically the CCW unit. And the Agency Response is  
10 no. Why not?

11 MR. COBB: It's the definition of  
12 leachate that would propose not the applicability  
13 section to the rule that makes me answer this no.  
14 It's based on how the question was asked.

15 MS. OLSON: When you answered this  
16 question, were you evaluating whether or not the  
17 structures that contained the ash slurry, or  
18 combination of ash and wastewater within the  
19 conveyance system was applicable to this rule?

20 MR. COBB: No.

21 MS. OLSON: Were you just evaluating  
22 whether or not the definition of leachate would be  
23 applicable to the ash slurry or combination of ash  
24 and wastewater?

1 MR. COBB: Yes, because it could be  
2 moving through those units.

3 MS. OLSON: So the context of the  
4 conveyance system would be considered under the  
5 definition of leachate under this proposed rule.

6 MS. FRANZETTI: I thought you were going  
7 to go to the next step, which -- would you answer  
8 this question, based on not the definition of  
9 leachate, but what we're trying to understand is, is  
10 the conveyance system subject to these rules?

11 MR. COBB: If it has leachate in it.

12 MS. OLSON: Let me ask another question.  
13 What part -- a part of the conveyance system would  
14 include a pipe; is that correct?

15 MR. COBB: Yes.

16 MS. OLSON: Is a pipe a surface  
17 impoundment?

18 MR. COBB: No.

19 MS. OLSON: Are pipes covered under this  
20 rule?

21 MR. COBB: No. So that part of the  
22 conveyance system would not be considered under these  
23 rules; is that right?

24 MR. COBB: Correct.

1 MS. OLSON: Is there any particular part  
2 of the conveyance system that you believe is a  
3 surface impoundment?

4 MEMBER OF THE PUBLIC: Could you repeat  
5 the question, please? It's hard to hear you back  
6 here.

7 MS. OLSON: Is there a part of the  
8 conveyance system that is considered to be a surface  
9 impoundment?

10 MR. COBB: No, it's all based on the  
11 leachate definition.

12 MS. OLSON: Is it possible that a  
13 site-specific situation may arise where there would  
14 be an impounding structure intertwined with the  
15 conveyance?

16 MR. COBB: Yes.

17 MS. FRANZETTI: Moving on to question 23,  
18 Previous Investigations, Plans and Programs.

19 My question related to testimony on page  
20 18 of your pre-filed testimony, and it was: Has the  
21 Agency reviewed the previous assessments and the  
22 components of the Compliance Commitment Agreements  
23 entered into between it and Midwest Gen for the  
24 Midwest Gen stations as shown on Attachment 1 to your

1 testimony and determined that all of the components  
2 required in this section are included.

3 The Agency Response: The Agency has not  
4 reviewed the previous assessments and components of  
5 the CCAs and compared them to the requirements of the  
6 proposed rule.

7 My question is, will the Agency be doing  
8 that review at some future time?

9 MR. COBB: First of all, I would probably  
10 want to wait to see what the rule requirements are  
11 before we do that assessment, so after that's done, I  
12 can anticipate we would probably be doing that.

13 MS. FRANZETTI: Okay. So if I understand  
14 your answer correctly, you won't do this review until  
15 the final -- any final rulings are adopted in this  
16 proceeding?

17 MR. COBB: Yes.

18 MS. FRANZETTI: And at some point  
19 thereafter, though, is it the Agency's intention to  
20 take a look at existing work that's already been done  
21 by companies and apprise them whether or not it feels  
22 that that work does satisfy the requirements of any  
23 final rules adopted in this proceeding?

24 MR. COBB: Absolutely. The rules require

1 that that work be resubmitted and repackaged in case  
2 we're missing something; and, yes, there is a  
3 requirement on us to review that.

4 MS. FRANZETTI: If Midwest Gen believes,  
5 based on its understanding of the final rules, that  
6 the previous assessments that it's done meets the  
7 requirements of these rules, then it could simply  
8 just resubmit those to you for review?

9 MR. COBB: Yes.

10 MS. FRANZETTI: Okay.

11 We're now at the questions for Bill  
12 Buscher, Subpart C, Corrective Action, question 1.  
13 Excuse me just a second.

14 I don't have any follow-up questions  
15 until I get to 1(b), so I'm going to go to that  
16 question.

17 If the groundwater concentrations above  
18 the groundwater standards for the particular  
19 constituents detected in both upgradient and  
20 downgradient monitoring wells for a unit are  
21 substantially the same, or if the concentration  
22 levels of groundwater exceedances concentrations for  
23 the constituents in the downgradient well are lower  
24 than in the upgradient well, is this sufficient

1 evidence for the Agency to determine that the release  
2 is not associated with the unit? And, if not, what  
3 else is necessary?

4 Agency Response: No. In this case, the  
5 groundwater flow conditions would need to be  
6 carefully evaluated. Many of the impoundments are  
7 located near rivers or lakes where groundwater flow  
8 direction may change on a regular basis due to the  
9 change in elevation of the water body.

10 So tell me what -- if the groundwater  
11 flow direction changes in a given location of a CCW,  
12 then what does the owner or operator have to do to  
13 make its alternative cause demonstration?

14 MR. BUSCHER: You know, I think it's a  
15 site-specific call, and I'd need really more  
16 site-specific information.

17 I will say one thing: Due to the nature  
18 of these impoundments, you can have groundwater flow  
19 that flows out regularly, so in the process of your  
20 question, you are simplifying geometry, and it could  
21 very well be as stated in your question that you have  
22 contaminants quote-unquote, upgradient, that are due  
23 to the impoundment, and that would not surprise me.

24 MS. FRANZETTI: Uh-huh.

1 MR. BUSCHER: And I understand, you know,  
2 where you're going but, you know, that's a physical  
3 fact. I've seen it happen. And my point with the  
4 river is that the river is another complicating  
5 factor.

6 MS. FRANZETTI: I understand. But it's  
7 also the case that the reason that your upgradient  
8 well has got higher levels of a constituent in it  
9 than does your downgradient well, even though the  
10 downgradient well may also be somewhat the standard,  
11 is because the actual source is somewhere upgradient  
12 of the upgradient well, and so what we're trying to  
13 understand here is, how do you show the Agency in  
14 that situation that it's not a CCW unit that's the  
15 cause of the impact?

16 MR. BUSCHER: As I stated in the  
17 response -- excuse me for a moment.

18 You would need to look more closely at  
19 evaluating groundwater flow, the specific flow at the  
20 site.

21 MS. FRANZETTI: Why? To what end? I  
22 don't understand what you mean by saying more closely  
23 evaluate.

24 MS. OLSON: Can I jump in?

1 MS. FRANZETTI: Sure.

2 MS. OLSON: Would it depend on the facts  
3 of the site? So if you've got groundwater flow  
4 information in front of you that's very  
5 straightforward, it's simple geometry, the conclusion  
6 would be easy to reach. It would be that the  
7 upgradient well has higher contamination than the  
8 downgradient well from a source other than the unit.  
9 Is that a possible solution you could reach based on  
10 your evaluation?

11 MR. BUSCHER: That's a conclusion one  
12 could reach, yes.

13 MS. OLSON: Then, is it also true that  
14 you could look at the direction of the groundwater  
15 flow and conclude that there's radial groundwater  
16 flow, and therefore you cannot make that conclusion  
17 that the upgradient well is not necessarily from a  
18 source other than from a unit?

19 MR. BUSCHER: That is correct.

20 MS. OLSON: So what -- did you have to  
21 evaluate the difference -- the groundwater flow at  
22 each site to be able to answer this question?

23 MR. BUSCHER: Yes.

24 MS. FRANZETTI: Am I correct in

1 understanding that it's the Agency's position that if  
2 there's any doubt as to whether or not the cause of  
3 the impact is the unit or something else, you are  
4 going to feel authorized under these rules to say the  
5 owner or operator has not satisfactorily demonstrated  
6 it's an alternate source?

7 MR. BUSCHER: There's a section in this  
8 regulation that allows the regulated entity to make  
9 just the argument that you're referring to, I  
10 believe, and that was our intent, and if you were not  
11 to agree with the conclusion we would draw, you've  
12 got the opportunity to go to the Board.

13 MS. OLSON: Can I ask one more question,  
14 or a couple questions? Bill, can you explain to me  
15 what a potentiometric surface map is?

16 MR. BUSCHER: Certainly. A  
17 potentiometric surface map is a map very similar to a  
18 topographic map that shows lines of equal elevation,  
19 and in the case of a potentiometric surface map, it  
20 shows lines of equal elevation in the surface of the  
21 water and the groundwater saturated zone surface, top  
22 of it.

23 MS. OLSON: If you were provided with a  
24 potentiometric surface map, could you evaluate the

1 groundwater flow for a particular site?

2 MR. BUSCHER: Yes.

3 MS. OLSON: Would it help you determine  
4 whether or not the source of the pollution is the  
5 unit or some other source offsite?

6 MR. BUSCHER: Yes. That would be an aid,  
7 yes.

8 MS. FRANZETTI: I don't have any  
9 follow-up on 1(c) or (d). Is it okay if I just move  
10 on to question 2?

11 HEARING OFFICER FOX: Mrs. Franzetti, I'm  
12 not seeing any indication that 1(c) or (d) has  
13 generated any follow-up, so please go ahead.

14 MS. FRANZETTI: Okay. And I'd also like  
15 to skip 2 because I think the Agency response is  
16 understandable, and I don't have any follow-up  
17 questions.

18 Okay. Moving to 3. Do the proposed  
19 rules allow for the use of a Tiered Approach to  
20 Corrective Action, acronym is TACO, as provided under  
21 Part 742 of 35 Ill. Adm. Code, and, if not, why not?

22 And the Agency Response is: No. The use  
23 of a Tiered Approach to Corrective Action, or TACO,  
24 as provided under Part 742 of 35 Ill. Adm. Code is

1 not intended for these sites. The impoundments at  
2 these sites are operated under permits issued by the  
3 Agency must be in compliance with permit conditions.

4 Go back to my very first question on the  
5 first page, because I'm not following this "under  
6 permits" reference.

7 I asked if the proposed 841 rules  
8 establish a new permit program, and the answer is no,  
9 but now to justify the exclusion of TACO to these  
10 units, the answer is, they're operated under permits  
11 issued by the Agency. I am confused. Can you help  
12 clarify?

13 MR. BUSCHER: That would be under a  
14 Subtitle C permit to operate these units.

15 MS. FRANZETTI: What is a Subtitle C  
16 permit?

17 MR. BUSCHER: It includes NPDES or 309  
18 Subtitle -- Subpart A in the state operating permit  
19 under 309 Subpart B.

20 MS. FRANZETTI: Okay. It includes NPDES  
21 permits. That is one category of what the -- what a  
22 Subtitle C permit can be.

23 MR. BUSCHER: That's my understanding.

24 MS. FRANZETTI: And it also includes for

1 309 state operating permits.

2 MR. BUSCHER: That's my understanding.

3 MS. FRANZETTI: All right. So is it the  
4 Agency's understanding that all of the Midwest Gen  
5 impoundments that you've got listed in Attachment 1  
6 are either covered by an existing NPDES permit or by  
7 the 309 state operating permit?

8 MR. BUSCHER: Okay. No person should  
9 violate -- it's construct, install, or operate any  
10 equipment, facility, vessel, or aircraft capable of  
11 causing or contributing to water pollution. So it's  
12 a requirement under the regulation.

13 MS. FRANZETTI: Okay. So --

14 MR. BUSCHER: Under the Act. Under the  
15 Environmental Protection Act, excuse me.

16 MS. FRANZETTI: And because there is some  
17 permit, whether it's 309 or NPDES permit that is  
18 applicable to the CCW units, even though those  
19 permits don't address all the issues you're trying to  
20 address under these proposed rules, the Agency's  
21 taking the position that TACO should not be  
22 applicable because these units are already subject to  
23 a permitting program.

24 MR. BUSCHER: Yes.

1 MS. FRANZETTI: Okay.

2 Moving then to question 4. Question 4  
3 relates to the use of an institutional control  
4 prohibiting potable water use as part of an owner or  
5 operator's corrective action plan, whether or not it  
6 is the Agency's intention under these proposed rules  
7 that corrective action plans may incorporate and rely  
8 on the provisions for institutional controls that are  
9 provided in Subpart J of the Part 742 TACO  
10 regulations.

11 I mean, that is my question, and, if so,  
12 where is that provided in the proposed rules, and, if  
13 not, how will the Agency make the determination of  
14 what is or is not an acceptable institutional  
15 control?

16 The Agency Response is: The use of a  
17 TACO as provided under Part 742 of 35 Ill. Adm. Code  
18 is not intended for these sites. The Agency will  
19 make the determination of what is or what is not an  
20 acceptable institutional control prohibiting potable  
21 water use at a site on a case-by-case basis.

22 Why, when there are provisions under TACO  
23 about what are and what are not appropriate  
24 institutional controls when addressing similar

1 releases, are you not willing to utilize the  
2 provisions that have been established and have been  
3 used now for a number of years by the Agency under  
4 Part 742?

5 MR. BUSCHER: As long as their use has a  
6 correct authority, I think that's where this -- the  
7 use or not the use of them really depends upon the  
8 authorization of the use in the Act.

9 MR. COBB: In the Part 841 rules, we  
10 specify that you can use an institutional control  
11 after every effort has been made to clean up the  
12 groundwater down to an asymptotic level. That was in  
13 my pre-filed testimony.

14 Further, under TACO, there's a  
15 requirement that there's total closure. It isn't the  
16 case with many of these units at these facilities  
17 that are part of a wastewater treatment system.

18 So there's a business distinction here  
19 between totally closing out and cleaning up and  
20 eliminating versus some of these are still being  
21 used.

22 MS. FRANZETTI: What are you referring to  
23 under TACO as totally closing up?

24 MR. COBB: Let's get back to you on that.

1 That's my understanding.

2 MS. FRANZETTI: All right. Would you  
3 agree that there are TACO projects that go on at  
4 operating facilities where they might have addressed  
5 a specific release, but they're still going to be  
6 operating and using those same types of contaminants,  
7 but they've addressed an initial release. Similarly  
8 here, you could address a release from a CCW, but it  
9 may continuing operating.

10 MR. COBB: Let me -- in your statement  
11 you used the word facility, not unit. We're talking  
12 about units.

13 MS. FRANZETTI: I understand you are.

14 MR. COBB: Yeah. So you may use TACO for  
15 some other unit at one of your facilities that is not  
16 covered by this regulation, not a CCW unit. Maybe  
17 it's a coal pile or some other legacy activities  
18 that's not a CCW impoundment. That's the  
19 distinction.

20 MS. FRANZETTI: I understand. I was  
21 trying to show you that under TACO you don't  
22 necessarily have closed up everything or removed  
23 everything in order to be able to utilize the TACO  
24 approach to getting a no further remediation letter.

1 MR. COBB: My understanding is we were  
2 changing the language to talk about the individual  
3 unit at that facility, that you would have to close  
4 out that unit; not the entire facility, but you would  
5 have to quit using that unit.

6 MS. FRANZETTI: Okay.

7 MR. COBB: It would have to be closed and  
8 removed.

9 MS. FRANZETTI: I understand that's your  
10 position.

11 MR. COBB: There's a big distinction  
12 between facility and unit.

13 MS. FRANZETTI: Now, with respect to this  
14 statement that the Agency will make the determination  
15 of what is or what is not an acceptable institutional  
16 control prohibiting potable water use on a site on a  
17 case-by-case basis, what criteria are you going to  
18 use?

19 MR. COBB: What we're looking at is if  
20 you have a corrective action or you have a  
21 groundwater management zone, essentially what we'll  
22 be looking at in trying to determine if an  
23 institutional control is appropriate is looking at  
24 Section 620.424, the alternative groundwater

1 restoration standards, and if you've done every  
2 effort you can do to mitigate that impairment and  
3 you're reaching some asymptotic level, as I provided  
4 in my testimony, there may not be anymore cleanup  
5 that can be done.

6 So it's at that time, then, that  
7 alternative water supplies, if it's an offsite  
8 concern or an onsite institutional control, may be  
9 appropriate.

10 So essentially, you know, the standard  
11 that we're looking at is in Section 620.454(b), the  
12 concentration that's determined by groundwater  
13 monitoring. If the standard exceeds the applicable  
14 numerical standard for such constituent that to the  
15 extent practicable, the exceedance has been minimized  
16 and beneficial use is appropriate for the class of  
17 groundwater's been returned, and any threat to public  
18 health of the environment has been minimized.

19 So that's the standard in saying, are we  
20 at a point where we have to adopt an institutional  
21 control offsite and/or onsite. Has every effort been  
22 done to do what I just read.

23 MS. FRANZETTI: I actually want to go  
24 back for a moment to the TACO point and your

1 understanding that TACO requires that the unit be  
2 closed out, you know, and where a CCW could continue  
3 operating.

4 So let's change the scenario to an owner  
5 or operator is closing the CCW, but there is an  
6 impact to the groundwater that's already occurred.

7 Then are the TACO -- is the TACO approach  
8 appropriate? Because you're dealing with the same  
9 situation where, as you say, the unit has been closed  
10 down.

11 MR. COBB: I think the lead-in to the  
12 TACO or site remediation program is that it's usually  
13 determined by each agent, each bureau media within  
14 the Agency, and we still have the groundwater  
15 management zone option, which is what we do in the  
16 Bureau of Water.

17 MS. FRANZETTI: Yes, but TACO applies to  
18 groundwater as well. I don't understand the  
19 distinction here.

20 MR. COBB: Groundwater management zones  
21 also apply to groundwater.

22 MS. FRANZETTI: I understand, but why  
23 should be it be different as to how TACO handles  
24 groundwater impact when the unit has been closed down

1 versus how these rules address groundwater impacts.  
2 That's what I'm not understanding, why you feel you  
3 need to exclude TACO principles in what seems to be a  
4 very similar situation. Groundwater's impacted,  
5 source is addressed, it's closed. That's what I'm  
6 trying to understand.

7 MR. COBB: I believe this approach is  
8 more protective and keeps in concert with the  
9 nondegradation provisions in Section 12.

10 TACO is set up for voluntary cleanups.  
11 These are under the permits. They violated the  
12 permit conditions, they violated the groundwater  
13 standards, and the GMZ is appropriate and applies.

14 MS. FRANZETTI: In TACO, they've violated  
15 the groundwater standards, haven't they?

16 MR. COBB: Is there enforcement, or is it  
17 a voluntary program? To me, it's a voluntary program  
18 and not an enforcement program.

19 MS. FRANZETTI: And that's the  
20 difference.

21 MR. COBB: All of these have the units.

22 MS. FRANZETTI: Right. So if you've  
23 enforced, then the party you've enforced against  
24 should be held to a stricter standard than the party

1 who voluntarily addressed the situation.

2 MR. COBB: No.

3 MS. FRANZETTI: No.

4 MR. COBB: No.

5 MS. FRANZETTI: Well, you're the one who  
6 pointed out it's enforcement and not a voluntary  
7 program. I'm trying to understand why that makes a  
8 difference to you.

9 MR. COBB: These are permitted sites and  
10 they're operating under permits. These are permitted  
11 units that are operating under permits. Most of the  
12 units that are being cleaned up under TACO are not  
13 under any Agency unit specific permit program.

14 MS. FRANZETTI: And that is the  
15 distinction you're relying on.

16 MR. COBB: Yes. Correct.

17 MR. JENNINGS: Can I ask a couple of  
18 follow-up questions? Again, I'm James Jennings.

19 MR. JENNINGS: So, Rick, is it your  
20 understanding that TACO applies to a certain subclass  
21 of Agency programs?

22 MR. COBB: Yes.

23 MR. JENNINGS: Do you know off the top of  
24 your head what those subclasses are?

1 MR. COBB: Leaking underground storage  
2 tanks, kind of abandoned sites, you know, sites that  
3 aren't under subject to corrective action programs.

4 MR. JENNINGS: So are you aware of any  
5 CCW surface impoundments that would be subject to the  
6 rules that govern leaking underground storage tanks?

7 MR. COBB: No.

8 MR. JENNINGS: Are you aware of any CCW  
9 surface impoundments that would be subject to the  
10 rules covering the SIP program?

11 MR. COBB: No.

12 MR. JENNINGS: Are you aware of any CCW  
13 surface impoundments that would be subject to RCRA  
14 Part B rules?

15 MR. COBB: No.

16 MR. JENNINGS: Are you aware, or is it  
17 your understanding, that the TACO rules could apply  
18 to other programs, so long as those programs don't  
19 have other more direct qualifications for cleanup, or  
20 in this case, groundwater standards?

21 MR. COBB: Yes.

22 MR. JENNINGS: Does Part 841 establish  
23 specific cleanup standards for groundwater?

24 MR. COBB: Yes.

1 MR. JENNINGS: Okay.

2 MS. FRANZETTI: What are the specific  
3 cleanup standards that are established by Part 841?

4 MR. COBB: Well, we incorporate by  
5 reference the Part 620 standards under the  
6 groundwater management zone and the alternative  
7 restoration standards.

8 MS. OLSON: So, Rick, can you please tell  
9 us what section would be for alternative groundwater  
10 quality standards at a site that has contamination?  
11 What Section in 620?

12 MR. COBB: Section 620.450.

13 MS. OLSON: And those would be the  
14 cleanup groundwater quality standards?

15 MR. COBB: Absolutely.

16 MS. FRANZETTI: And I take it you see a  
17 difference between underground storage tanks that may  
18 contain hazardous constituents versus a CCW unit  
19 release.

20 MR. COBB: These contaminants -- the  
21 contaminants are different. These are inorganic  
22 contaminants that have a nondegradation potential  
23 that if they were to go offsite or if there was to be  
24 a well drilled onsite certainly can't be removed by

1 the lowest common denominator of a potable water  
2 supply if it's Class I groundwater, private drinking  
3 water well, because most of these contaminants -- to  
4 remove these contaminants would be more sophisticated  
5 treatment than, say, removing gasoline constituents.

6 In fact, as I provided in my testimony,  
7 in most cases, removing TDS or some of these other  
8 inorganics would require reverse osmosis treatment  
9 technology to remove it, and so Class I groundwater  
10 is to protect current and future sources of drinking  
11 water, which the lowest common denominator is a  
12 private drinking water system, and the nondegradation  
13 provisions that no person shall cause, threaten, or  
14 allow additional treatment or more treatment than  
15 what's already been provided in that situation.

16 Adding TDS, chlorides, sulfates, all  
17 these contaminants would certainly be above and  
18 beyond the naturally occurring level, and to get it  
19 back down to that level, it would require some pretty  
20 sophisticated treatment.

21 MS. FRANZETTI: Okay. Moving on to  
22 question 5, and if you'd just give me a minute, this  
23 is where I ran out of time before we came back to  
24 lunch, so I haven't had a chance to read your

1 answers.

2           Okay. Question 5 deals with the  
3 situation with where ash is left in place and draws  
4 the comparison to a closed solid waste landfill where  
5 waste is also left in place, and asks why are these  
6 CCW specific closure rules necessary instead of  
7 simply applying the same closure rules that already  
8 exist for solid waste landfills under Parts 811 and  
9 814.

10           And the Agency Response is: These  
11 surface impoundments are not landfills. The Illinois  
12 Pollution Control Board has determined that a  
13 site-specific rulemaking was in order for the  
14 Hutsonville Ash Pond D, and then references the AS  
15 09-01 Hutsonville proceeding.

16           My question is, I understand the Board  
17 said that surface impoundments are not landfills, but  
18 do you read the Board's decision in Hutsonville to  
19 say that there is no relevance or applicability  
20 potentially of the Part 811 and 814 requirements for  
21 closing a solid waste landfill that are equally  
22 applicable or suitable to apply to a CCW unit being  
23 closed in place?

24           MR. BUSCHER: I believe that the reason

1 we're here is there's a radial tour gap that we're  
2 trying to fill with respect to these -- promulgating  
3 these regulations, and that's -- you know, these are  
4 not landfills. They do not have liners. They are  
5 what they are, and I don't think that applying those  
6 other regulations -- I kind of think we're talking  
7 apples and oranges.

8 MS. FRANZETTI: Did you conduct that  
9 review? Did you look at the Part 811 and 814  
10 requirements?

11 And first, I should say I'll take your  
12 answer. That's not the case for my client's  
13 impoundments, but let's first deal with that.

14 Did you look at 811 and 814 and say for  
15 something that's not lined, none of these are  
16 relevant or appropriate? Was that review conducted?

17 MS. OLSON: I'm sorry. Can you repeat?  
18 I don't understand the question.

19 MS. FRANZETTI: The question is, in your  
20 preparation of these proposed rules, did you look at  
21 Part 811 and 814 provisions and determine none of  
22 them would be relevant or appropriate to an unlined  
23 surface impoundment?

24 MR. BUSCHER: Well, in this regulation,

1 we considered both lined and unlined. Our  
2 expectation is obviously some of them are lined; some  
3 of them are not.

4 MS. FRANZETTI: Do you treat them  
5 differently whether they're lined or unlined for  
6 purposes of the closure process?

7 MR. BUSCHER: I don't believe so.

8 MS. FRANZETTI: Okay. So that's my  
9 point. So let's move to, you've got a lined CCW unit  
10 like a lined landfill. Did you take a look at the  
11 Part 811 and 814 requirements and say, you know,  
12 these are pretty similar creatures. We can apply a  
13 lot of what's been in place for landfills to the CCW  
14 units and not create a whole new program that has its  
15 own unique requirements?

16 MR. DUNAWAY: This is Lynn Dunaway. We  
17 did look at 811 and 814, and any of the aspects of  
18 these rules that we felt might be applicable, we --  
19 not all of them necessarily, but we did incorporate  
20 some of the aspects in here.

21 An example might be if you had a lined  
22 facility, we required that the surface cover have a  
23 hydraulic conductivity that was less than that bottom  
24 liner so that we wouldn't be creating bathtubs. We

1 think that's a good concept.

2 MS. FRANZETTI: And on what basis did you  
3 reject whatever elements of 811 and 814 that you did  
4 reject? What was your basis?

5 MS. OLSON: Can I just ask one question  
6 to kind of clarify? Did we specifically reject any  
7 of the provisions of 811 or 814?

8 MR. DUNAWAY: Not that I recall.

9 MS. FRANZETTI: All right. Is it your  
10 position your requirements for closure are the same  
11 as 811 and 814 requirements?

12 MR. DUNAWAY: No. It wasn't as much that  
13 we rejected certain ones, as we incorporated some  
14 that we thought should be applicable to these types  
15 of units.

16 MS. OLSON: Let me just ask a series of  
17 follow-up questions that may help clarify.

18 Is this rule intended to set forth a  
19 process to close a facility or to do corrective  
20 action?

21 MR. DUNAWAY: Yes.

22 MS. OLSON: So does this rule contain all  
23 of the technical components that would be necessary  
24 to properly close or do corrective action?

1 MR. DUNAWAY: Yes.

2 MS. OLSON: Isn't it possible that the  
3 site-by-site characteristics would be explained in  
4 the corrective plan or the closure plan versus being  
5 detailed in these rules?

6 MR. DUNAWAY: Yes.

7 MS. OLSON: So when we didn't reject the  
8 requirements in 811 and 814, is it possible that  
9 those requirements, if a facility wanted to follow  
10 those requirements, they could put those in your  
11 closure plan or their corrective action plan and  
12 their agency would review them?

13 MR. DUNAWAY: Yes.

14 MS. FRANZETTI: That helps. That does  
15 help. That's what we're trying to understand here,  
16 but it isn't clear from the proposed rules.

17 All right. So if Midwest Generation  
18 feels that it's got a CCW unit that it's closing and  
19 it is analogous to a landfill, because it is lined,  
20 it could go over to Part 811 and 814, look at what  
21 the requirements are there, the ones it thinks are  
22 appropriate, applicable, adequate, it could suggest  
23 to you be applied in its approved closure plan.

24 MR. DUNAWAY: As long as they're

1 consistent with the proposed rule, yes.

2 MS. FRANZETTI: Well, I guess I'm  
3 thinking that the proposed rule allows one to do  
4 that.

5 MR. DUNAWAY: Maybe I should say, as long  
6 as they're not inconsistent with the proposed rule.

7 MS. FRANZETTI: Okay. All right.

8 MS. OLSON: And it would also be the fact  
9 that they would have to be protective of groundwater?

10 MR. DUNAWAY: Yes.

11 MS. FRANZETTI: Okay. Moving on to  
12 question 6.

13 On page 6 of your pre-filed testimony,  
14 you state: Quote, If all ash is removed from the  
15 impoundment, a final cover system would not be  
16 required, but the impounding structure would need to  
17 be removed, end quote.

18 If all ash is removed, explain what the,  
19 quote, impounding structure, end quote, consists of  
20 and why it also must be removed in order to complete  
21 the closure process.

22 Agency Response: The, quote, impounding  
23 structure, end quote, refers to containment system  
24 components which include the liner and liner subbase.

1 The liner does not include the berm or impounding  
2 structure.

3 MS. OLSON: We made an error. The "or  
4 impounding structure" is an error. It's just  
5 supposed to be the berm. I apologize.

6 MS. FRANZETTI: That's okay. That's why  
7 I had that funny look on my face.

8 All right. I'm just going to keep  
9 reading and then when I have a question, I'll say it.

10 So I'm on 6(a). Has the Agency  
11 considered that the same level of protection could be  
12 achieved by allowing the alternative of cleaning the  
13 liner surface of CCW compromising its integrity to  
14 allow precipitation to pass through it and then  
15 backfilling with clean fill?

16 Answer: The Agency considered this issue  
17 and believes that there will be cases where a liner  
18 could be cleaned, and this approach has merit as long  
19 as the closure plan is protective of groundwater.

20 So this -- am I understanding correctly  
21 that this is something the Agency is willing to  
22 consider favorably?

23 MR. BUSCHER: Yes.

24 MS. FRANZETTI: And did you consider in

1 answering this question whether you think the  
2 proposed language of the rule would allow for this,  
3 or do we need to -- do we need to take a look?

4 MS. OLSON: If you would just keep  
5 reading to the next question, you'll see the answer.

6 MS. FRANZETTI: Okay. Moving on to 6(b),  
7 has the Agency considered what the potential  
8 additional cost is to an owner or operator of having  
9 to remove the impounding structure and transport and  
10 dispose of it in a landfill.

11 Agency Response: Yes. The Agency has  
12 taken these comments under consideration and  
13 recommends the Board delete the, quote, removal of  
14 containment systems components, end quote,  
15 requirement found in Section 841.400(b) from the  
16 proposed rules. The Agency requests the Board  
17 consider this proposed change.

18 I'm not going to read the language.  
19 Everybody's got a copy of this to read it and we can  
20 all consider it further. Thank you.

21 Mr. Gnat was trying to inform me that you  
22 did back off in your answer 6(b). Next time, you can  
23 kick me under the table.

24 Okay. Closure Prioritization, question

1 7. On page 5 [sic] of your pre-filed testimony, you  
2 state: "A unit is enacted if it has not received  
3 coal combustion waste or leachate from coal  
4 combustion waste within the most recent period of 18  
5 months. If an impoundment has not received ash for  
6 18 months, it is expected that the power plant has  
7 other impoundments it is utilizing.

8 Question 7(a). If an impoundment is  
9 undergoing some type of repair or renovation or ash  
10 removal that extends for a period of over 18 months,  
11 would it have any means under the proposed rules to  
12 request and receive an extension of this 18-month  
13 period, so that it was not required to proceed to  
14 submit a closure plan given its intent to continue  
15 using the unit? And your answer is no.

16 So please explain to me why you're  
17 opposed to allowing an owner or operator who may have  
18 what is probably not a typical situation, but is a  
19 situation where that pond is going to be unused for  
20 over 18 months, but they want to keep using it after  
21 that point, and it could be that some work is going  
22 on regarding the pond that winds up taking more than  
23 18 months, whether it's due to a labor strike,  
24 whether it's due to whatever, it's out of commission

1 for more than 18 months, but not with the intention  
2 not to resume using it.

3 Why is the Agency opposed to some  
4 flexibility in these rules to allow what may be  
5 unusual conditions, but valid conditions, to be  
6 considered?

7 MR. BUSCHER: Could you look at the next  
8 question?

9 MS. FRANZETTI: No. Here we go again.  
10 Hang on. Okay but -- no? That doesn't do it. I  
11 mean 7(b), if such an extension provision is not in  
12 the proposed rules, is the Agency willing to consider  
13 one, and you say: No. The owner or operator may  
14 elect corrective action instead of closure.

15 But I don't -- why do they have to go  
16 into corrective action just because the impoundment,  
17 due to some type of repair or renovation, is out of  
18 commission for a little more than 18 months? I don't  
19 think that adequately addresses that situation to  
20 say, well, you can elect corrective action. Or  
21 explain to me why it is.

22 MR. BUSCHER: Well, if you don't have a  
23 groundwater problem, you're not required to do  
24 either.

1 MS. FRANZETTI: We can keep it inoperable  
2 for more than 18 months and that's okay.

3 MR. BUSCHER: Yes. Yes.

4 MS. FRANZETTI: All right. But let's say  
5 there is a hit of one constituent above a standard.

6 MR. BUSCHER: Well, then, you're going to  
7 need to look at your options of closure or corrective  
8 action or alternative costs. That's on the table  
9 also.

10 MS. FRANZETTI: I'm going to have  
11 Mr. Gnat give you an example of what is of concern to  
12 us.

13 MR. GNAT: Well, an example would be,  
14 we've got a pond that we have some groundwater issues  
15 that we're dealing with, whether or not we agree to  
16 associate with the pond or not, but we've relined the  
17 pond, but that pond then goes offline. We're using  
18 another pond in the meantime, and it's going to take  
19 us anywhere from nine months to twelve months, say,  
20 to really clean out all of the ash out of that pond,  
21 and as we're doing that, let's just say the  
22 contractor breaches our liner.

23 So now we not only have the nine or  
24 twelve months in which we're removing ash so that we

1 can use that pond, we now have a condition where the  
2 pond liner has been breached through the process,  
3 which can happen, and so now we've got to go into  
4 repair of that liner, which may conceivably take more  
5 than six months.

6 So now we have a pond where we have  
7 addressed diminutive groundwater issues. The pond  
8 was in operation. We took it offline to do a  
9 standard maintenance and routine taking the ash out  
10 of it, like we do in all of our ponds. The liner  
11 gets nicked, we need more time, and this goes over 18  
12 months.

13 Why can we not ask, you know, say, hey,  
14 under this situation we need another six months  
15 before we finish our liner repair, and then we're  
16 clearly wanting to bring this pond back in service.

17 MR. BUSCHER: Do you plan to close this?

18 MR. GNAT: No. We're planning to bring  
19 it back into service. We took it off service so that  
20 we can remove the ash, which we do in all of our  
21 ponds on a periodic basis.

22 MR. BUSCHER: And you are doing  
23 corrective action? If you're doing corrective  
24 action --

1 MS. FRANZETTI: Under the hypothetical,  
2 you are doing it, but it's not successful yet, right?

3 MR. GNAT: Correct.

4 MR. BUSCHER: Well, then you're not  
5 closing it. I mean --

6 MS. OLSON: Let me ask a follow-up  
7 question. Did the closure prioritization deadlines  
8 contained in Section, I think, 401.405 apply to a  
9 unit if it's not closing?

10 MR. BUSCHER: No.

11 MS. OLSON: So if you're not closing that  
12 unit, does the active/inactive distinction have any  
13 applicability?

14 MR. BUSCHER: No.

15 MS. FRANZETTI: So as long as it's your  
16 intent to use it again, and as long as you've got  
17 some sort of corrective action in process, no matter  
18 whether it's yet effective, totally effective, you  
19 can have that unit be out of order for more than 18  
20 months.

21 MR. BUSCHER: With that corrective action  
22 having been approved.

23 MS. FRANZETTI: Right.

24 MR. BUSCHER: Yes.

1 HEARING OFFICER FOX: I thought I saw  
2 that there was a question back in one of the further  
3 rows. He's indicating that he doesn't have it any  
4 longer.

5 MS. FRANZETTI: Moving to question 8. We  
6 don't have any follow-up on question 8, so I'm going  
7 to skip to the questions for Lynn Dunaway.

8 Would you mind if we took a ten-minute  
9 break?

10 HEARING OFFICER FOX: Ms. Franzetti, I  
11 think it's probably about the time to do that. We've  
12 been back at it for about two hours now. Why don't  
13 we take ten minutes and resume at 10 'til 3:00.

14 (A ten-minute recess was taken.)

15 HEARING OFFICER FOX: Thank you all for  
16 returning after the break.

17 Ms. Franzetti has looked over some  
18 additional questions and is ready to resume where we  
19 had left off, which, as I recall, was with question  
20 number 8 directed to Mr. Buscher. Am I correct?

21 MS. FRANZETTI: Yes. And based on taking  
22 the break, we don't have any questions with respect  
23 to question 8, and so unless anyone else does, we are  
24 ready to move to the questions for Lynn Dunaway.

1 HEARING OFFICER FOX: Very good. Go  
2 ahead, Ms. Franzetti.

3 MS. FRANZETTI: Okay. And with respect  
4 to the questions for Lynn Dunaway, we're going to  
5 skip questions 1 and 2 and go to question 3 on  
6 determining background values because we don't have  
7 any follow-up questions on the Agency responses to  
8 questions 1 and 2.

9 With respect to question 3, let me go  
10 ahead and read 3 and 3(a), and then I'm going to  
11 actually turn it over to Mr. Gnat for some follow-up  
12 questions.

13 On page 2 of your pre-filed testimony,  
14 you state, quote: In the proposed Part, the term,  
15 quote, background, unquote, is applied broadly,  
16 because background values must be calculated for all  
17 monitoring wells, not just those wells which are  
18 upgradient of regulated units, end quote. Is the  
19 term background in the proposed rules interpreted or  
20 applied differently here than it is for solid waste  
21 landfills under Parts 811 and 814 of the existing  
22 Board regulations? If so, please explain what the  
23 difference is and why the Agency is proposing to  
24 apply the term background differently for CCW surface

1 impoundment units versus landfills.

2           The Agency Response: In these proposed  
3 rules, background is interpreted as existing  
4 concentrations of chemical constituents in  
5 groundwater which may or may not have been impacted  
6 by a unit regulated pursuant to this proposed Part;  
7 may originate from anthropogenic activities (other  
8 than regulated units) that may or may not be owned or  
9 controlled by the owner or operator of a regulated  
10 unit; or may arise from naturally occurring  
11 variability in groundwater quality. CCW surface  
12 impoundments are specifically excluded from the  
13 definition of landfills.

14           Question 3(a): Why isn't the requirement  
15 to develop background values for all wells, both  
16 upgradient, downgradient and/or otherwise, limited to  
17 those situations where there's high spatial  
18 variability in the overall data set or where a  
19 representative upgradient data set cannot be  
20 generated?

21           Agency Response: The variability of  
22 conditions at the various facilities throughout the  
23 State results in multiple combinations of possible  
24 complicating factors. The proposed Part is a rule of

1 general applicability and must be applicable in all  
2 situations.

3 Mr. Gnat.

4 MR. GNAT: I guess my question stems  
5 from, at least the way I read the proposed rule, and  
6 Lynn, your testimony there, is if I was to have to  
7 develop a statistical program for a site, I would not  
8 only have to at this point look at upgradient versus  
9 downgradient, but I would right away also have to  
10 start calculating background for each individual well  
11 within the system on an intra well basis as well, so  
12 I'll have background upgradient -- or upgradient  
13 versus downgradient, and I'll also have background  
14 for each individual well.

15 You know, statistics can become very  
16 complicated very quickly. You're generating various  
17 background numbers, and at some point it's easy to  
18 lose which value am I going to be looking for  
19 compliance with.

20 My understanding in the approach that  
21 I've normally looked at for statistics in situations  
22 like this is, first, to keep it as simple as we can.  
23 First, we look at the data sets for upgradient  
24 background and if that data set is appropriate to

1 calculate an upgradient background, and the  
2 downgradient sets suggest that you don't have that  
3 spacial variability, so you can use the upgradient  
4 versus downgradient comparisons. Then you will use  
5 those because it's a very direct and simple  
6 comparison, very easy to track, you know, still a  
7 statistical analysis with a lot of robust to it, but  
8 it's an easy thing.

9           The only time, then, that I would then  
10 start looking at intra well comparisons and start  
11 calculating a separate background data set at a  
12 specific, say, downgradient well is in a situation  
13 where the upgradient versus downgradient scenario  
14 just doesn't work for various statistical principles.

15           So let's just say that, you know, the  
16 upgradient versus downgradient works at just about  
17 every well location for most of the parameters,  
18 however, parameter X does not fit the scheme at wells  
19 A, B, and C. So I would go to wells A, B, and C, and  
20 on an intra well basis, then calculate the background  
21 for that particular constituent; not for every single  
22 constituent, not for every single well, but only for  
23 the ones that don't meet the upgradient versus  
24 downgradient, and that then precludes you from having

1 to do a statistical calculation for 22 parameters for  
2 background, not just upgradient or downgradient, but  
3 for each individual well. It should only be focused  
4 on those that you have to go to that next level of  
5 statistical analysis on to be able to make some type  
6 of conclusions.

7 MS. FRANZETTI: Do you agree? I knew it  
8 was coming. (Laughter.)

9 MR. DUNAWAY: Okay. I would certainly  
10 agree with keeping it as simple as possible because  
11 there certainly are a lot of constituents and there  
12 are a lot of possible scenarios that you may have to  
13 be looking at.

14 But the important thing, when you're  
15 setting up your monitoring plan, it includes  
16 calculating your background, is that you look at  
17 those different constituents and you apply a  
18 statistical method that is appropriate for meeting  
19 the needs of your site, which would be you have to  
20 make sure that you are meeting the nondegradation  
21 standards, if those are applicable at your site.

22 You would have to be set up that if you  
23 have, as you -- in your example earlier, you have an  
24 intra well situation where you already have a GMZ in

1 place and you're looking at ongoing compliance.

2           So I can't, you know, just sit here and  
3 say that it's -- there's one way to do it, but I  
4 think you have the gist of what we expect in that you  
5 have to look at what your site has, and there will be  
6 probably different methods that are appropriate for  
7 different sets of wells because they're monitoring  
8 different units.

9           Some of them may be downgradient of other  
10 units, so you may have to apply something a little  
11 different there than at a site where there's only one  
12 unit.

13           MR. GNAT: So you agree that there's a  
14 process of which you go through to make that  
15 determination.

16           MR. DUNAWAY: Yes.

17           MR. GNAT: And the way I read the  
18 proposed rule, however, suggests that I have to go  
19 out and calculate background at each individual well  
20 for every single parameter. At least that is the way  
21 I read and interpret the rule the way it's written.

22           From what you're saying, that is not the  
23 intent of the rule. The intent of the rule is to  
24 follow the process, and if you need to do that at a

1 specific well for a specific parameter, you do, but  
2 it's not, from the get-go, you have to be calculating  
3 background at each well for each parameter.

4 MR. DUNAWAY: I can't see how you can do  
5 the analysis -- I think the --

6 I may just have to get back to you on  
7 that. The way I see it is that there would be a  
8 background being calculated for all the parameters,  
9 because you're going to have to do that -- you're  
10 going to have to do some statistical evaluation to  
11 see which -- which analysis you're going to have to  
12 do for each well.

13 MR. GNAT: Correct. But what I'm trying  
14 to get to is that, normally, if I can calculate my  
15 upgradient background, that can be used in comparison  
16 and so on, and that's going to be based on one, two,  
17 or three wells which are upgraded that I can pool  
18 this data from and create this statistical comparison  
19 value.

20 I don't have to go to each individual  
21 downgradient well, which could be 10 or 12 or 15  
22 wells, and right up front calculate a background for  
23 each well, intra well background for each single  
24 parameter. I only have to do that if the upgradient

1 versus downgradient comparisons aren't appropriate  
2 for some other statistical reason.

3           The way I read right now is I have to  
4 calculate an upgradient background, and then in  
5 addition to that for every single well in my network  
6 right up front, I have to calculate a separate intra  
7 well background for every single parameter that's  
8 being analyzed, and that is as broadly as that's  
9 written, and that's why I'm asking clarification on  
10 it, because that's usually not what's done. It's  
11 something that might need to be done at some point in  
12 time for a subset of parameters at a subset of wells,  
13 but not for everything right up front.

14           MR. DUNAWAY: We're going to have to look  
15 at that and get back to you.

16           MR. GNAT: Thank you.

17           MS. FRANZETTI: Mr. Dunaway, you'll be  
18 happy to hear I have no follow-up questions for you,  
19 based on the Agency response to questions 4, 5, 6, 7,  
20 8, or 9. So I'm going to go to 10.

21           HEARING OFFICER FOX: Could we take one  
22 second to make sure that, since we would be going  
23 past the number of questions, if there are any  
24 follow-ups to the Agency's written responses to those

1 questions number 3 through 9?

2           Neither seeing nor hearing any,  
3 Ms. Franzetti, thanks for letting me interrupt you.

4           MS. FRANZETTI: Okay. Turning to  
5 question 10, top of page 24.

6           On page 6 of your pre-filed testimony,  
7 you state, quote: If the number of non-detects is  
8 large enough they may cause chemical constituent  
9 concentrations to be nonparametric, in such an  
10 instance, a different statistical method may be  
11 required to analyze the different chemical  
12 constituents that are nonparametric.

13           Question 10(a): Do you agree that the  
14 list of chemical constituents in Section 620.410(a)  
15 and (e) that an owner or operator is required under  
16 Section 841.215 to monitor for includes certain  
17 constituents which are not typically associated with  
18 coal ash, such as perchlorate and cadmium?

19           Agency Response. The Agency agrees that  
20 perchlorate is not typically associated with CCW.  
21 The Agency would recommend that the Board exclude it  
22 from the list of required constituents. However, CCW  
23 is known to contain small amounts of cadmium and  
24 various other metals .

1 My question is, do you know whether in  
2 any of the data or information that you introduced  
3 into the record here, is there information on this  
4 contention that CCW is known to contain small amounts  
5 of cadmium?

6 MR. DUNAWAY: I don't know if that  
7 information has been introduced into the record or  
8 not.

9 MS. FRANZETTI: Could you provide any  
10 information that supports that statement?

11 MR. DUNAWAY: Yes.

12 MS. FRANZETTI: Okay. Moving, then -- no  
13 further follow-up on the rest of the responses to  
14 Questions 10(b) and (c). No follow-up on question  
15 11. No follow-up on questions 12, 13, 14 or 15,  
16 Mr. Dunaway.

17 You are done, as far as I'm concerned,  
18 but we'll see if anyone else has anything.

19 HEARING OFFICER FOX: Is there anything  
20 else on those questions as follow-up regarding the  
21 Agency's written responses provided by Mr. Dunaway?

22 Neither seeing nor hearing any,  
23 Ms. Franzetti, we're ready to move on.

24 MS. FRANZETTI: These are questions for

1 Ms. Zimmer. You are not as lucky as Mr. Dunaway, but  
2 you're still somewhat lucky.

3 I'm going to skip question 1(a), and I  
4 have no follow-up questions to the Agency's response.

5 We do on question 1(b), so I'll read the  
6 question and response:

7 Section 841.200(b)(3) of the proposed  
8 rule provides a general statement that hydro geologic  
9 characterizations need to provide the data necessary  
10 to, quote, develop and perform modeling to assess  
11 possible changes and benefits of potential  
12 groundwater impact mitigation alternatives, end  
13 quote. When do the proposed rules contemplate this  
14 hydro geologic characterization is to be performed;  
15 before or after a release from a unit has been  
16 identified?

17 Agency Response. The Agency expects much  
18 of the hydro geological site characterization to take  
19 place before a release from a unit has occurred, as  
20 much of the data required for characterization is not  
21 release dependent. The Agency acknowledges that if a  
22 release were to occur, further investigation and  
23 characterization of the site may be needed to fill  
24 data gaps in order to effectively model potential

1 impacts and mitigation efforts.

2 What if the proposed -- here's my  
3 follow-up question. What if the proposed hydro  
4 geologic assessment initially approved by the Agency  
5 for a site that already had impacts, you know,  
6 whether or not they were impacts from the  
7 impoundments, and those assessments were okay, now,  
8 do we need to expand the scope of the assessment?

9 MS. ZIMMER: That is site specific. At  
10 this time, we haven't made any of those  
11 determinations. It's possible, but basically we're  
12 going to have to go through re-submittal once these  
13 rules -- the proposed rules are enacted, go through  
14 the re-submittal on that, put everything together to  
15 make sure when we review it that you're meeting all  
16 of the requirements of the proposed rule. So we  
17 haven't looked at that yet.

18 MS. FRANZETTI: Ms. Zimmer, a practical  
19 follow-up question.

20 MS. ZIMMER: Okay.

21 MS. FRANZETTI: Mr. Gnat informs me that  
22 doing the re-submittal of the assessment work that's  
23 already been done could result in submitting a pretty  
24 good stack of paper to the Agency.

1 MS. ZIMMER: Yes.

2 MS. FRANZETTI: Is it going to be  
3 acceptable to the Agency to simply reference previous  
4 submittals that have been made, rather than  
5 resubmitting all of the prior assessment work?

6 MS. ZIMMER: I would say no, just simply  
7 referencing is not appropriate because there's a  
8 potential under the proposed rules that something  
9 will change, and we have the possibility of missing  
10 something if it's not resubmitted.

11 MS. FRANZETTI: Well, I'm just not  
12 following why you would miss something. It's been  
13 previously submitted.

14 MS. OLSON: Let me ask a follow-up  
15 question.

16 MS. FRANZETTI: Okay.

17 MS. OLSON: Did we -- is one of the  
18 reasons why we want to require entities to resubmit  
19 the information to us is because we want to make sure  
20 that we get the complete set of information and not  
21 rely on the fact that we have previously got the  
22 information because we may not have it all.

23 MS. ZIMMER: Yes.

24 MS. FRANZETTI: When you say you may not

1 have it all, you mean you may not be able to find it  
2 all?

3 MS. OLSON: That would be one of the  
4 things that crossed the Agency's mind.

5 MS. ZIMMER: I think the other thing to  
6 keep in mind is conditions may have changed. Most of  
7 those assessments -- and they weren't really called  
8 hydro geologic site characterizations, they were  
9 called, I believe, site investigations.

10 Like I said, they may not meet all the  
11 requirements of the rule. It's kind of upon the  
12 facility to go through whatever the approved rule  
13 is -- I mean, right now, it's just proposed -- to  
14 make sure all those requirements are in there and  
15 package it up and present it to us, and we would  
16 expect any new data in the last two or three years to  
17 be included in that.

18 MEMBER OF THE PUBLIC: Could you pass the  
19 mic down to her? It's very difficult to hear.

20 HEARING OFFICER FOX: It may need to be a  
21 bit closer yet, Ms. Zimmer. It's pretty sensitive.  
22 Thank you.

23 MS. LIU: Would you mind, Ms. Franzetti,  
24 if I followed up on your question?

1 MS. FRANZETTI: No. Go right ahead.

2 MS. LIU: Since in Section 841.145 it  
3 would allow you to have the previous investigations  
4 and plans submitted to the Agency, could you comment  
5 on how the Agency would ensure that the existing or  
6 preexisting plans that were submitted are reflective  
7 of the current conditions if, for example, it would  
8 predate whatever type of current development might  
9 have occurred since those plans were prepared?

10 MS. ZIMMER: Are you talking about a  
11 specific -- like a specific plan, or like a  
12 monitoring plan, the ground monitoring system, or are  
13 we talking about the characterization, or are you  
14 talking about all three of those? I'm just trying to  
15 pin down if you have a specific --

16 MS. LIU: The provision that you have in  
17 Section 841.145 would apply to any hydro geologic  
18 site investigation or characterization, groundwater  
19 monitoring well or system, groundwater monitoring  
20 plan, groundwater monitoring management zone, or  
21 preventive response plans, etc.

22 HEARING OFFICER FOX: Ms. Zimmer, before  
23 you answer, the microphone is still not picking you  
24 up. I hate to ask you to pull it closer, but I think

1 that's the only way we'll be able to hear you as  
2 clearly as possible.

3 MS. ZIMMER: Can you repeat the actual  
4 question, then? I'm sorry.

5 MS. LIU: Would you please comment on how  
6 the Agency evaluates these preexisting plans that are  
7 allowed to be resubmitted to ensure that they're  
8 reflective of the current conditions; if, for  
9 example, they predate current developments? Like new  
10 homes moving in closer to the facility and putting in  
11 wells and things like that?

12 MS. ZIMMER: I think I'm going to have to  
13 get back with you on the issue regarding new homes.

14 With potable wells, I was thinking more  
15 along the lines I would be looking for more recent  
16 groundwater data and potentiometric maps showing  
17 current groundwater flow conditions. Like I said,  
18 the new potable well issue is something we'll have to  
19 get back to you on.

20 MS. LIU: Okay. Thank you.

21 MS. OLSON: May I ask a follow-up?

22 Would we ask the applicants or the  
23 facilities owners whether or not something has  
24 changed since the previous plan has been executed

1 when we get them back under this section?

2 MS. ZIMMER: Yes.

3 MS. OLSON: So we would know that there  
4 had been a change.

5 MS. ZIMMER: Yes.

6 MS. OLSON: And so then would we take  
7 that change into mind while we review the plans?

8 MS. ZIMMER: Yes.

9 MS. OLSON: And if we saw a problem,  
10 would we then contact the facility?

11 MS. ZIMMER: Yes.

12 MS. OLSON: And if we found that the  
13 previous plan was not sufficient because of any sort  
14 changes, would we deny it?

15 MS. ZIMMER: Yes.

16 MS. OLSON: That's all I have.

17 HEARING OFFICER FOX: Anything further,  
18 Ms. Liu?

19 MS. LIU: No, thank you.

20 HEARING OFFICER FOX: Very good.

21 MS. FRANZETTI: Ms. Zimmer, I'd like to  
22 go to question -- Subpart D of this question 1. I'll  
23 read the question and the response and then explain  
24 what I don't quite understand in your answer.

1           In your experience, do most initial site  
2 hydro geologic characterizations provide all the  
3 information required to develop a three-dimensional  
4 3D numerical groundwater model? Isn't it more  
5 typical to gather additional data once it is  
6 determined that a 3D numerical model is necessary,  
7 the model is constructed, and any data gaps are  
8 identified?

9           And the answer is no. Most initial  
10 site -- hydro geologic site characterizations do not  
11 provide all the information necessary. Please see  
12 answer to question 1(b) above, which is the question  
13 relating to the modeling necessary -- modeling  
14 necessary to be developed under Section  
15 841.200(b)(3).

16           Let me, though, get to the heart of my  
17 question.

18           Is it the Agency's position that in the  
19 initial site hydro geologic characterizations, you  
20 have got to generate enough information to develop a  
21 3D numerical groundwater model, whether or not there  
22 is any indication, there's any impacts on  
23 groundwater, problems with groundwater that require  
24 that.

1           That's what our concern is and what the  
2 proposed language is in the rules, that it's overkill  
3 to require that much right at the front end, and I  
4 can't tell from your answer whether you're saying,  
5 sorry, we think it's not and you've got to do it, or  
6 you are answering maybe a slightly different question  
7 that you thought I was asking. So with that  
8 clarification.

9           MS. ZIMMER: I'm not sure if I'm totally  
10 on the same page with you yet on the question.

11           MS. FRANZETTI: All right. What did you  
12 think I was asking?

13           MS. ZIMMER: You're asking if I'm  
14 requiring -- you're asking if we are requiring all of  
15 the data for a 3D model.

16           MS. FRANZETTI: Right up front.

17           MS. ZIMMER: Or should it be needed? Are  
18 you asking if a 3D model is required up front, or are  
19 you asking if the information is required up front?

20           MS. FRANZETTI: Take that first. That's  
21 what I'm asking first.

22           MS. ZIMMER: If the model is required up  
23 front?

24           MS. FRANZETTI: No. Do you have to

1 collect all the data necessary to develop a 3D model  
2 up front?

3 MS. ZIMMER: You do not have to collect  
4 all of the information because that would be  
5 impossible, I agree. You have to -- but we are  
6 expecting a hydro geologic site characterization to  
7 be heavily data consistent, containing much of the  
8 data that would be needed that would not be specific  
9 to a release sometime in the future, if that were to  
10 occur.

11 I mean, there are things related to the  
12 release, obviously, that -- you know, you'd have  
13 monitoring data showing what's showing up where. You  
14 might have some source information. But the basic  
15 geologic units, that data generally does not change.  
16 You should have a lot of that information. The  
17 geologic site characterization should have that basic  
18 geologic information in there.

19 And then I agree if you need to do a  
20 model, there may be data gaps that you will need to  
21 go find the data.

22 MS. ZIMMER: Okay. Thank you.

23 I'm going to jump to question 2(e) on  
24 page 30. Does anyone have any follow-up before I get

1 there? Okay.

2 The question is: Can risk-based  
3 evaluations be used to establish that the compliance  
4 point is appropriately established at a property  
5 boundary for the facility such as where there is no  
6 downgradient receptor?

7 Agency Response is: No. The compliance  
8 point definition is based upon Ill. Adm. Code Part  
9 620.240 and 620.250.

10 This, I think, hearkens back to some  
11 prior questions and answers from Mr. Cobb and others  
12 on this point. But can you explain what makes this  
13 situation with CCW units so unique, especially when  
14 other sites can have even worse health risks from  
15 what has been released, such as from chlorinated  
16 compounds, that taking this approach of applying the  
17 compliance point of the property boundary is not  
18 appropriate for CCW units?

19 MS. ZIMMER: I'm going to let Mr. Cobb  
20 answer this question.

21 MS. FRANZETTI: Okay.

22 MR. COBB: Same answer as I gave before.

23 As I said, this is based on the capability of  
24 downgradient private well owners having the

1 capability of using advanced treatment technologies  
2 to remove contaminants by TDS and boron and sulfates.  
3 It's not feasible.

4           You know, a homeowner could put a  
5 granular activated carbon unit in, or benzene, or  
6 trichloroethylene, or whatever. This type of stuff,  
7 the removal of this, is not feasible for a private  
8 well owner, I think is what I said my prior response.  
9 Same response.

10           MS. FRANZETTI: And that's your same  
11 response, even where there's no downgradient  
12 receptor?

13           MR. COBB: The groundwater standards  
14 under Part 620 for Class I is for existing and future  
15 uses of drinking water. So yes, that is my response  
16 because that's the Board's standards.

17           MS. FRANZETTI: Going to -- I don't have  
18 any follow-up questions on 3 and 4. I'm moving to  
19 question 5(c).

20           Okay. Do you agree that under the  
21 Unified Guidance, the minimum data requirements are  
22 generally eight rounds of data, and sometimes more,  
23 before an evaluation can be made as to what is the  
24 most appropriate statistical method to be applied?

1 If quarterly sampling is being conducted on the  
2 monitoring wells, would this indicate that at least  
3 two years of monitoring data should be collected  
4 before this explanation regarding the statistical  
5 method for background should be required to be  
6 submitted to the Agency?

7 The Agency Response: Under the  
8 assumption that eight rounds of sampling are required  
9 to establish background, and the sampling frequency  
10 is quarterly, two years of sampling data would be  
11 required. However, if eight rounds of sampling are  
12 required and the same sampling frequency was monthly,  
13 one year would provide an adequate data set.

14 Our question is, that given the fact that  
15 quarterly provides seasonal variability, eight rounds  
16 of monthly sampling will not allow for evaluation of  
17 seasonal, i.e., reproduced impacts. So whatever  
18 statistical evaluation is done may still not be  
19 appropriate using just eight months of monthly  
20 sampling data.

21 Would you agree with that, given that  
22 further consideration of seasonal impact?

23 MS. ZIMMER: I'm going to let Mr. Dunaway  
24 answer the question.

1 MR. DUNAWAY: That is a possibility,  
2 depending on what your monitoring shows.

3 MS. FRANZETTI: And so in that situation,  
4 the Agency probably would allow you to keep going in  
5 collecting data to get through at least four full  
6 seasons of data.

7 MR. DUNAWAY: Well, I think earlier we  
8 discussed that there may -- we're going to evaluate  
9 the background calculations or look at the evaluation  
10 of background, so I think if you demonstrated it to  
11 us that you could not make an appropriate statistical  
12 analysis, I think we would have to consider that.

13 MS. FRANZETTI: Ms. Zimmer, hang on for a  
14 second. I think we're done. Give me just a moment.  
15 We're done.

16 MS. ZIMMER: Thank you.

17 MS. FRANZETTI: Thank you.

18 HEARING OFFICER FOX: Any additional  
19 follow-up questions to those that were raised by  
20 Midwest Generation and Ms. Franzetti?

21 Neither seeing or hearing any,  
22 Ms. Franzetti, thank you very much.

23 As we had discussed at the top of the  
24 hearing, we have a second set of questions filed on

1 behalf of Medina Valley Cogen; a set of two  
2 questions, as it turns out. Ms Antoniolli is here  
3 and prepared to raise those with the Agency's  
4 witnesses.

5 It looks as if the folks from Midwest  
6 Gen, Ms. Antoniolli, are going to go back to their  
7 seats, and if you could give them a moment, there  
8 will be a microphone you can use to pose those as  
9 clearly as possible.

10 MS. FRANZETTI: As much as I do like  
11 being close to you, I'm willing to move.

12 HEARING OFFICER FOX: Ms. Antoniolli?

13 MS. ANTONIOLLI: Yes.

14 HEARING OFFICER FOX: It looks like  
15 you're ready to begin.

16 MS. ANTONIOLLI: Yes. My name is Amy  
17 Antoniolli from Schiff Hardin, and I'm here, as I  
18 mentioned earlier, on behalf of Medina Valley Cogen.  
19 I have with me Mr. Gary King from Arcadis.

20 MR. KING: My name is Gary King. I'm  
21 with the consulting firm, Arcadis.

22 MS. ANTONIOLLI: Also on behalf of Medina  
23 Valley.

24 HEARING OFFICER FOX: Ms. Antoniolli, did

1 you have a copy of your questions to the Agency that  
2 you want to introduce into the record to be  
3 considered as an exhibit today?

4 MS. ANTONIOLLI: I do. What number  
5 exhibit are we on?

6 HEARING OFFICER FOX: We are on Exhibit  
7 Number 7, and if you have a motion, I'd be happy to  
8 entertain that.

9 MS. ANTONIOLLI: Yes. I move to submit  
10 our pre-filed questions on behalf of Medina Valley  
11 Cogen for entrance as Exhibit 7.

12 HEARING OFFICER FOX: And you have heard  
13 the motion to admit those as Exhibit Number 7. Is  
14 there any objection on the part of anyone present?

15 Neither seeing nor hearing any,  
16 Ms. Antonioli, that will be marked and admitted into  
17 the record as Hearing Exhibit Number 7.

18 (Exhibit Number 7 was marked for  
19 identification and admitted into  
20 evidence.)

21 The Agency's witnesses, of course, have  
22 been sworn and appear to be ready for you to begin  
23 with the first of your questions.

24 MS. ANTONIOLLI: And before I start,

1 Mr. King would like to give a statement.

2 MR. KING: I just want to make a brief  
3 comment. It will only take about a minute or two.

4 HEARING OFFICER FOX: If I may,  
5 Ms. Antonioli, will this be in the nature of  
6 testimony for which we should swear him in, or does  
7 he wish to proceed right through the questions?

8 MS. ANTONIOLLI: Why don't you swear him  
9 in, and then if it arises in the context of our  
10 questions as well, he's already sworn in.

11 HEARING OFFICER FOX: Very good.  
12 Ms. Court Reporter, proceed with swearing him in.

13 (Witness sworn.)

14 MR. KING: My comment's real brief. I  
15 had a long career at Illinois EPA -- which, of  
16 course, I remember the folks on the Board side are  
17 familiar with me -- and I spent many days and many  
18 hearings sitting where Rick Cobb and Joanne Olson and  
19 the rest of the team are sitting answering questions.  
20 And this morning when I came in here, I saw the  
21 response to questions that they had put together, and  
22 in less than basically three weeks in putting those  
23 responses together in the concise, informative way in  
24 which they did, you know, I thought that took a

1 remarkable effort and it was a remarkable  
2 achievement, and I hope the Board will recognize  
3 that, and I hope your superiors at the Agency will  
4 recognize it as well.

5 That was it. That's all I have.

6 MS. ANTONIOLLI: We have two questions  
7 today, and I will start with the first, which begins:  
8 On pages 16 to 17 of the pre-filed testimony, Rick  
9 Cobb discusses the use of GMZs. The pre-filed  
10 testimony includes the following statement -- and I  
11 will paraphrase. This statement talks about the  
12 corrective action process under the GMZs.

13 Skipping to the second paragraph:  
14 Proposed Sections 841.310(e)(9) and 841.410(k)  
15 concerning corrective action plans and closure plans,  
16 respectively, allow the use of institutional controls  
17 without limiting them to restricted use ordinances.  
18 By using the term ordinance, please clarify whether  
19 IEPA intends to limit the use of institutional  
20 controls to municipally-adopted ordinances or whether  
21 the term ordinance is meant to be more generic and  
22 include institutional controls such as on-site or  
23 site-specific environmental land use controls.

24 And the Agency's Response is: The term

1 ordinance is used generically and intended to include  
2 institutional controls.

3 MR. KING: If I could just, then, ask a  
4 follow-up question to that.

5 I just wanted to clarify, because there  
6 was some discussion earlier, which I think tended to  
7 limit the nature of the answer and, in essence, the  
8 discussion was that you intended to allow any  
9 institutional control that would be allowed under the  
10 Environmental Protection Act and would be applicable.  
11 I think that was the testimony.

12 There is an Illinois law called the  
13 Uniform Environmental Covenant Act. The citation is  
14 765 ILCS 122, et.seq. That also allows for  
15 institutional controls to be in a different form.  
16 That is outside of the Illinois Environmental  
17 Protection Act.

18 I don't think -- your rules are not --  
19 the way that you've got the rules written, it would  
20 allow the use of the Uniform Environmental Covenants  
21 Act. I just didn't want to -- the testimony earlier  
22 seemed to limit that and I just wanted to seek some  
23 clarification on that.

24 MR. COBB: If it's allowed under the Act,

1 then I think you can use that type of instrument. In  
2 fact, if I recall, that may have been what was done  
3 under the site-specific Hutsonville rule that was  
4 recommended by one of our Agency attorneys. Ameren  
5 may know better than I.

6 MR. KING: That's all I have.

7 MS. LIU: I have follow-up.

8 I believe the Agency's response to the  
9 Board's Hearing Officer Order Question Number 46, the  
10 Board did mention the Uniform Environmental Covenants  
11 Act, as prompted by the Hutsonville rule, and the  
12 Agency response was that they would agree with  
13 including that.

14 MR. KING: Okay.

15 MS. ANTONIOLLI: Thank you.

16 MR. COBB: Thank you. I couldn't  
17 remember what I wrote. I knew I was close.

18 MS. ANTONIOLLI: And the second is, On  
19 page 4 of her pre-filed testimony, Amy Zimmer states:

20 In addition, if a groundwater management  
21 zone is approved as part of a corrective action,  
22 additional points of compliance in relation to the  
23 GMZ boundary and modeled or monitored extent of  
24 contamination may then be required to be monitored.

1           Ms. Zimmer's testimony implies that  
2 compliance points could simultaneously include  
3 locations very close to the unit and also farther  
4 away, based on the approved GMZ boundary. Please  
5 clarify whether it is IEPA's intention to have  
6 compliance points inside the GMZ boundary or whether  
7 the GMZ approval would establish the compliance  
8 points for as long as the GMZ is in place, which is  
9 what the definition of what "compliance point"  
10 states.

11           The Agency's response is: A GMZ is  
12 contaminant specific. Therefore, compliance point  
13 locations close to the unit would still apply for  
14 contaminants not part of the groundwater management  
15 zone.

16           We don't have follow-up -- well, I would  
17 say maybe the only follow-up question to this is,  
18 then, when at these locations you're monitoring that  
19 might be within a GMZ, would you also be monitoring  
20 for those constituents that are excluded?

21           Would you exclude those contaminants for  
22 which there is already a GMZ, or would you monitor  
23 for those also at those additional locations?

24           MS. ZIMMER: Okay. Let me see. If I'm

1 understanding your question correctly, you're asking  
2 if we would only at the GMZ compliance points, those  
3 monitoring wells, we would only be requiring sampling  
4 for the constituents that are part of the GMZ and any  
5 exceedance? Is that your question?

6 MS. ANTONIOLLI: Well, let me state it  
7 again.

8 Within the GMZ when there are monitoring  
9 locations, would the sampling at those locations  
10 exclude the contaminants that are within the GMZ for  
11 which there is a GMZ?

12 MS. ZIMMER: I'm still having trouble  
13 understanding which monitoring. Are we talking --  
14 let's specify. Are we talking the monitoring wells  
15 close to the unit, or are we talking about the ones  
16 that are at the boundary of the GMZ for the GMZ?

17 MS. ANTONIOLLI: The monitoring wells  
18 that are close to the unit.

19 MS. ZIMMER: Okay. We're monitoring them  
20 for the part -- the constituents that are part of the  
21 GMZ also?

22 MS. ANTONIOLLI: Right.

23 MS. ZIMMER: Okay. I'm sorry about that.  
24 I believe the answer is we would still require those

1 constituents to be monitored; it just wouldn't be a  
2 compliance monitoring, it would be more of just  
3 getting the information.

4 MS. ANTONIOLLI: Okay.

5 MS. ZIMMER: Okay.

6 MS. ANTONIOLLI: And one last sampling  
7 question.

8 Jumping back to the proposed Section  
9 841.230, the proposed section about sampling  
10 frequency, and my question is, would you consider  
11 following the approach adopted in the site-specific  
12 rulemaking for Hutsonville Pond D, which would be to  
13 drop the constituents after four consecutive samples  
14 from the list of monitoring constituents?

15 MR. COBB: Earlier, this topic came up  
16 during Ms. Franzetti's questions, and we indicated  
17 that, you know, we would defer to the Board, but we  
18 would be willing to look at a list and what they were  
19 thinking of in terms of that. So I think we've kind  
20 of -- we'll look at both, what Midwest Gen is  
21 proposing and what you're proposing.

22 MS. ANTONIOLLI: Uh-huh. Either way.  
23 Okay. That's all we have.

24 HEARING OFFICER FOX: Ms. Antoniolli,

1 thank you very much.

2 We have come to the point in our  
3 proceedings where we can turn to the questions that  
4 were filed by the environmental groups. Naturally,  
5 we have these groups' written responses, and we can  
6 turn this over to you in just a moment.

7 We do have a number of questions from the  
8 environmental groups placed into the record and a  
9 number of questions that the Board has, also. They  
10 would appear to indicate that we need to take  
11 advantage of the fact that this hearing was scheduled  
12 to continue until Thursday, if necessary, but we are  
13 here, and Mr. Armstrong appears to be ready, and we  
14 can begin with those.

15 We could also use the microphones back  
16 here, if that's easier for you.

17 MR. ARMSTRONG: Thank you. My name is  
18 Andrew Armstrong. I'm an attorney with the  
19 Environmental Law and Policy Center. I'm here today  
20 on behalf of the ELPC and to present pre-filed  
21 questions that ELPC filed on behalf of ELPC and other  
22 environmental groups.

23 I'm here with three other personnel:  
24 Jessica Dexter, from the Environmental Law and Policy

1 Center; Cindy Stukarich from the Sierra Club; and  
2 Traci Barkley from Prairie Rivers Network.

3 Starting off with our first pre-filed  
4 questions:

5 On page 2 of the Statement of Reasons,  
6 the Agency states that dry coal combustion waste  
7 (CCW) can be disposed of in a landfill. Could you  
8 please identify the power generating facilities in  
9 Illinois that utilize a dry ash handling system?

10 The Agency's Response was: Fly ash is  
11 the most common CCW material which is handled dry.  
12 In most cases, bottom ash is handled wet and may be  
13 dewatered and placed in a landfill. The following  
14 power generating facilities have ability to handle  
15 ash dry; and seven of the facilities are identified.

16 My first follow-up question is, when you  
17 state that the following power generating facilities  
18 have the ability to handle ash dry, are you referring  
19 to fly ash, then?

20 MR. BUSCHER: I am referring to fly ash,  
21 and there are instances where they handle bottom ash  
22 dry, but it usually would be after it has gone to  
23 some type of impoundment.

24 MR. ARMSTRONG: So when you state that

1 these facilities have the ability to handle ash dry,  
2 does that mean the facilities actually do handle ash  
3 dry?

4 MR. BUSCHER: That varies from site to  
5 site. There are some that handle it strictly dry,  
6 there are some that have the ability to do both, so I  
7 couldn't really discern, but there are instances  
8 where that's all they do, there are instances where  
9 they do it part-time.

10 MR. ARMSTRONG: So would you agree that  
11 it is technically feasible for a plant to handle all  
12 of its CCW -- I'm sorry -- all of its fly ash and  
13 bottom ash dry?

14 MS. OLSON: I don't understand when you  
15 say technically feasible, are you referring about any  
16 plant in the world?

17 MR. ARMSTRONG: Sure. Right.

18 MR. BUSCHER: I can't speak to any plant  
19 in the world, but it's my understanding that  
20 generally the way that bottom ash is handled is that  
21 it is handled wet initially. At some point in time  
22 thereafter, it can be landfilled, it could go to an  
23 impoundment. That's the only instance where --

24 For instance, I am aware that fly ash can

1 be handled dry and doesn't have to be wetted. Of  
2 course, once again, it is the prerogative of each  
3 operator to handle that in the manner in which they  
4 see fit.

5 MR. ARMSTRONG: Okay. I would like to  
6 introduce one exhibit just on bottom ash dry  
7 handling. I have an article from Power Magazine,  
8 July 2011, entitled, A Better Environmental Option:  
9 Dry Ash Conversion Technology.

10 So I've handed the Agency the article  
11 entitled, A Better Environmental Option: Dry Ash  
12 Conversion Technology. On page 2 of the document, it  
13 states that -- and I would move to submit this as  
14 Exhibit 8.

15 HEARING OFFICER FOX: That is the correct  
16 exhibit number.

17 You've heard Mr. Armstrong's motion to  
18 admit the article that has been distributed to a  
19 number of the participants as Hearing Exhibit Number  
20 8. Is there any objection to the motion?

21 MS. OLSON: Can I just take a second?

22 I have a question for you. The article  
23 appears to end on page 6, but then there are numerous  
24 pages 7 through 17. Can you explain what those are?

1 MR. ARMSTRONG: This would be the  
2 by-product of me printing it off the computer, and  
3 these appear to be various advertisements and other  
4 links that were associated with the article, so I  
5 apologize for that, but the article itself is  
6 confined to the first six pages.

7 MS. OLSON: The Agency has no objection  
8 to the first six pages of this document.

9 HEARING OFFICER FOX: Any other objection  
10 in response to the motion?

11 Mr. Armstrong, it will be marked as  
12 Exhibit Number 8, and we will note your  
13 acknowledgment that the substance of the article  
14 encompasses the first six pages of what you have  
15 submitted into the record.

16 (Exhibit Number 8 was marked for  
17 identification.)

18 MR. ARMSTRONG: Yes.

19 So turning to Exhibit 8, the fourth  
20 paragraph of the article states that: Now a new  
21 bottom ash management technology has developed that  
22 does not require the use of water and thereby avoids  
23 the creation of wet ash that has to be stored in  
24 surface impoundments or de-watering storage bins.

1 MS. OLSON: Is there a question?

2 MR. ARMSTRONG: I guess just following up  
3 on that, then, given the article, does the Agency  
4 believe that it's technically feasible to dry or  
5 handle bottom ash?

6 MS. FRANZETTI: I'm just going to pose an  
7 objection that the witness has not even had the  
8 chance to read the entire article, and simply citing  
9 to a sentence from it, I don't think is a fair  
10 question.

11 MS. OLSON: I second that objection.

12 HEARING OFFICER FOX: Any response to  
13 that, Mr. Armstrong?

14 MR. ARMSTRONG: I'll withdraw the  
15 question. I will move on to my second pre-filed  
16 question.

17 MS. ZEMAN: May I ask a question on  
18 number 1 before moving on to 2?

19 HEARING OFFICER FOX: Please go ahead,  
20 but announce your name and any affiliation you may  
21 have.

22 MS. ZEMAN: My name is Christine Zeman,  
23 Counsel for City Water, Light and Power in  
24 Springfield.

1           Regarding the -- and I don't know whoever  
2 put the answers together for number 1 here -- but  
3 regarding the list of facilities that handled ash  
4 using dry handling, Dallman Unit 4 utilizes dry ash  
5 handling for both bottom and fly ash.

6           Was your intent to only list those  
7 facilities that utilize dry across the entire  
8 facility, or all units, or did you simply omit  
9 Dallman 4 accidentally?

10          MR. BUSCHER: I was not aware -- I  
11 omitted accidentally Dallman 4.

12          MS. ZEMAN: Okay.

13          HEARING OFFICER FOX: Any further  
14 questions, Ms. Zeman?

15          MS. ZEMAN: No.

16          MR. ARMSTRONG: One additional question  
17 on -- a follow-up question on question 1.

18          At each of these facilities, can you tell  
19 us how many of the coal ash units at these facilities  
20 are currently operating?

21          MR. BUSCHER: This is with regard to  
22 number 1?

23          MR. ARMSTRONG: Yes.

24          MR. BUSCHER: What do you mean by

1 operating?

2 MR. ARMSTRONG: Accepting coal combustion  
3 waste.

4 MR. BUSCHER: Could you repeat the  
5 question?

6 MR. ARMSTRONG: With respect to the  
7 facilities listed in answer to question 1, can you  
8 advise how many coal ash impoundments at each of  
9 these facilities are currently receiving coal  
10 combustion waste?

11 MR. BUSCHER: I believe that that is  
12 in --

13 MS. OLSON: We're counting.

14 MR. ARMSTRONG: Okay. So --

15 HEARING OFFICER FOX: Do you want to wait  
16 just a moment, Mr. Buscher, to answer that question  
17 before you move on?

18 MR. BUSCHER: Yeah. I'm going to have to  
19 keep counting.

20 MR. ARMSTRONG: I've got a follow-up  
21 question, too. Exhibit N has the impoundments for  
22 each of the facilities, it appears. Would there be a  
23 way to submit a version of the Exhibit N that just  
24 lists whether these are active or inactive?

1 MS. OLSON: We elected not to do that at  
2 this stage.

3 MR. ARMSTRONG: Okay.

4 MS. DEXTER: Can I just ask a question?  
5 Do you anticipate presenting the list of which units  
6 are active and which are inactive at some point  
7 during rulemaking?

8 MS. OLSON: The Board has a question  
9 regarding that, and we can answer that question now  
10 if you want, but we are going to address it when we  
11 answer the Board's questions.

12 MS. DEXTER: Just to clarify, what I  
13 would like to see is -- I think what I've seen from  
14 the questions, your response to the Board's  
15 questions, is that there's a number, but it would be  
16 nice to know which units within the facility they  
17 are, especially when we have a list like this here,  
18 where we have a list of facilities here.

19 MS. OLSON: We decided we're not going to  
20 generate a list like that, primarily because we don't  
21 want to be wrong. I mean, there's a lot of reasons  
22 why we don't want to do that. We chose not to  
23 generate that list, and instead we answered the  
24 questions by listing them here.

1 MS. DEXTER: Okay. So, but are we ever  
2 in the rulemaking going to see that list?

3 MS. OLSON: You're free to generate that  
4 list, if you'd like. I mean, the answers are here.  
5 You can put it in a table and generate that list if  
6 you want.

7 MS. DEXTER: Sounds good.

8 MR. ARMSTRONG: Okay. Traci Barkley from  
9 Three Rivers has advised me that there is a list on  
10 the Agency's website that goes down by each facility  
11 and lists how many of the ponds are active and  
12 inactive, lined and unlined, so --

13 MS. OLSON: That may not be accurate. I  
14 mean, I can't tell you right now whether or not  
15 that's accurate.

16 MR. ARMSTRONG: Right. We don't have  
17 copies to submit it now, but we will -- I anticipate  
18 we will bring that information to the Board's  
19 attention.

20 HEARING OFFICER FOX: Mr. Armstrong, does  
21 your reference to the materials that you've located  
22 on the Agency's web page address the question you had  
23 posed to Mr. Buscher a moment ago?

24 MR. ARMSTRONG: Well, I guess we'd like

1 to get clarification if the information that we have  
2 is correct, and we would like to get it into the  
3 record about how many are active and inactive, lined  
4 and unlined, and which ones specifically.

5 MS. OLSON: I'm not exactly sure why this  
6 is relevant to the rulemaking. This rulemaking is  
7 setting up a process for these units to come in and  
8 do corrective action and closure and to monitor.  
9 We're not looking at any particular site, we're not  
10 looking at any particular surface impoundments. So  
11 the site-specific data requests, I'm struggling to  
12 find the relevance for the Board to make their  
13 decision on the Agency's proposal.

14 MR. ARMSTRONG: Well, we're just trying  
15 to establish the scope of the issue in Illinois how  
16 many active, inactive, lined and unlined impoundments  
17 there are that will be addressed by the rule.

18 MS. OLSON: So was the Agency's response  
19 of how many impoundments there are in Illinois an  
20 answer to that question? Because they would all be  
21 subject to this rule.

22 MR. ARMSTRONG: Correct. But we are  
23 trying to understand the extent to which those  
24 impoundments are actually already lined or unlined,

1 to the extent to which they're no longer receiving  
2 coal combustion waste.

3 MS. OLSON: How does that fact change the  
4 Agency's proposal to the Board?

5 HEARING OFFICER FOX: Let's step back  
6 just for a moment.

7 Mr. Armstrong, I think it would be  
8 helpful to rephrase or restate the question that you  
9 had originally posed to Mr. Buscher.

10 MR. ARMSTRONG: So our original question  
11 was simply with respect to the seven facilities  
12 listed in response to question 1, how many active  
13 impoundments are there at each of those facilities?

14 HEARING OFFICER FOX: And Mr. Buscher,  
15 plainly you've been preparing to answer that. Are  
16 you ready to do so?

17 MR. BUSCHER: I am ready to tell you that  
18 I estimated 20.

19 MR. ARMSTRONG: So 20 units, active  
20 units, at those facilities?

21 MS. OLSON: What do you mean by active?

22 MR. ARMSTRONG: Receiving coal combustion  
23 waste.

24 MS. OLSON: Today, yesterday, within the

1 last six months, within the last 18 months, within  
2 the last five years? Like what do you mean by  
3 active?

4 MR. ARMSTRONG: Within the Agency's  
5 definition of an active impoundment.

6 MS. OLSON: So within the last 18 months?

7 MR. ARMSTRONG: Sure.

8 MR. BUSCHER: I can't answer in the last  
9 18 months, but what I can answer is they can  
10 receive -- it's my understanding, based on the  
11 information I have, but as you know -- you know,  
12 whether they're receiving, really depends on  
13 operational considerations at each plant.

14 MS. OLSON: So it's possible that the  
15 number that you've cited, some of those facilities  
16 could not have received waste in the last 18 months?

17 MR. BUSCHER: That is correct.

18 HEARING OFFICER FOX: Any additional  
19 follow-up, Mr. Armstrong?

20 MS. DEXTER: I can help to clarify that.  
21 So I think we've talked a bit about the applicability  
22 of the rule, and there's sort of two branches:  
23 Either you are operating on or after the effective  
24 date of these rules, or you're not operating, but

1 there's a groundwater -- there's evidence that  
2 there's groundwater -- I can't read the exact  
3 language but --

4 So in order to understand whether the  
5 rule covers the scope of what it needs to cover, we  
6 need to have an estimate of, just take a snapshot of  
7 what's happening right now, who would fall under A1  
8 and who would follow under A2?

9 MS. OLSON: I'm not exactly sure that  
10 snapshot today would be an accurate depiction of what  
11 units would be falling under this rule until the rule  
12 becomes finalized, because there are things that can  
13 happen between now and when the Board finalizes its  
14 rule that would take some of those units out of this  
15 rule's reach. So it's really hard for the Agency to  
16 anticipate or speculate as to what units would be  
17 covered by this rule when it is adopted.

18 MS. DEXTER: Sure. And I don't think  
19 it's inappropriate for us to attempt to give the rule  
20 a test to see, to sort of say if this rule were  
21 effective today, how it would work.

22 MR. BUSCHER: Wouldn't we -- wouldn't I  
23 be required to speculate in order to answer that?

24 MS. DEXTER: It's not speculation. It's

1 how does that policy that we're developing work?

2 MS. OLSON: How does having a liner in  
3 place effect whether or not the rule is applicable to  
4 a coal combustion waste surface impoundment?

5 MS. DEXTER: That's two separate  
6 questions we're talking about.

7 MS. OLSON: But he's asking Bill about  
8 liners.

9 MS. DEXTER: He's asking about whether  
10 they are accepting coal combustion waste, which is  
11 the difference of, if this were effective today,  
12 that's the universe that would be covered by A1.

13 MR. BUSCHER: I've answered the question.

14 MS. DEXTER: And I think we've answered  
15 it to the extent we have, but I wanted to address the  
16 relevancy of this line of questioning.

17 HEARING OFFICER FOX: Further follow-ups  
18 on your first question, Mr. Armstrong, or are you  
19 ready to go on to number 2 at this point?

20 MR. ARMSTRONG: I'm ready to go on to  
21 number 2.

22 Question 2: On page 2 of the Statement  
23 of Reasons, the Agency states that some power  
24 generating facilities remove ash from surface

1 impoundments and dispose of it offsite. Could you  
2 please identify the power generating facilities in  
3 Illinois that remove CCW from impoundments for  
4 disposal elsewhere? And you identified four  
5 facilities that remove ash from surface impoundments  
6 and dispose of it offsite.

7 I guess my one follow-up question would  
8 be, do you agree, then, that CCW can be removed in a  
9 safe manner from surface impoundments if disposed  
10 offsite?

11 MR. BUSCHER: That's not my area of  
12 expertise.

13 MS. OLSON: Can you explain that?

14 MR. ARMSTRONG: The question was directed  
15 to Mr. Cobb, if anybody.

16 MS. OLSON: These questions are answered  
17 by the panel, and the Agency has divided up the  
18 responses amongst the witnesses, and so there's not a  
19 particular witness that will answer a particular  
20 question.

21 MR. ARMSTRONG: That's fine.

22 MR. RAO: Is there anyone on the panel  
23 that is qualified to answer that question?

24 MR. BUSCHER: Would you repeat the

1 question?

2 MR. ARMSTRONG: Does the Agency agree  
3 that CCW can be removed from an ash impoundment and  
4 disposed of offsite in a safe manner that's  
5 protective of the environment?

6 MR. BUSCHER: If it goes to a disposal  
7 facility that meets the required environmental  
8 regulations of the State.

9 MS. OLSON: So can I ask a follow-up  
10 question?

11 HEARING OFFICER FOX: Go ahead.

12 MS. OLSON: Do you say this is not your  
13 area of expertise because you don't permit landfills?

14 MR. BUSCHER: That is correct. And also,  
15 I don't get involved with movement of ash. That's  
16 not my expertise as far as potential air issues and  
17 so on.

18 MS. OLSON: So there's multiple media  
19 involved --

20 MR. BUSCHER: Yeah -- yes.

21 MS. OLSON: -- with the movement of ash,  
22 and you're concerned with groundwater contamination.

23 MR. BUSCHER: Yes.

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

1 Has anybody on the panel ever overseen the removal of  
2 ash from a surface impoundment and its disposal  
3 offsite?

4 MR. BUSCHER: That is ongoing at this  
5 point in time at Midwest Gen facilities.

6 MS. FRANZETTI: My question is, have any  
7 of you personally overseen that, been present to  
8 oversee it?

9 MR. BUSCHER: No, ma'am.

10 MS. FRANZETTI: Does anyone on the panel  
11 have a different answer?

12 THE PANEL: No.

13 MR. ARMSTRONG: Moving on to question 3.  
14 We asked about the number of CCW impoundments in  
15 Illinois, and the Agency provided Exhibit N, which  
16 contains the number of impoundments of which the  
17 Agency is aware and the year of -- of which each  
18 impoundment commenced operation was not available for  
19 all impoundments, but the available information on  
20 the year the impoundments commenced operation can be  
21 found in Exhibit O.

22 (The court reporter asked Mr. Armstrong  
23 to repeat the previous question.)

24 MR. ARMSTRONG: I was just going to note

1 that the Agency did provide two exhibits that  
2 contained information about the coal ash impoundments  
3 in response to our question.

4 I'll move on to question 5: On page 3 of  
5 the Statement of Reasons, the Agency states that some  
6 of the surface impoundments are lined with  
7 impermeable materials, while others are not. Could  
8 you please identify which CCW impoundments are lined,  
9 and with what type of lining?

10 And the Agency refers to Exhibit N.  
11 Exhibit N specifies three different types of liner  
12 types: No liner, synthetic, and clay. Is the Agency  
13 able to provide any additional information about the  
14 specific type of synthetic liners at the  
15 impoundments?

16 MR. BUSCHER: I don't have that site  
17 specific information with me.

18 MS. OLSON: I would like to say that the  
19 Agency can go back and get it, but we don't think  
20 it's relevant for these proceedings. These are not  
21 site-specific rulemakings. We're not evaluating how  
22 each and every single one of these ponds are closing  
23 or doing corrective action or any of that. So the  
24 fact that there's listed what type of liner it has, I

1 think is sufficient.

2 MR. ARMSTRONG: Question number 6.

3 On page 3 of the Statement of Reasons,  
4 the Agency states that when the CCW surface  
5 impoundments are not lined with impermeable material,  
6 these contaminants may leach into the groundwater  
7 affecting the potential use of the groundwater.

8 Our question 6(a) was: Could you please  
9 identify all CCW impoundments which from contaminants  
10 currently are, or are suspected by the Agency to be  
11 leaching into groundwater?

12 The Response was that the Agency cannot  
13 in all instances identify specific impoundments that  
14 are suspected of causing groundwater standards  
15 exceedances; however, the Agency believes one or more  
16 impoundments at the following generating stations are  
17 causing exceedances of groundwater standards, and  
18 eight facilities are listed.

19 My follow-up question is, the initial  
20 question was how many facilities -- how many  
21 impoundments from which contaminants are expected to  
22 be leaching into the groundwater, not necessarily  
23 causing groundwater exceedances? Does the answer not  
24 include facilities in which a GMZ has been put in

1 place?

2 MR. DUNAWAY: We took this question to  
3 mean that a generating station had unlined ponds and  
4 that we suspected those were causing contamination of  
5 groundwater, which would be exceedances of  
6 groundwater standards.

7 MR. ARMSTRONG: There are additional  
8 facilities in which there are groundwater  
9 exceedances; is that correct, though?

10 MR. DUNAWAY: They currently have  
11 exceedances, yes.

12 MS. OLSON: Are these -- when you say  
13 facilities, are you talking -- do you know whether or  
14 not these exceedances are caused by coal combustion  
15 waste, or are you speaking generally about having a  
16 groundwater standard exceedance from anything on  
17 their site?

18 MR. ARMSTRONG: Well, for example, the  
19 Midwest Generation facilities -- well, let me pull  
20 back from that question for a second.

21 I'll move on to question (b): Is the  
22 Agency aware of any lined CCW impoundments from which  
23 contaminants are, or are suspected by the Agency to  
24 be leaching into groundwater? And the Agency's

1 Response was no.

2           Could I also ask that question? Is the  
3 Agency aware of any lined impoundments from which  
4 contaminants have or have been suspected by the  
5 Agency to have leached into groundwater?

6           MS. OLSON: What do you mean by have?

7           MR. ARMSTRONG: Any of the impoundments  
8 where -- a lined impoundment that at one time --

9           MS. OLSON: Leached, but no longer does?

10          MR. ARMSTRONG: Has leached at any time  
11 in the past.

12          MR. DUNAWAY: Can you repeat that  
13 question since there was a little discussion?

14          MR. ARMSTRONG: Right.

15                 Is the Agency aware of any CCW  
16 impoundment that while it was lined has been  
17 suspected by the Agency of causing contaminants to  
18 leach into groundwater?

19          MR. DUNAWAY: I'm not aware of any that  
20 while it was lined we suspected leached into  
21 groundwater.

22          MR. ARMSTRONG: I guess the follow-up  
23 question to that would be, then, with respect to the  
24 Midwest Generation sites that the Agency required the

1 impoundments to be relined, did the Agency believe  
2 that those sites -- those impoundments before they  
3 were relined, leach contaminants into the  
4 groundwater?

5 MR. DUNAWAY: Please repeat that.

6 MR. ARMSTRONG: With respect to the  
7 Midwest Generation facilities at which impoundments  
8 were relined, does the Agency suspect that before  
9 those impoundments were relined, they caused  
10 contaminants to leach into groundwater?

11 MR. DUNAWAY: The ponds, Midwest Gen  
12 ponds that we had relined, we, the Agency, did not  
13 think that the liners that were in those were  
14 adequate.

15 MR. ARMSTRONG: And do you believe, then,  
16 that the inadequate liners caused contamination to  
17 leach from the inadequately lined impoundments into  
18 groundwater?

19 MS. FRANZETTI: I'm going to object that  
20 it calls for speculation.

21 MS. OLSON: I object on relevance. It's  
22 just not relevant to these proceedings whether or not  
23 Midwest Gen had a liner at some point that may have  
24 leaked at some point in history. I mean, we're

1 talking about a rule that sets up a process for  
2 corrective action and closure monitoring, not what's  
3 happening at Midwest Gen.

4 HEARING OFFICER FOX: I'm sorry. Do you  
5 have a response to the objection you've heard?

6 MR. ARMSTRONG: Yes. I think it's  
7 important to see how the Agency has dealt with these  
8 impoundments in the past because the proposal is to  
9 continue the Agency's current strategy. So I think  
10 it's important to establish what groundwater  
11 contamination has taken place, the circumstances  
12 under which it has taken place, so that we can assess  
13 the adequacy of the Agency's approach.

14 HEARING OFFICER FOX: And I'm allowing  
15 the question. The very subject of this proposal is  
16 the protection of groundwater from any risks that may  
17 be posed by CCW.

18 Mr. Armstrong, if you would repeat the  
19 question, please, and if the Agency's witness has an  
20 answer here, she can provide it.

21 MR. ARMSTRONG: And my question was that  
22 with respect to the impoundments at the Midwest  
23 Generation facilities that the Agency through a  
24 compliance agreement required to be relined, those

1 impoundments. During the time that they were, what  
2 the Agency considers to be inadequately lined, does  
3 the Agency believe, suspect, that they caused  
4 contaminants to leach into groundwater?

5 MS. FRANZETTI: Same objection.

6 MR. DUNAWAY: The Agency did issue  
7 violation notices on certain facilities so,  
8 therefore, we had suspicion that there may have been  
9 a leak from one or more of their impoundments.

10 MS. OLSON: Can I ask a follow-up  
11 question here?

12 HEARING OFFICER FOX: Please go ahead,  
13 Ms. Olson.

14 MS. OLSON: Lynn, can you tell us what an  
15 adequate liner -- the permeability of an adequate  
16 liner is?

17 MR. DUNAWAY: An adequate liner would be  
18 at least two feet of clay compacted to one times ten  
19 to the minus 7th centimeters per second, or a  
20 synthetic liner with an equivalent amount that  
21 provides an equivalent amount of protection.

22 MS. OLSON: So if a liner has more  
23 permeability than one times ten to the minus 7, the  
24 Agency would consider that to be an inadequate liner?

1 MR. DUNAWAY: Yes.

2 HEARING OFFICER FOX: Anything further,  
3 Ms. Olson?

4 MS. OLSON: No.

5 HEARING OFFICER FOX: Mr. Armstrong,  
6 before you go on to your next question, do you have  
7 any follow-ups on that question?

8 MR. ARMSTRONG: I do have one follow-up  
9 question.

10 With respect to Exhibit N and the  
11 impoundments listed on here, with respect to the  
12 impoundments identified as having a synthetic liner  
13 type, does the -- is the Agency aware of the level of  
14 protection that is afforded by each of these liners,  
15 the conductivity?

16 MR. BUSCHER: Could you repeat the  
17 question?

18 MR. ARMSTRONG: So we just heard  
19 discussion of what an adequate liner is. With  
20 respect to the ash impoundments listed in Exhibit N  
21 that are identified as having a synthetic liner type,  
22 is it the Agency's opinion that each of these liners  
23 is, as we just discussed, adequate?

24 MR. BUSCHER: Generally speaking, with

1 regard to synthetic liners, yes, they are adequate.

2 MR. ARMSTRONG: Generally speaking. So  
3 for each of these liners, the Agency believes they're  
4 adequate?

5 MR. BUSCHER: Some of these liners were  
6 put in prior to my being involved with them, so I  
7 can't speak to each one of these, but generally that  
8 is my expectation.

9 MR. COBB: What Bill is saying is, if the  
10 groundwater section comprises hydro geologists and  
11 geologic engineers had input into the process, some  
12 of that occurred prior to us having input. Where we  
13 had the input, we require the same standards that  
14 we're proposing here.

15 MR. ARMSTRONG: And at what time point  
16 was that input first delivered?

17 MR. COBB: It's project by project. The  
18 applicability of the Board's Part 620 standards, they  
19 became effective in 1991, and generally on or around  
20 that time, we started, you know, providing input. So  
21 that's approximate.

22 MR. ARMSTRONG: So just one last question  
23 about the list, then. You can't just look at this  
24 list, then, and say which of these liners was

1 installed after 1991 or which does contain the  
2 requirements that you believe are necessary.

3 MS. OLSON: I think the list speaks for  
4 itself. There's no data on there that contains when  
5 the liner was installed or the permeability of the  
6 liner. So, you know, I think the list --

7 HEARING OFFICER FOX: Is that a response  
8 that you need to be sworn in for?

9 MS. OLSON: No. I'm saying I don't  
10 believe the Agency needs to answer because I think  
11 the list speaks for itself.

12 MS. DEXTER: Is the answer no?

13 MS. OLSON: There is no --

14 HEARING OFFICER FOX: Could we have  
15 Mr. Armstrong repeat the question?

16 MR. ARMSTRONG: So the question was  
17 simply, so someone can't just take a look at this  
18 list and say which of these synthetic liners are  
19 adequate.

20 HEARING OFFICER FOX: Mr. Buscher, do you  
21 have an answer to that question?

22 MR. BUSCHER: I can't at this time, no.

23 MR. ARMSTRONG: I'll move on to question  
24 6(d). Is the Agency aware of any CCW impoundments

1 that have caused contamination of groundwater that is  
2 connected hydrologically to surface waters?

3 MS. OLSON: I'm going to object as  
4 irrelevant. This rulemaking is not about surface  
5 water.

6 MR. ARMSTRONG: I would argue that it is  
7 relevant because what we're talking about is the  
8 closure and corrective action necessary at existing  
9 impoundments, including the treatment of groundwater.  
10 Groundwater that leaches through a nonpoint source is  
11 not necessarily going to be addressed by a NPDES  
12 permit; however, corrective action should address  
13 those sort of groundwater issues.

14 HEARING OFFICER FOX: I'm going to allow  
15 the question. The Agency's written answer  
16 contemplates that groundwater can be a conduit to  
17 surface water.

18 Mr. Armstrong, if you need to repeat the  
19 question, please do so, and have the Agency's  
20 witnesses answer it, if they can.

21 MR. ARMSTRONG: I think back to my  
22 question first, but in reading the pre-filed question  
23 the Response was: Any groundwater that has been  
24 contaminated by a CCW impoundment is fairly near the

1 land's surface. Therefore, it can be assumed that a  
2 diffuse flow of groundwater has crossed the interface  
3 from groundwater to surface water.

4 Has the Agency attempted to quantify the  
5 amount of contaminated groundwater that has, quote,  
6 crossed the interface from groundwater to surface  
7 water at any given facility?

8 MR. DUNAWAY: We have had that -- that  
9 has been done at Hutsonville with regard to Ash Pond  
10 D, the 840 site-specific rule, and that information  
11 was provided for the closure at Venice.

12 MR. ARMSTRONG: And that would be a  
13 complete list of sites for which the Agency has  
14 considered that has quantified the amount of  
15 groundwater that has crossed the interface -- I'm  
16 sorry -- the amount of groundwater that has crossed  
17 the interface from groundwater to surface water?

18 MR. DUNAWAY: Those are the only  
19 facilities that I'm aware of where that -- where that  
20 has been done.

21 MS. OLSON: Can I ask a follow-up  
22 question?

23 HEARING OFFICER FOX: Please go ahead,  
24 Ms. Olson.

1 MS. OLSON: Has it not been done at other  
2 facilities because it hasn't been necessary?

3 MR. DUNAWAY: We've not undertaken the  
4 assessment of the quantity of groundwater that has  
5 crossed into surface water.

6 MS. OLSON: And why not?

7 MR. DUNAWAY: Because our focus is  
8 remediation of groundwater, and if we remediate the  
9 groundwater, any groundwater that crosses to surface  
10 water will be improved if we improve the groundwater.

11 MS. OLSON: That's all I have.

12 HEARING OFFICER FOX: Thank you  
13 Ms. Olson.

14 Mr. Armstrong, I think we're back to you  
15 at this point.

16 MR. ARMSTRONG: I'll move on to pre-filed  
17 question number 9, and our question was: Could you  
18 please identify all CCW impoundments known by the  
19 Agency to have been constructed, and we had three  
20 Subparts -- I'm sorry -- five Subparts.

21 First was over a mine void; the second  
22 was over a groundwater recharge area; the third was  
23 over a wetland; the fourth was over a shallow  
24 aquifer; and the fifth was over a site with manmade

1 aquifer-like conditions.

2 And the Agency's response to each of  
3 these questions was that the Agency does not  
4 currently track this information relative to CCW  
5 surface impoundments and cannot generate a complete  
6 list before the first hearing.

7 My first follow-up question would be  
8 whether it is accurate to say that these rules, then,  
9 were not prepared with any consideration for the  
10 structural integrity of the impoundments.

11 MR. COBB: The Department of Natural  
12 Resources' Office of Water Resources considers the  
13 structural integrity of these types of impoundments.

14 MR. ARMSTRONG: But the Agency's approach  
15 to these impoundments in the rulemaking was not  
16 informed by a study of any structural integrity  
17 issues with the impoundments in Illinois.

18 MR. COBB: Essentially, when we started  
19 the implementation of the ash impoundment strategy,  
20 we shared information back and forth between us and  
21 the Department of Natural Resources to determine if  
22 the dam structures at the sites were under a DNR  
23 permit.

24 So at the very beginning of the process,

1 yes, we did consider that, and the capping and  
2 closure, I think we need to look at the specific  
3 rule, but I believe there's a structural requirement  
4 related to closure, just like there would be for a  
5 landfill, for example.

6 MS. OLSON: Can I ask a follow-up  
7 question?

8 HEARING OFFICER FOX: Has Mr. Cobb  
9 finished his response?

10 MR. COBB: Yes.

11 MS. OLSON: So would the Agency consider  
12 whether or not a full combustion waste surface  
13 impoundment is over a mine void when evaluating the  
14 corrective action plan?

15 MR. COBB: The problem with doing that --  
16 I mean, the quick answer is no, simply because  
17 there's not an existing data set out there to know  
18 where all the mine voids are.

19 A simple example, in Springfield, there's  
20 a subdivision built on the west side. They built the  
21 whole subdivision. All of a sudden, the whole  
22 subdivision started sinking in. There's an  
23 electronic coverage of underground mines that exist  
24 in Illinois, but it's not complete. So it's really

1 hard to make an accurate assessment of that nature  
2 when the data set you have isn't complete to begin  
3 with. So the answer is no.

4 HEARING OFFICER FOX: Ms. Franzetti, do  
5 you have a follow-up? Please go ahead.

6 MS. FRANZETTI: Okay. With respect to  
7 question 9(b) about whether any CCW impoundments have  
8 been constructed over a groundwater recharge area, do  
9 any of you recall whether in the hydro geological  
10 assessments that you've required owners or operators  
11 of CCW units to do, whether it would have been  
12 revealed if the -- in that assessment, if the  
13 impoundment was over a groundwater recharge area?

14 HEARING OFFICER FOX: Mr. Cobb, are you  
15 the right person to answer that?

16 MS. FRANZETTI: If you recall.

17 MR. COBB: The panel can do it, but I can  
18 answer it.

19 Since we know the hydro geology, we know  
20 if it's an unconfined aquifer and it's kind of  
21 obvious that it's recharging groundwater for all the  
22 facilities that we listed that we sent VNs to because  
23 of contaminants, and these were in Attachments 1  
24 through 14 in my pre-filed testimony.

1           So it's pretty obvious that that was  
2 recharging groundwater at those facilities. So the  
3 answer is yes under those assessments.

4           HEARING OFFICER FOX: Can you clarify the  
5 use of the initials VN for us, Mr. Cobb?

6           MR. COBB: Oh. Violation Notice.

7           HEARING OFFICER FOX: Thank you.

8           MR. COBB: Sorry.

9           MS. FRANZETTI: And Mr. Cobb, do you  
10 think your answer would also be in the affirmative  
11 with respect to those assessments revealing whether  
12 the CCW unit was over a wetland?

13           MR. COBB: Once again, the types of maps  
14 that we would get would probably be showing surface  
15 water types of features; for example, a USGS  
16 topographic map in most cases would be available.

17           MS. FRANZETTI: And also in most cases  
18 were borings available?

19           MR. COBB: Yes.

20           MS. FRANZETTI: Okay. With respect to  
21 Subpart D whether the CCW impoundment is over a  
22 shallow aquifer, wouldn't the hydro geological  
23 assessments that you required station owner or  
24 operators to do have identified whether a shallow

1 aquifer existed?

2 MR. COBB: Yes.

3 MS. FRANZETTI: Is the mere fact that a  
4 shallow aquifer exists any -- indicative of the  
5 structural integrity of a surface impoundment in the  
6 way that these questions are inclined?

7 MR. COBB: No.

8 MS. FRANZETTI: That's all I have.

9 HEARING OFFICER FOX: Thank you.

10 Ms. Franzetti.

11 I think back to you, Mr. Armstrong, if  
12 you have additional follow-ups with regard to  
13 question number 9.

14 MR. ARMSTRONG: In response to these  
15 questions, the answer was: The Agency does not  
16 currently track this information relative to CCW  
17 surface impoundments and cannot generate a complete  
18 list for the first hearing in the rulemaking.

19 Will the Agency generate a complete list  
20 at any point in its rulemaking?

21 MR. COBB: Yes. It's going to take a bit  
22 of time to do that analysis, and it's going to be  
23 other than the site-specific information that we've  
24 gotten from the assessments. You know, if we're

1 basing things on regional GIS coverages and that sort  
2 of thing, it's going to be clearly stated that there  
3 are some uncertainties there, but the assessments  
4 themselves are -- you know, it's pretty clear that  
5 where on recharge areas, they're shallow aquifers.  
6 Groundwater is already contaminated in Attachments --  
7 mentioned in Attachments 2 through 14 of my pre-filed  
8 testimony. It's clear there weren't liners in those  
9 facilities.

10 MS. OLSON: May I ask a follow-up  
11 question?

12 HEARING OFFICER FOX: Please, go ahead.

13 MS. OLSON: Mr. Cobb, do you know what a  
14 manmade aquifer-like condition is?

15 MR. COBB: I don't know what the  
16 definition of that is. I've never seen that defined  
17 in the Act or in Board Regulations, so I don't know  
18 how to answer that question.

19 MS. OLSON: Therefore, will the Agency be  
20 able to prepare a list of all coal combustion surface  
21 waste surface impoundments known by the Agency to  
22 have been constructed over a site with a manmade  
23 aquifer-like condition?

24 MR. COBB: No. Generally because we're

1 following the definitions that are either under the  
2 Act or under Board Regulations. That's how we do  
3 business.

4 MS. OLSON: So in any response that we  
5 compile to question 9, will it contain a response for  
6 subquestion (e)?

7 MR. COBB: The groundwater quality  
8 provisions and standards -- the quick answer is no  
9 because that's not under the Board -- under the  
10 classification system adopted by the Board for Part  
11 620 for which groundwater applies to.

12 HEARING OFFICER FOX: Anything further,  
13 Ms. Olson?

14 MS. OLSON: No.

15 HEARING OFFICER FOX: Thanks very much.

16 Mr. Armstrong, anything further on  
17 question number 9?

18 MR. ARMSTRONG: I have been advised that  
19 there may, in fact, be a definition of manmade  
20 aquifer-like conditions in the Act; and, if so, we  
21 will submit that.

22 MS. OLSON: Thank you.

23 MR. ARMSTRONG: Pre-filed question number  
24 10. What is the basis for the following statement on

1 page 10 of the Technical Support Document? The two  
2 facilities that have the potential to impact offsite  
3 drinking water are Havana East Pond, which is lined  
4 and currently in compliance, and Edwards, which is  
5 unlined, but currently in compliance.

6 And the Response is that this statement  
7 means that the groundwater flow direction is from  
8 under these units to offsite, and offsite groundwater  
9 is Class I Potable Resource Groundwater.

10 My follow-up question is, does this mean  
11 that the offsite groundwater that's directly adjacent  
12 to the site is Class I Potable Resource Groundwater?  
13 Is that the meaning of your answer?

14 MR. COBB: Which facility are you  
15 referring to?

16 MR. ARMSTRONG: In question 10, you  
17 stated that the two facilities that have potential to  
18 impact offsite drinking water are the Havana East  
19 Pond and Edwards, and the answer was that they have  
20 the potential to impact offsite groundwater that is  
21 Class I Potable Resource Groundwater.

22 My question is, does your answer refer to  
23 the fact that the immediately adjacent offsite  
24 groundwater is Class I Potable Resource Groundwater,

1 and that is why these have been identified?

2 MR. COBB: Yes.

3 MR. ARMSTRONG: Okay. So --

4 MR. COBB: And on site as well.

5 MR. ARMSTRONG: So I just want to clarify  
6 that the reason that these two were identified is  
7 because the immediately adjacent groundwater is Class  
8 I and, therefore, if there is -- for example, a  
9 facility that has immediately adjacent groundwater  
10 that isn't Class I, but Class I groundwater might be  
11 further offsite, that would not be taken into account  
12 in this description?

13 MR. COBB: So you're saying it's Class II  
14 offsite, possibly? Is that what you're saying?

15 MR. ARMSTRONG: Right, just immediately  
16 adjacent groundwater.

17 MS. OLSON: Immediately adjacent to what?

18 MR. ARMSTRONG: To the facility.

19 MS. OLSON: To the site boundary or to  
20 the unit?

21 MR. COBB: The site boundary or the unit  
22 that's subject to these regulations?

23 MR. ARMSTRONG: Well, again, the answer  
24 states that this statement means that the groundwater

1 flow direction is from under these units to offsite,  
2 and offsite groundwater is Class I Potable Resource  
3 Groundwater.

4 MR. COBB: You said units that time  
5 instead of site or facilities.

6 MR. ARMSTRONG: Well, your answer uses  
7 both units and site.

8 MS. OLSON: Well, I think the answer is  
9 the property boundary, but I just want to be sure  
10 that we're talking about the same thing. So is it  
11 the property boundary that you're referring to?

12 MR. ARMSTRONG: Yes.

13 MS. OLSON: The groundwater on the other  
14 side of the property boundary?

15 MR. ARMSTRONG: Right. So your answer is  
16 based on the fact that the reason that these two  
17 sites were identified is the groundwater immediately  
18 adjacent to the property boundary was Class I  
19 groundwater, is that correct?

20 MR. COBB: Correct. I think I answered  
21 that one.

22 MR. ARMSTRONG: Right. So this doesn't  
23 exclude the possibility of sites where the  
24 groundwater immediately adjacent to the property

1 boundary is not Class I groundwater, but there could  
2 be Class I groundwater nearby.

3 MR. COBB: That wasn't really what I was  
4 intending by the statement. I was talking about  
5 conditions where we have the potential, so you've got  
6 Class I geologic materials.

7 So it's not -- they aren't tight geologic  
8 materials. They have a permeability and contaminants  
9 can move through them. However, the downgradient  
10 wells don't have contaminants in them at a  
11 concentration that even threatens offsite  
12 groundwater. So my intent wasn't to say -- you know,  
13 to try to come up with a scenario where we were  
14 including in this a tight geologic material.

15 If it's Class II, they're geologic  
16 materials that have a hydraulic conductivity of less  
17 than 10 to the minus 4 centimeters per second, so  
18 groundwater doesn't flow within those. So if you did  
19 have that, that would limit flow offsite, but that  
20 wasn't really what I was intending by the statement.

21 You could also have Class III, which is  
22 certainly highly permeable and, once again, I was  
23 talking about these two specific situations, and I  
24 know it's Class I onsite and offsite, and the flow is

1 moving from onsite to offsite, but the downgradient  
2 wells relative to the units don't have concentrations  
3 that would even threaten a nondegradation standard  
4 offsite. That's what I'm saying. That's a good  
5 thing.

6 MR. ARMSTRONG: Moving on to question  
7 number 12.

8 On pages 2 to 3 of your pre-filed  
9 testimony you state: Corrective actions were  
10 implemented at surface impoundments where groundwater  
11 contamination resulted from CCW prior to the TVA  
12 event under consent orders that included approved  
13 groundwater management zones at Havana, Wood River,  
14 and Hennepin. The corrective action conducted under  
15 the consent order GMZ at Dynegy's Havana Station has  
16 restored contaminated groundwater to meet the  
17 numerical groundwater standards. Have numerical  
18 groundwater standards been met at Wood River and  
19 Hennepin?

20 The answer is that the numerical  
21 standards have not yet been achieved at all wells at  
22 either Wood River or Hennepin. However, both sites  
23 are in compliance with the requirements of their  
24 GMZs.

1 My question is: First, what was the date  
2 in which these GMZs were put in place at Wood River  
3 and Hennepin?

4 MR. DUNAWAY: I don't recall the specific  
5 dates, but I could find it.

6 MR. ARMSTRONG: Well, I do have a list of  
7 GMZs that we received from the Agency in the form of  
8 a response. Oh, I'm sorry. It appears to be in  
9 Exhibit 1 -- Exhibit N, and the GMZ was established  
10 for the Hennepin Station in 1996, for example. So  
11 the GMZ has been in place now for 18 years.

12 My question is, how long does -- how long  
13 does the Agency anticipate it will take Hennepin to  
14 reach compliance with the numerical water quality  
15 standards?

16 MR. COBB: Well, before we get to that  
17 question, I don't know if modeling's been done to  
18 predict that, but the reason the GMZ provisions were  
19 in place, this groundwater doesn't clean up  
20 overnight. It can take decades to clean up  
21 groundwater. Groundwater moves in centimeters per  
22 second, not feet per day like surface water, so there  
23 was a -- there was a meaningful --

24 When that was proposed to the Board and

1 the Board adopted it, there was an understanding that  
2 groundwater can take a significant amount of time to  
3 clean up. We've had sites that had been finally  
4 cleaned up, but it took 20 years.

5 Now I'll turn it over to the panel to see  
6 if there is any specific knowledge.

7 MR. DUNAWAY: At both Wood River and  
8 Hennepin, there was a predictive modeling done for  
9 the amount of time that each well would take to reach  
10 the groundwater quality standard. Some of those  
11 wells have reached that level; some of them have not.  
12 I can't tell you sitting right here now which ones  
13 have and which ones have not or the exact number at  
14 either station.

15 MR. COBB: The issue is that before we  
16 approve the GMZ we require predictive modeling, but  
17 it's modeling, and that's why we always require  
18 monitoring to go along with that to see if a  
19 corrective action plan needs to be amended, and in  
20 this case, if some of the wells are cleaning up --  
21 like I said, groundwater takes a significant amount  
22 of time to clean up.

23 Now, if there were an offsite threat to  
24 groundwater -- in other words, there were

1 contaminants threatening to go offsite -- then we  
2 wouldn't just be sitting there watching the  
3 groundwater management zone, we would -- the  
4 corrective action would have to deal with that as  
5 well. So I just want to make sure that's clear that  
6 you know how we do business on that.

7 MR. ARMSTRONG: Is the Agency able to  
8 tell us at this point at what point the model  
9 predicts there will be compliance with the numerical  
10 standards?

11 MR. DUNAWAY: I could look at the most  
12 recent annual report submitted under those GMZs and  
13 look at the graphs for the wells.

14 MR. ARMSTRONG: So one more question  
15 about on the Hennepin station on Exhibit N. There  
16 are seven impoundments listed in total. Ponds 1  
17 through 4 are identified as having no liner. Is the  
18 Agency aware of whether those ponds have been closed?

19 MR. DUNAWAY: I'm sorry. Which station?

20 MR. ARMSTRONG: The Hennepin station, on  
21 page 2 of Exhibit N.

22 MR. DUNAWAY: Okay. I have Exhibit N in  
23 front of me. Now, what is your question?

24 MR. ARMSTRONG: Of those Ponds 1 through

1 4 that are stated as having no liner, is the Agency  
2 aware of whether those impoundments have been closed?

3 MR. DUNAWAY: They are no longer  
4 receiving ash, which was the stipulation of the GMZ.

5 MR. ARMSTRONG: But to your knowledge,  
6 they don't have a cap at this point?

7 MR. DUNAWAY: I cannot answer the  
8 question specifically for all of them, but for Pond  
9 2, it has -- it's having a landfill constructed on  
10 top of it, which will serve as a capping mechanism.

11 MR. ARMSTRONG: I'll move on to question  
12 14. Under the ash impoundment strategy referenced on  
13 page 3 of your pre-filed testimony, has the Agency  
14 assessed the potential for groundwater flow from  
15 impoundments to surface waters; and the answer is  
16 yes.

17 Could you give an example of a case in  
18 which you assessed the potential for groundwater flow  
19 from impoundments to surface waters?

20 MR. COBB: Well, when you're determining  
21 or evaluating groundwater flow, you develop what's  
22 called a potentiometric surface, which is basically a  
23 map of the water table and groundwater flows from  
24 upgradient to downgradient perpendicular to those

1 contours, and typically those maps then are overlain  
2 on either digital area photographs or USGS  
3 topographic maps, and surface water features are  
4 shown on those maps, so -- and then a geologic  
5 cross-section may also show surface water features.

6 So yes, we can see where groundwater is  
7 flowing towards surface water and surface water  
8 features are shown on potentiometric surface maps and  
9 groundwater flow direction maps.

10 MR. ARMSTRONG: I'll move on to question  
11 18. On page 9 of your pre-filed testimony, you  
12 discussed several impacts of contamination of  
13 groundwater by total dissolved solids, boron, and  
14 sulfate, and my question was: Did you review the  
15 evidence of human health risks from TDS, boron,  
16 sulfate or manganese. If so, please describe those  
17 impacts.

18 You responded that those factors were  
19 considered in the Class I Potable Resource  
20 Groundwater standards adopted by the Board for these  
21 constituents pursuant to Section 8 of the Illinois  
22 Groundwater Protection Act and Section 27 of the Act.  
23 The records in R89-14 and R89-14(B) include this  
24 information.

1           And I do have to submit as exhibits  
2 Drinking Water Health Advisories from the United  
3 States Environmental Protection Agency that post date  
4 the 1989 proceedings that include additional studies  
5 of health impacts from those constituents.

6           MR. COBB:    The 1989?

7           MR. ARMSTRONG:  I'm sorry?

8           MR. COBB:    1989, you say?

9           MR. ARMSTRONG:  They post date the  
10 Rulemaking 89-14.

11           MR. COBB:    Well, R89-14(B) was adopted in  
12 1981.

13           MR. ARMSTRONG:  Okay.

14           MR. COBB:    And I actually did this  
15 research myself in proposing the standards, and I'm  
16 familiar with drinking water advisories because I am  
17 the Deputy Division Manager of the Division of Public  
18 Water Supplies, so if we have new USEPA MCLs, or  
19 whatever, we've had multiple times that we've updated  
20 and amended standards since 1991, and I've been  
21 involved in every one of those situations.

22           HEARING OFFICER FOX:  By MCL, you mean --

23           MR. COBB:    Maximum contaminant level.

24           HEARING OFFICER FOX:  Thank you for

1 clarifying. Sorry to interrupt.

2 MR. ARMSTRONG: Well, we do have these --  
3 the most recent drinking water advisories. Are you  
4 aware whether these have been concluded in the  
5 Pollution Control Board dockets?

6 MS. OLSON: Do you mean included?

7 MR. ARMSTRONG: Included.

8 MR. COBB: Boy, I would certainly think  
9 so, yes.

10 MR. ARMSTRONG: Well, just for the sake  
11 of the record, I do have --

12 MR. COBB: I don't know for sure. Can  
13 you provide us your copies and we'll cross-reference  
14 those with the standards. These are health  
15 advisories, can I ask?

16 HEARING OFFICER FOX: Mr. Armstrong had  
17 some questions. Why don't we let him distribute that  
18 and see if there are specific questions that ensue  
19 from that.

20 MR. ARMSTRONG: I have three documents  
21 that are being distributed; The Drinking Water Health  
22 Advisory for Manganese from January 2004; the  
23 Drinking Water Advisory: Consumer Acceptability  
24 Advice and Health Effects Analysis on Sulfate from

1 February 2003; and then Drinking Water Health  
2 Advisory for Boron, from May 2008.

3 HEARING OFFICER FOX: I'm sorry. If we  
4 could wait just a moment, we're still under way with  
5 the distribution.

6 MR. ARMSTRONG: Yes. I move to submit  
7 these exhibits as Exhibits 8, 9 and 10.

8 HEARING OFFICER FOX: Mr. Armstrong, we  
9 have admitted Exhibit number 8. It would be 9, 10  
10 and 11.

11 MR. ARMSTRONG: Yes.

12 HEARING OFFICER FOX: I want to be  
13 absolutely clear on which is which. Have you  
14 numbered them already? Can we do it in alphabetical  
15 order?

16 MR. ARMSTRONG: That sounds reasonable.

17 HEARING OFFICER FOX: Why don't we call  
18 the document entitled Drinking Water Health Advisory  
19 for Boron as Exhibit Number 9, merely labeling it at  
20 this point; the Drinking Water Health Advisory for  
21 Manganese as Exhibit Number 10; and the Drinking  
22 Water Advisory: Consumer Acceptability Advice and  
23 Health Effects Analysis on Sulfate as Exhibit Number  
24 11, naturally. But I interrupted you, Mr. Armstrong.

1 We can go back to you to complete what you were  
2 preparing to say.

3 MR. ARMSTRONG: And I move to have these  
4 exhibits entered as Exhibits 9, 10 and 11.

5 HEARING OFFICER FOX: The environmental  
6 groups have circulated copies of these. I can see  
7 many of the participants. Having heard  
8 Mr. Armstrong's motion to admit these three documents  
9 as Exhibits 9, 10 and 11, is there any objection?

10 Neither seeing nor hearing any objection,  
11 Mr. Armstrong, they will be marked and admitted into  
12 the record as those exhibit numbers.

13 (Exhibit Numbers 9, 10 and 11 were  
14 marked for identification and admitted  
15 into evidence.)

16 Please go ahead.

17 MR. ARMSTRONG: Our question was, did you  
18 review the evidence of human health risks from TDS,  
19 boron, sulfate, or manganese? If so, please describe  
20 those impacts.

21 In your pre-filed testimony, you stated,  
22 for example, that boron contamination may prevent  
23 watering of sensitive plants. Are you aware of any  
24 other human health impacts on top of that?

1 MR. COBB: No, I'm not. USEPA has not  
2 established a drinking water standard for boron.  
3 Drinking water standards take into account health  
4 advisories, such available treatment technology and  
5 analytical treatment techniques. I have not reviewed  
6 these documents, but that is the general framework  
7 for how drinking water MCLs are established by the  
8 USEPA. They are promulgate health advisories as  
9 drinking water standards, and we still have them for  
10 boron.

11 MR. ARMSTRONG: Are you aware of any  
12 negative human health impacts from manganese?

13 MR. COBB: USEPA has not established a  
14 primary drinking water standard for manganese.  
15 They've established an aesthetic secondary standard,  
16 so no, I'm not, but I'm familiar with the USEPA  
17 drinking water standards process.

18 MR. ARMSTRONG: And are you aware of  
19 whether sulfate has any negative human health impacts  
20 beyond your statement in your pre-filed testimony  
21 that participants in the study of health effects from  
22 exposure to high levels of sulfate in drinking water  
23 studies complained that they cannot drink the water  
24 because it smelled and tasted so bad?

1 MR. COBB: USEPA has not established a  
2 primary drinking water standard for sulfate.

3 MR. ARMSTRONG: So you're not aware of  
4 any studies that show any health impacts from  
5 sulphate?

6 MR. COBB: No. If there was an MCL,  
7 that's what we apply to drinking water to protect  
8 public health and -- to protect public health that  
9 consume the community water supplies across the state  
10 and across the nation, actually. Those are found  
11 in -- by the way, in Illinois Pollution Control Board  
12 Regulations 35 Ill. Adm. Code Part 611.

13 MR. ARMSTRONG: I'll move on to question  
14 20. With respect to groundwater management zones --

15 HEARING OFFICER FOX: Mr. Armstrong, I'd  
16 like to interrupt, if we could, and we certainly can  
17 return to your questions.

18 We have reached the time of 5 o'clock,  
19 and we have been under way for quite a while. We  
20 certainly have made some progress on your questions,  
21 your pre-filed questions, but those that remain and  
22 the Board's questions, approximately 60, would  
23 require us to go to a very late night to wrap them  
24 up.

1           What I would like to propose is that we  
2 break for the day today. This hearing was scheduled  
3 to continue, if necessary, tomorrow morning in this  
4 very same place at 9:00 a.m., since we are all here  
5 in town, and I'd like to break there and allow us to  
6 resume at 9 o'clock tomorrow, at which point we can  
7 take up question number 20, continue through all of  
8 the remaining questions.

9           I believe you have exactly 50 questions  
10 that you have submitted. We can continue with the  
11 follow-ups, then turn to the questions that the Board  
12 has filed as well and wrap up as soon as possible  
13 tomorrow.

14           I don't see any objections to that as I  
15 watch people closing their notebooks. We will plan  
16 to see you back here at 9 o'clock tomorrow morning.

17           Thank you for your patience for a long  
18 day.

19                           (Hearing concluded at 5:02 p.m.)

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22  
23  
24

1 STATE OF ILLINOIS )  
2 ) SS  
3 COUNTY OF MACON )

4 I, LISA K. HAHN, CSR, RMR, do hereby state  
5 that I am a court reporter doing business in the City  
6 of Decatur, County of Macon, and State of Illinois;  
7 that I reported by means of machine shorthand the  
8 proceedings held in the foregoing cause, and that the  
9 foregoing is a true and correct transcript of my  
10 shorthand notes so taken as aforesaid.

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Lisa K. Hahn, CSR, RMR  
Notary Public, Macon County, Illinois  
CSR #84-2149

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