

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
)
Midwest Generation LLC)
(Powerton Station))
)
V.) No. 21-109
)
Illinois Environmental)
Protection Agency)

REPORT OF THE PROCEEDINGS held in the above entitled cause before Hearing Officer Carol Webb, called by the Illinois Pollution Control Board, taken by Steven Brickey, CSR, RMR, CRR, for the State of Illinois, 111 South Capitol Street, Pekin, Illinois, on the 21st day of July, 2021, commencing at the hour of 9:23 a.m.

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A P P E A R A N C E S

MS. CAROL WEBB, Hearing Officer
MS. CYNTHIA SANTOS, Board Member
MR. ANAND RAO, Technical Unit
MR. TIMOTHY FOX, Senior Attorney

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BY: MS. CHRISTINE M. ZEIVEL
MR. CLAYTON ANKNEY
1021 North Grand Avenue East
PO Box 19276
Springfield, Illinois 62794
(217) 782-5544,
christine.zeivel@illinois.gov
clayton.ankney@illinois.gov

Appeared on behalf of the Illinois
Environmental Protection Agency;

NIJMAN & FRANZETTI, LLP
BY: MS. KRISTEN GALE
MS. MOLLY SNITTJER
10 South LaSalle Street
Suite 3600
Chicago, Illinois 60603
(312) 262-5524,
kg@nijmanfranzetti.com
ms@nijmanfranzetti.com

Appeared on behalf of Midwest
Generation;

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1 HEARING OFFICER WEBB: Good morning.
2 My name is Carol Webb and this is the hearing for
3 PCB 21-109. Midwest Generation's Powerton Station
4 seeking a variance from 35 Ill. Adm. Code Part
5 845.

6 Joining me today is Board member
7 Cynthia Santos, the Board's chief scientist Anand
8 Rao and senior attorney Tim Fox. It is July 21st
9 and we are beginning at 9:30 a.m. There are no
10 members of the public here to offer comment.
11 Written public comment may be filed with the
12 Board's clerk by July 28, 2021.

13 The Pollution Control Board
14 members will make the final decision in this case.
15 My purpose is to conduct the hearing in a neutral
16 and orderly manner so that we have a clear record
17 of the proceedings. This hearing was noticed
18 pursuant to the act and the Board's rules and will
19 be conducted pursuant to the Board's procedural
20 rules at 35 Ill. Adm. Code 101 Subpart F and 104
21 Subpart B.

22 At this time, I will ask the
23 parties to please make their appearances on the
24 record.

1 MS. GALE: Kristen Gale and with me
2 is Molly Snittjer on behalf of Midwest Generation,
3 LLC.

4 HEARING OFFICER WEBB: Thank you.

5 MS. ZEIVEL: Christine Zeivel for
6 Illinois EPA, also co-counsel Clayton Ankney.

7 HEARING OFFICER WEBB: Okay. Are
8 there any preliminary matters to discuss on the
9 record?

10 MS. GALE: Nothing for me.

11 HEARING OFFICER WEBB: Would the
12 petitioner like to make an opening statement?

13 MS. GALE: I would. Thank you very
14 much. Good morning, Madam Hearing Officer,
15 members of the Board, Mr. Rao. I am, as I said,
16 Kristen Gale and with me is Molly Snittjer and we
17 are here on behalf of Midwest Generation on their
18 petition for a brief extension of time on certain
19 deadlines in the recently adopted Illinois coal
20 combustion residual rule, also known as the CCR
21 rule.

22 The extension is only for one of
23 the surface impoundments at the Powerton station
24 in Pekin, Illinois, the metal cleaning basin.

1 Specifically, Midwest Generation is requesting an
2 extension of four deadlines; an extension of the
3 deadline to complete the groundwater sampling and
4 analysis under Section 845.650(b)(1)(a), an
5 extension of the deadline to submit the operating
6 permit application for the metal cleaning basin
7 under Section 845.230(d)(1), an extension of the
8 deadline to submit the category designation of the
9 metal cleaning basin's closure prioritization,
10 excuse me, under Section 845.700(g) and an
11 extension of the deadline to submit the
12 construction permit application under Section
13 845.700(h)(2).

14 We are here because the metal
15 cleaning basin is not a federal CCR surface
16 impoundment. It is not part of the ash sluice
17 system. It does not receive ash mixed with
18 liquid. Instead, the basin is either -- used to
19 either hold dry ash or cleaning liquids, but not
20 at the same time.

21 Generally, it holds nothing and
22 sits empty. Because the metal cleaning basin is
23 not a federal CCR surface impoundment, it does not
24 have all the groundwater data, structural

1 information and background information that the
2 other CCR surface impoundments at Powerton have by
3 being a part of the federal program. It is
4 important to note that Midwest Generation is not
5 requesting a variance from any of the work or
6 corrective actions required by the CCR rule.

7 Midwest Generation is working
8 diligently to conduct all the work required under
9 that rule. Instead, Midwest Generation is only
10 asking for a brief extension of the immediate
11 deadlines to accurately collect all the requisite
12 information required for the extensive operating
13 permit applications and the even more extensive
14 construction permit applications. And by brief, I
15 mean less than a year for each deadline.

16 The Agency does not object to
17 Midwest Generation's request to extend the
18 deadlines to collect and analyze the eight
19 independent samples nor does it object to
20 submitting the operating permit application and it
21 does not object to submitting the category
22 designation of the metal cleaning basin's closure
23 prioritization.

24 The Agency did object to Midwest

1 Generation's request to extend the deadline to
2 complete the initial emergency action plan and the
3 fugitive dust plan. As Midwest Generation stated
4 in its written response to the Agency's objection,
5 it is withdrawing that request to extend those
6 plans.

7 The Agency also objects to the
8 extension to submit the construction permit
9 application if it's determined that the metal
10 cleaning basin is a Category 5 closure
11 prioritization. Midwest Generation maintains that
12 the construction permit application deadline truly
13 within actually two months of completion of the
14 operating permit application is an unreasonable
15 hardship and that there is little harm to the
16 environment or to the public to grant Midwest
17 Generation a brief extension to submit that
18 application and we will address those issues
19 today.

20 There are also certain other
21 misstatements of fact that were contained in the
22 Agency's recommendation which Midwest Generation
23 will address in this hearing today. While we do
24 not believe that those misstatements are material

1 to the Board's decision to grant the requested
2 variance, we believe it's important to correct the
3 record.

4 Attached to Midwest Generation's
5 petition were three affidavits by Sharene Shealey,
6 Midwest Generation's environmental director; Dale
7 Green, the Powerton station manager; and Richard
8 Gnat of KPRG & Associates and a hydrologist.

9 Mr. Green and Mr. Gnat will be
10 providing additional testimony in support of our
11 petition and all three are available for questions
12 from the Agency and the Board today. Thank you.

13 HEARING OFFICER WEBB: Thank you.
14 Would the Agency like to make an opening
15 statement?

16 MS. ZEIVEL: Sure. Just briefly.
17 The Agency timely filed its recommendation
18 fulfilling the regulatory requirements. We're
19 here today relying on the written recommendation
20 as provided. Our recommendation had two
21 affidavits attached, one by Mr. Lynn Dunaway who
22 is sitting here to my left, a geologist for the
23 Illinois EPA, and then Mr. Darin LeCrone who is
24 also here from the permit section, both within the

1 Bureau of Water.

2 We plan to rely on the
3 affidavits as provided prior to hearing. Both of
4 our witnesses are here and available to answer the
5 pre-filed questions that the Board had and would
6 also be available for cross-examination.

7 Otherwise, we do rely on the
8 recommendation that requests denial of the
9 construction permit application and we feel that
10 that really is the primary issue today at the
11 hearing.

12 HEARING OFFICER WEBB: Okay. Thank
13 you. The petitioner may call their first witness.

14 MS. SNITTJER: Mr. Green.

15 HEARING OFFICER WEBB: The witness
16 stand is right over at the end here.

17 MS. SNITTJER: We call Mr. Dale
18 Green.

19 HEARING OFFICER WEBB: Okay. Would
20 the court reporter please swear in the witness.

21 WHEREUPON:

22 DALE GREEN
23 called as a witness herein, having been first duly
24 sworn, deposeth and saith as follows:

1 D I R E C T E X A M I N A T I O N

2 BY MS. SNITTJER:

3 Q. Okay. Good morning, Mr. Green. Can
4 you please state your full name for the record.

5 A. Dale Green.

6 Q. And, Mr. Green, you're the station
7 manager at Midwest Generation's Powerton station,
8 correct?

9 A. That's correct.

10 Q. And the address of the Powerton
11 station is 13082 East Manito Road in Pekin,
12 correct?

13 A. That's correct.

14 MS. SNITTJER: And that answers the
15 Board's Question 1.

16 BY MS. SNITTJER:

17 Q. Can you briefly describe your duties
18 as station manager at Powerton?

19 A. Yeah, my primary duties are to
20 oversee the maintenance and operations on a
21 day-to-day basis to make sure we're available to
22 produce electricity based on different market
23 conditions.

24 Q. And how long have you been the

1 **station manager at Powerton?**

2 A. Since 2014.

3 Q. **And were you employed there prior to**
4 **2014?**

5 A. 2000.

6 Q. **And you're familiar with the**
7 **historical and current operations at the Powerton**
8 **station, correct?**

9 A. Yes.

10 Q. **And you signed an affidavit**
11 **verifying certain facts in Midwest Generation's**
12 **variance petition, correct?**

13 A. Yes.

14 Q. **And have you reviewed this affidavit**
15 **recently?**

16 A. Yes.

17 Q. **And are the facts stated in your**
18 **affidavit true today?**

19 A. Yes.

20 Q. **Mr. Green, can you please describe**
21 **the ash sluice system at Powerton?**

22 A. Yes, the ash sluice system at
23 Powerton basically consists of two separate
24 operations, one for bottom ash and one for fly

1 ash. Bottom ash is sluice from the bottom of the
2 boiler out to the dewatering bins where the decamp
3 water or the water that was used to sluice it out
4 there overflows and goes out to the ash surge
5 basin.

6 The other process is the fly ash
7 system, which fly ash then is collected in
8 precipitators, drops out into hoppers, which is
9 conveyed via vacuum to the ash -- the ash silo
10 which is hauled offsite for beneficial use.

11 **Q. So to confirm, the only basins that**
12 **are part of the ash sluice system are the ash**
13 **surge basin and the bypass basin, correct?**

14 A. That is correct.

15 **Q. And is the metal cleaning basin part**
16 **of the ash sluice system?**

17 A. It is not.

18 **Q. What is the function of the metal**
19 **cleaning basin?**

20 A. The metal cleaning basin is used
21 periodically, mostly annually once a year when we
22 wash the boilers. When we wash the boilers, the
23 water that is used to wash the boilers then goes
24 out to the ash -- or the metal cleaning basin

1 where the water is processed.

2 We will put the system on
3 recycle and add chemicals to drop out the
4 precipitants and then once the water is clean
5 enough for our NPDES permit, we then discharge
6 that water to the ash surge basin and then
7 periodically we do maintenance on our fly ash silo
8 where we clean out the fly ash from the fly ash
9 silo and we will place that material on the ramp
10 going down to the metal cleaning basin and then
11 later remove it offsite.

12 **Q. So I want to break down those two**
13 **functions a little bit more.**

14 **As to the boiler wash water,**
15 **what is in boiler wash water or what is boiler**
16 **wash water?**

17 A. Boiler wash water is basically the
18 bi-products of combustion. We wash the tubes off
19 to increase heat transfer, that's the primary
20 focus of why we do it, and the water then goes out
21 into the metal cleaning basin where we process it
22 per our NPDES permit water quality that are listed
23 in that permit before we can discharge it.

24 **Q. And has Midwest Generation ever**

1 **detected any fly ash in the boiler wash water?**

2 A. To my understanding, we have not
3 tested or have any tests where we have detected
4 fly ash in the boiler wash water as bi-products of
5 combustion.

6 MS. SNITTJER: And that responds to
7 Board Question 5.

8 BY MS. SNITTJER:

9 Q. **And approximately how much boiler**
10 **wash water circulates in the metal cleaning basin**
11 **during this boiler washing process?**

12 A. We will put about a million gallons
13 per day and typically it depends on how much we
14 run. We will wash for three days to seven days.

15 Q. **And you said this occurs annually,**
16 **correct?**

17 A. Annually, yes.

18 Q. **And it wouldn't be accurate to say**
19 **the water is stored there, rather it circulates,**
20 **correct?**

21 A. That's correct. We will circulate
22 the water until the solids precipitate out and
23 once that water meets our NPDES permit, the
24 qualities specified in our NPDES permit, we will

1 discharge it to the ash surge basin and then the
2 pond -- the metal cleaning basin is dewatered,
3 what we call dewatered, and the material that's
4 left there is left to dry. Once it is dried, we
5 scoop it up with an end-loader and haul it
6 offsite.

7 **Q. To clarify again, this is regulated**
8 **by your NPDES permit, correct?**

9 A. Yes.

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

12 MS. SNITTJER: Yes.

13 MR. RAO: Regarding Question 5,
14 Mr. Green, you mentioned that fly ash was not
15 detected in the processed water that was received
16 in the metal cleaning basin?

17 THE WITNESS: Correct.

18 MR. RAO: Have you tested the water
19 or is it just based on, you know --

20 THE WITNESS: We have not done any
21 test on the metal cleaning basin water to
22 determine whether there is fly ash involved in it
23 or not.

24 MR. RAO: Okay. Thank you.

1 BY MS. SNITTJER:

2 Q. Would it be possible to test that
3 boiler wash water for fly ash?

4 A. It's possible you could test it.
5 You would have to test it when it's actually going
6 out there versus after it's already cleaned up.
7 So, yes, is it possible? Yes, it's possible.

8 Q. To go back to the --

9 MS. SNITTJER: We addressed how much
10 boiler wash water circulates in the metal cleaning
11 basin during this process, which answers Board
12 Question 3 and 4.

13 BY MS. SNITTJER:

14 Q. Now, a couple of questions about the
15 fly ash storage in the metal cleaning basin and
16 just to be clear, these are two completely
17 separate processes, correct?

18 A. Yes.

19 Q. So the metal cleaning basin is
20 either holding boiler wash water or it is holding
21 dry fly ash, but not -- those two are not
22 commingled, correct?

23 A. That's correct.

24 Q. And how much fly ash is placed in

1 **the basin during these maintenance events?**

2 A. When we clean out our silo, it's
3 roughly five truckload -- dump truckloads of fly
4 ash that gets put in -- placed on the ramp going
5 down into the basin.

6 MS. SNITTJER: And that responds to
7 Board Question 3 and 4 as well.

8 MR. RAO: May I ask a follow up?

9 MS. SNITTJER: Yes.

10 MR. RAO: So you mentioned the
11 processed water and fly ash is not commingled. So
12 when you place fly ash in the metal cleaning
13 basin, it will be completely dried or will it
14 contain any remnants of the processed water?

15 THE WITNESS: No, it is completely
16 dry. We basically place that material on the ramp
17 going down into the bypass basin, not in the
18 bypass basin itself.

19 MR. RAO: Thank you.

20 BY MS. SNITTJER:

21 **Q. And so you said four to five**
22 **truckloads, is that correct?**

23 A. Roughly, yes.

24 **Q. And to give some context, about how**

1 **much is that in relative to total facility**
2 **operations?**

3 A. It's probably less than a percent.
4 It's a very, very small, de minimus amount.

5 **Q. And how often is the metal cleaning**
6 **basin used as this temporary lay down for the dry**
7 **ash?**

8 A. That probably takes place about four
9 times a year, just depends on the maintenance
10 activities of this particular silo that we clean
11 out.

12 **Q. And how long will it stay in the**
13 **basin once you place it there?**

14 A. It's not very long. Typically, what
15 happens once we place it in the basin we're
16 usually offline, so fly ash trucks are available,
17 and the minute we place it there and get done with
18 the cleaning activities, we schedule trucks then
19 to load it and haul it offsite. So less than two
20 weeks, three weeks max. Something like that.

21 **Q. So other than this two to three**
22 **weeks that the dry ash is in the basin and then**
23 **the once per year that the boilers are washed,**
24 **other than that, is the metal cleaning basin**

1 empty?

2 A. Yes.

3 Q. And the metal cleaning basin is
4 lined, correct?

5 A. Yes.

6 Q. And is the metal cleaning basin's
7 liner the same as the ash surge basin and the
8 bypass basin that are part of the ash sluice
9 system?

10 A. Yes.

11 Q. Does Powerton station have a
12 fugitive dust plan?

13 A. Yes.

14 Q. I'm handing you a copy of what will
15 be marked as Hearing Exhibit 1.

16 MS. GALE: S.

17 MS. SNITTJER: S. Sorry. Hearing
18 Exhibit S.

19 (Document marked as Petitioner's
20 Exhibit No. S for
21 identification.)

22 BY MS. SNITTJER:

23 Q. Is this a copy of Powerton's
24 fugitive dust plan?

1 A. Yes.

2 **Q. And was this fugitive dust plan**
3 **developed and stored in the ordinary course of**
4 **business?**

5 A. Yes.

6 **Q. And are you familiar with the**
7 **contents of this fugitive dust plan?**

8 A. Yes.

9 **Q. And what is the fugitive dust plan?**

10 A. The fugitive dust plan deals with
11 anything on our property that could emit dust. So
12 it looks at traffic on the roadways. It looks at
13 our -- our fly ash backhouse, anything that could
14 emit dust, and the purpose of this plan is to
15 ensure that we do not allow fugitive dust to flow
16 around the property.

17 As a matter of fact, if there is
18 an issue where we have fugitive dust, we either
19 shut the system down, we make sure that the
20 process -- the fugitive dust does not exit our
21 boundaries.

22 **Q. And is the metal cleaning -- would**
23 **any fugitive dust at the metal cleaning basin be**
24 **managed according to this fugitive dust plan?**

1 A. Yes, it is.

2 **Q. And there is a separate fugitive**
3 **dust plan at the Powerton station for managing**
4 **dust from CCR surface impoundments, is that**
5 **correct?**

6 A. Yes.

7 **Q. And is the metal cleaning basin**
8 **covered by this separate CCR fugitive dust plan?**

9 A. No.

10 **Q. And why is that?**

11 A. It's not -- well, it's not in that
12 plan and for -- primarily as you don't get
13 fugitive dust from that particular metal cleaning
14 pond because it's mainly used as water. We do
15 dump the -- place the ash on the ramp going into
16 the metal cleaning.

17 If there is any fugitive dust
18 from that, we follow this plan. We will wet it
19 down. We'll stop the evolution where it was
20 taking place with the placing the ash there. We
21 will wet it down. Basically, it will permeate
22 about three inches into that layer of ash and then
23 we continue the evolution.

24 **Q. And just to -- we'll get back to the**

1 process, but just to go back, will the metal
2 cleaning basin be incorporated into the separate
3 CCR surface impoundment fugitive dust plan?

4 A. Yes. Yes.

5 Q. And are you aware that the deadline
6 in the CCR rule to incorporate the metal cleaning
7 basin into the CCR surface impoundment fugitive
8 dust plan is October 31st, 2021?

9 A. Yes.

10 Q. And is Midwest Generation asking for
11 an extension of the deadline to incorporate the
12 metal cleaning basin into this separate fugitive
13 dust plan?

14 A. No.

15 Q. And, in fact, that request was
16 withdrawn from Midwest Generation's variance
17 petition, correct?

18 A. Yes.

19 Q. So by October 31st, the metal
20 cleaning basin will be subject to both of these
21 fugitive dust plans, correct?

22 A. Yes.

23 Q. And you described -- can you
24 describe again how Powerton currently manages dust

1 **at the metal cleaning basin?**

2 A. It's basically the way I described
3 it. So if we're placing ash on the ramp that goes
4 down to the metal cleaning basin, if that starts
5 to emit some kind of fugitive dust, we stop the
6 evolution, we stop the process, we will take water
7 and we will wet that material down so it stops the
8 fugitive dust from going anywhere and then we will
9 continue, you know, placing ash there.

10 **Q. And if fly ash is mixed with water,**
11 **doesn't it become concrete?**

12 A. Not if you use a small amount of
13 water. So we use enough water that it permeates
14 probably about three inches, maybe four inches of
15 that top layer and it kind of develops a little
16 bit of a crust to it once it dries, which stops
17 the fugitive dust. But you would have to mix an
18 enormous amount of water and let it sit for an
19 extended period of time before it becomes so hard
20 that it's like concrete.

21 **Q. And is this process to manage dust**
22 **at the metal cleaning basin, will this change or**
23 **is it expected to change when the metal cleaning**
24 **basin is incorporated into the CCR surface**

1 **impoundment fugitive dust plan?**

2 A. No.

3 **Q. Mr. Green, I'm going to hand you**
4 **what is marked as Hearing Exhibit T.**

5 MS. ZEIVEL: Should it be
6 petitioners hearing exhibit?

7 MS. SNITTJER: Yes.

8 (Document marked as Petitioner's
9 Exhibit No. T for
10 identification.)

11 HEARING OFFICER WEBB: Do you
12 want -- I know we discussed it off the record, but
13 do you want to backtrack and mention on the record
14 why you're starting with S and T?

15 MS. SNITTJER: Yes. Our response to
16 the Agency's recommendation the last exhibit was
17 Exhibit R. So we're starting the hearing with
18 Exhibit S and this will be Exhibit T.

19 MS. GALE: So to back up, the
20 petition had exhibits attached to it. We started
21 at A and went A through Q and we added in our
22 response -- we added another Exhibit R and to keep
23 it simple instead of adding a number we're going
24 to continue on with S.

1 HEARING OFFICER WEBB: Thank you.

2 BY MS. SNITTJER:

3 Q. Mr. Green, what is this document?

4 A. This document is the Illinois
5 Ambient Air Monitoring 2022 Network Plan.

6 Q. And where did you locate this
7 document?

8 A. This document was from the Agency's
9 website.

10 Q. And have you reviewed this document?

11 A. Yes, I have.

12 Q. And according to this document,
13 where is the closest air monitoring station to
14 Powerton?

15 A. It's in Peoria on Jefferson Street.

16 Q. And this is a PM 2.5 monitor,
17 correct?

18 A. Yes. According to the document,
19 yes.

20 MS. SNITTJER: And that responds to
21 Agency's Question 2, of the Board's Question 2.

22 Sorry.

23 BY MS. SNITTJER:

24 Q. And can the Jefferson Street air

1 **monitoring station detect fugitive dust from the**
2 **Powerton property?**

3 A. In my opinion, no. Because we do
4 not let fugitive dust exit the property
5 boundaries. We maintain it and keep it per our
6 fugitive dust plan.

7 Q. **And that's the purpose of the**
8 **fugitive dust plan, correct?**

9 A. Yes, it is.

10 Q. **And for the metal cleaning basin,**
11 **Midwest Generation intends to fully comply with**
12 **all the technical requirements of the CCR rule,**
13 **correct?**

14 A. Yes.

15 Q. **So the metal cleaning basin is**
16 **expected to be closed or retrofitted according to**
17 **the requirements of the Illinois CCR rule,**
18 **correct?**

19 A. Yes.

20 Q. **So what is Midwest Generation asking**
21 **for in this variance request?**

22 A. Just more time.

23 MS. SNITTJER: Thank you. We'd like
24 to move to enter the two exhibits S and T. Yes, S

1 and T into evidence.

2 HEARING OFFICER WEBB: No objection
3 I'm assuming from the Agency?

4 MS. ZEIVEL: No objection.

5 HEARING OFFICER WEBB: Okay. S and
6 T are admitted.

7 MS. SNITTJER: I have no further
8 questions.

9 HEARING OFFICER WEBB: Okay. Wait.
10 Mr. Rao, do you have any more questions?

11 MR. RAO: No.

12 HEARING OFFICER WEBB: Anything --
13 any follow-up from you?

14 MS. ZEIVEL: Just really briefly,
15 Mr. Green.

16 C R O S S E X A M I N A T I O N

17 BY MS. ZEIVEL:

18 Q. Can you expound on the size of the
19 dump trucks, what maybe the tonnage is or are they
20 single or double axel or what are we talking
21 about? What are you referring to?

22 A. Once we haul it out, it's basically
23 a semi-dump truck.

24 HEARING OFFICER WEBB: I apologize.

1 I should have also asked, are there any questions
2 from --

3 MR. FOX: (Negative nod.)

4 HEARING OFFICER WEBB: Okay. Does
5 the Agency have any more questions for this
6 witness?

7 MS. ZEIVEL: No, that was it. Thank
8 you.

9 HEARING OFFICER WEBB: Okay. Thank
10 you, sir.

11 MS. GALE: Midwest Generation calls
12 Mr. Richard Gnat.

13 HEARING OFFICER WEBB: Would the
14 court reporter please swear in the witness.

15 WHEREUPON:

16 RICHARD GNAT

17 called as a witness herein, having been first duly
18 sworn, deposeth and saith as follows:

19 D I R E C T E X A M I N A T I O N

20 BY MS. GALE:

21 Q. Mr. Gnat, can you please state your
22 name for the record.

23 A. Richard Gnat, G-n-a-t.

24 Q. And who do you work for?

1 A. KPRG and Associates.

2 **Q. What is your position there?**

3 A. I'm a principal at KPRG and a
4 hydrogeologist by profession.

5 **Q. Can you just briefly describe what
6 you do at KPRG?**

7 A. Sure. I plan and direct most of the
8 technical work for our office and our work
9 primarily includes subsurface evaluations, soil
10 and groundwater characterizations and remediation,
11 which is our specialty.

12 **Q. And about how long have you been
13 doing that?**

14 A. Since 1984.

15 **Q. So a while. In this case, what --
16 what is KPR doing -- excuse me.**

17 **In this case, what is KPRG doing
18 for Midwest Generation at the Powerton station
19 generally?**

20 A. We've done several environmental
21 projects for them, but currently, and for the last
22 several years, our primary work at Midwest
23 Generation is associated with the groundwater
24 monitoring for the CCR impoundments under the

1 federal rule and under the compliance commitment
2 agreement.

3 Q. And, Mr. Gnat, you're familiar with
4 the requirements in Illinois' CCR rule for the
5 operating permit application and the construction
6 permit applications?

7 A. Yes, I am.

8 Q. So tell me how are you familiar with
9 those requirements.

10 A. I've been involved with Midwest
11 Generation in looking at the proposed rules that
12 were coming out and providing some input and some
13 questions, comments and also provided testimony as
14 part of the hearings.

15 Q. Okay. I want to talk about some of
16 your other experience.

17 You've participated or assisted
18 in preparing a groundwater model, correct?

19 A. Correct, yes. I'm not a groundwater
20 model -- modeler, but -- it's a fairly specialized
21 field, but I have been involved with them and
22 directed them and helped put them together, yes.

23 Q. And I think you've already described
24 this, but you have significant experience in

1 **establishing groundwater monitoring programs,**
2 **right?**

3 A. Yes, I do.

4 Q. **Tell me about your experience doing**
5 **part of that -- isn't that statistical analysis?**
6 **Tell me about that.**

7 A. That is correct. I'm not a
8 statistician by trade. However, I did have a
9 number of statistics courses both in undergraduate
10 and in graduate school, including statistics
11 specifically for geoscience applications, and I've
12 been involved with doing geostatistics on
13 groundwater datasets from the early times of RCRA
14 impoundments through some of the more current
15 rules under the federal rules as well.

16 Q. **And you signed an affidavit for**
17 **Midwest Generation's petition for a variance for**
18 **the metal cleaning basin, right?**

19 A. Correct.

20 Q. **And have you reviewed that -- excuse**
21 **me. Have you reviewed that affidavit recently?**

22 A. Yes, I have.

23 Q. **And are the facts stated in your**
24 **affidavit true today?**

1 A. Yes, they are.

2 **Q. Mr. Gnat, I want to turn to Board**
3 **Question 1. We already mentioned the address, but**
4 **the Board also asked about a couple other things.**
5 **I'm missing one here, but I'm going to hand you**
6 **what is Petitioner's Exhibit Q. I have a copy**
7 **here as well.**

8 MS. GALE: Mr. Rao, if you want to
9 look at it.

10 MR. RAO: Thanks.

11 BY MS. GALE:

12 **Q. What is Petitioner's Exhibit Q?**

13 A. This is a letter from Midwest
14 Generation to Mr. Alan Keller, Manager of Permit
15 Section, Bureau of Water, Illinois EPA dated July
16 15, 2009.

17 (Document marked as Petitioner's
18 Exhibit No. Q for
19 identification.)

20 BY MS. GALE:

21 **Q. Can you turn to -- I can't remember**
22 **the figure number, the Powerton figure at the end.**

23 A. Yes.

24 **Q. What figure is that for the record,**

1 **please?**

2 A. That is hard to tell on this figure.

3 **Q. Does it have any sort of**
4 **distinguishing title on it?**

5 A. It says, "figure number" and then at
6 the bottom of that figure where the figure number
7 would be is not reproduced very well. So I can't
8 say exactly what figure number that is.

9 **Q. Does it say the Powerton station on**
10 **it?**

11 A. Yes, it does.

12 **Q. Okay.**

13 MS. GALE: Mr. Rao, are you able to
14 find the figure?

15 MR. RAO: Is this the one?

16 THE WITNESS: Here you go.

17 MR. RAO: Got it.

18 MS. GALE: Okay.

19 BY MS. GALE:

20 **Q. So these are -- excuse me. These**
21 **are in answer to the second part of Board's**
22 **Question 1.**

23 **Mr. Gnat, can you please**
24 **describe the -- please describe the potable wells**

1 **around the station.**

2 A. Sure. On this figure, what was done
3 by Natural Resources Technologies, which is the
4 permit that pulled this together, is -- is a
5 radius of roughly 2,500 feet around where the
6 impoundments are, which is the standard radius
7 when looking for potable water wells in Illinois
8 here and there are some yellow dots on this map,
9 which -- which identify what those potable wells
10 were. Several are outside of that radius and then
11 there's -- there are one or two that are right
12 basically at that 25-foot radius.

13 **Q. And where are they located within**
14 **that radius?**

15 A. Okay. There is one that is located
16 to the south of Manito Road. It's right at the
17 2,500-foot line and then there's one that is
18 located just to the north -- I'm sorry -- to the
19 west that's right by what looks like the
20 substation, the ComEd substation, which is within
21 the Powerton property.

22 **Q. And the one to the south that's**
23 **up-gradient, right?**

24 A. Correct, groundwater flow does not

1 go to the south from this site.

2 **Q. And those to the west, what's in**
3 **between those wells and the metal cleaning basin?**

4 A. There is an intake channel that runs
5 through between all of the units. The CCR units
6 are to the south and east of the state -- of
7 that -- or, I'm sorry, to the east of that. I'm
8 looking at the map wrong. To the east of the
9 intake channel and then the particular --

10 **Q. So --**

11 A. -- wells at the far west side there.

12 **Q. And so by having the intake channel**
13 **in between, what does that mean in relation to the**
14 **metal cleaning basin?**

15 A. The part of the flow component that
16 is to the west is in the very shallow groundwater
17 that's within a more silty clay zone and it flows
18 and it will be directly discharging to that intake
19 channel, which then goes through the processing
20 facility.

21 **Q. So are those potable wells impacted**
22 **by the metal cleaning basin or any of the other**
23 **CCR surface impoundments?**

24 A. No, I do not believe so. No.

1 **Q. Okay. Mr. Gnat, what surface waters**
2 **are near the Powerton station?**

3 A. You've got the Illinois River to the
4 north and then Powerton Lake to the west,
5 northwest.

6 **Q. Okay. And how, if at all, would**
7 **those surface waters be impacted by the metal**
8 **cleaning basin?**

9 A. Well, Powerton Lake should not be
10 impacted. It's on the other side, again, of that
11 intake channel. Now, the groundwater flow within
12 the lower unit there in that more sandy gravel
13 unit is to the north and there's some diversity a
14 little bit to the northeast, a little bit to the
15 northwest, but it is flowing towards the Illinois
16 River.

17 However, we do have three wells
18 which are north of what's called the former ash
19 basin wells 2, 3 and 4, which are the closest to
20 the Illinois River and those generally do not have
21 any exceedances of any of the values that we've
22 looked at.

23 **Q. And the Powerton -- excuse me.**
24 **Powerton's NPDES permit discharges to the Powerton**

1 **Lake, correct?**

2 A. Yes.

3 Q. So you mentioned the groundwater and
4 you said it in some complexity, I think.

5 Can you please describe the
6 groundwater conditions at Powerton because it's a
7 bit complex?

8 A. Sure. There are really two units
9 that we've identified. The first is a shallower
10 unit that's -- it's really a discontinuance blend
11 of a more silty -- silty clay material and that's
12 really located within the area of where the metal
13 cleaning basin is and then it moves to the east to
14 just past the surge basin where it starts to pitch
15 out and further to the east. That unit is no
16 longer there.

17 So what we have found are the
18 wells that are actually screened within first
19 groundwater in that area, that first groundwater
20 appears within that unit. Where that unit doesn't
21 exist, groundwater appears a little bit deeper and
22 it's within that sand and gravel unit. So when we
23 look at the flow directions, we're looking at the
24 wells that are screened within that shallower

1 silty clay unit and then separately the wells that
2 are within that sand and gravel unit.

3 The two are hydraulically
4 connected, but there is a clear difference on the
5 water levels. So when we look at the silty clay
6 unit, groundwater flow is consistently to the west
7 right -- right to the intake channel there and
8 when we look at the groundwater flow within that
9 deeper sand and gravel unit it is in a
10 northwesterly direction with some diversion going
11 to -- a little bit to the northeast and a little
12 bit to the northwest.

13 MS. GALE: Mr. Rao, those are the
14 answers. Are you satisfied?

15 MR. RAO: Yes.

16 MS. GALE: Thank you.

17 BY MS. GALE:

18 **Q. All right. Mr. Gnat, you and your**
19 **firm are conducting many of the requirements under**
20 **the federal CCR rule for Midwest Generation, isn't**
21 **that correct?**

22 A. Correct.

23 **Q. Including your guys conducted the**
24 **alternate source demonstration for the ash surge**

1 **basin and the bypass basin, right?**

2 A. Correct.

3 **Q. For the record, can you just briefly**
4 **describe to us what the ultimate -- what an**
5 **alternate source demonstration does?**

6 A. Sure, an alternate source
7 demonstration takes a look at -- from your
8 monitoring round, if you've identified a potential
9 statistically significant increase in your -- in
10 the federal rule in your detection monitoring
11 parameters, which are their Appendix 3 parameters
12 and/or if you're in assessment monitoring, you
13 know, relative to the Appendix 4 parameters in
14 that case you're calculating groundwater
15 protection standards and if you have an exceedance
16 around a sampling you go out and do a resample.

17 If you -- if that resample
18 suggests that -- it verifies your exceedance, you
19 get kicked into either doing an alternate source
20 demonstration or to move into a corrective
21 measures study. The alternate source
22 demonstration basically is the next technical step
23 to really look at those exceedances and try and
24 make an evaluation do they really reflect the

1 release from the unit or is there something else
2 potentially occurring or in the area that may be
3 associated with that exceedance and not a release
4 from the unit.

5 **Q. And for the Exhibit R that was**
6 **attached to Midwest Generation's response was the**
7 **2019 alternate source demonstration, you actually**
8 **signed that, correct?**

9 A. Correct.

10 **Q. To your recollection, what was the**
11 **conclusion of that alternate source demonstration**
12 **for the ash surge basin, the bypass basin?**

13 A. The conclusion was -- there were
14 several parameters that were in question if I
15 remember correctly that those exceedances weren't
16 associated with the release from the impoundment,
17 but rather in alternate source in the area and
18 that I believe the recommendation was to continue
19 with the assessment monitoring in which the
20 program was in at the time.

21 **Q. Great. Thank you. I want to turn**
22 **to the operating permit application. You and your**
23 **firm are also conducting the groundwater**
24 **monitoring for Midwest Generation at its stations**

1 **under the new Illinois CCR rule, correct?**

2 A. Correct.

3 Q. Okay. And that now includes the
4 **metal cleaning basin, is that right?**

5 A. That is correct, yes.

6 Q. In fact, you or someone at your firm
7 **arranged for the additional groundwater monitoring**
8 **wells to be installed around the metal cleaning**
9 **basin, right?**

10 A. Correct.

11 Q. So, Mr. Gnat, what did Midwest
12 **Generation have to do to install those wells?**

13 A. Sure. So in order to get into
14 compliance with what the new rule is requiring for
15 a groundwater monitoring network, specifically for
16 the metals cleaning basin, we needed to add two
17 additional down-gradient wells and those would be
18 along that western perimeter.

19 Well, there was no road along
20 that western perimeter to access that area. So we
21 had to consider putting a road in so a driller can
22 access and put in the wells and subsequently field
23 crews to sample.

24 Q. And, Mr. Gnat, when you guys were

1 **considering installing that road, were there any**
2 **concerns about it?**

3 A. Sure. I mean, that -- that west
4 backend of the metals cleaning basin is the berm
5 for the metals cleaning basin and my first
6 question to Midwest Generation was to make sure
7 that -- or issue an item to address -- I didn't
8 want to have anything done in modifying that berm,
9 in this case putting in a roadway, that might
10 potentially impact the special integrity of that
11 berm itself.

12 KPRG does not have any
13 structural engineers on staff. We don't do
14 structural work. So I requested Midwest
15 Generation to contact who they use for their
16 structural evaluations to make sure that when we
17 have that road done that we're not going to breach
18 that integrity.

19 **Q. So before that road could even be**
20 **put in, there had to be another engineering**
21 **structural evaluation to make sure that road could**
22 **be structurally sound?**

23 A. Correct.

24 **Q. Okay. And then so after that all**

1 **occurred, when did the wells get installed?**

2 A. I believe we put them in in March.

3 **Q. And at that time in March, did that**
4 **include dedicated pumps?**

5 A. No, it did not.

6 **Q. Why not?**

7 A. Dedicated pumps you have to know
8 what the geometry of your well is, how deep the
9 well is and so on and you provide that information
10 to the manufacturer. We use QED and that
11 manufacturer actually cuts and develops your
12 sampling system specifically for that well.

13 So once we put the wells in,
14 then we right away once we know where the screens
15 are set and so on, we pass that information to
16 QED. Usually, we get the pumps pretty quick. In
17 this case right now, there's a lot of issues with
18 materials and supplies and so on. It took a
19 little bit longer than normal to get those pumps.

20 **Q. So what did you have to do instead?**

21 A. Well, the initial concern for me
22 was -- I was to try and make sure that Midwest
23 Generation stays in compliance with the federal --
24 with the state rule that was coming up. Knowing

1 that we have eight rounds of groundwater data that
2 needs to be collected and we need to have that
3 collected at that time within 180 days of the
4 rule, you know, the intent of that sampling is to
5 develop a background and a representative
6 background and ideally it should, you know,
7 include a seasonal variation.

8 One-hundred-and-eighty days in the Midwest does
9 not include a seasonal variation.

10 But -- so even -- even with that
11 concern, we needed to start sampling right away.
12 So I had the crew do the initial round of sampling
13 with a bailer while we were waiting for the pumps
14 so that at least we started getting rounds of
15 samples and I -- I brought that up and I -- in
16 fact, I believe I put that into my affidavit
17 specifically so that people reading it and the
18 Agency would know that we did that because the
19 change in methodology from a bailer sampling to a
20 dedicated bladder pump sampling could affect those
21 results, especially if you're looking at it from a
22 statistics standpoint and I believe the Agency
23 agreed with that.

24 And assuming that we can get the

1 eight rounds of representative rounds without that
2 bailer sampling, we're certainly not going to use
3 that in aid of our calculations.

4 Q. Right. So if we get this extension,
5 we won't -- the Agency is going to -- already said
6 they're objecting to using the bailer sample,
7 correct?

8 A. Yes.

9 Q. We only that -- you only did that at
10 the time because of the time constraints and you
11 wanted to collect something just in case, right?

12 A. Correct.

13 Q. And you have no intention upon using
14 that sample now particularly if we get the
15 extension, right?

16 A. That is correct, yes.

17 Q. Are there dedicated pumps installed
18 now?

19 A. Yes, there are.

20 Q. And so you and your firm are
21 preparing the operating permit applications for
22 the Midwest Gen stations, correct?

23 A. Correct.

24 Q. And that's five stations total,

1 right?

2 A. Correct.

3 Q. And for all the five stations, there
4 are a total of nine federal CCR surface
5 impoundments, right?

6 A. Correct.

7 Q. You can do the math in your head.

8 About how many people at KPRG
9 are working on the operating permit application?

10 A. Right now we have five working on
11 them right now and then as we have other people
12 kick in on, you know, if we can compartmentalize
13 something that the main five people need we can
14 carve that off and have other people input into it
15 as well.

16 Q. And I mean this kindly. KPRG is not
17 a big operation, right?

18 A. No, we're not.

19 Q. So five is a pretty significant
20 chunk of your group, right?

21 A. Twenty-five percent.

22 Q. So let's talk about those operating
23 permit applications.

24 Generally, what sort of

1 **information is involved to submit to the Agency?**

2 A. In the operating permits, you have
3 to have a detailed discussion and presentation of
4 the history of each unit, when it came online, if
5 there were any changes in liner construction over
6 time, what was placed into the impoundment over
7 time and any information then on the chemistry of
8 what was placed in the impoundment over time.

9 That's a lot of information that
10 you need to do a series of interviews or whatnot
11 with plant personnel going through all the
12 historical documentation to try and get as
13 complete of a record as you can on that because
14 that does feed in then to a number of other things
15 within that operating permit and one of which is
16 trying to get the chemical characteristics of what
17 were in those ponds and certainly, you know,
18 something that was placed in there 10, 15 years
19 ago, we really can't sample that.

20 It's no longer being placed
21 there and/or if it was different it may not be
22 represented with what is in there now, but
23 certainly from the hearing and the subsequent
24 answers to questions and I believe conference

1 calls that we've had with Illinois EPA our
2 understanding, too, is now for the existing ash
3 that's in the impoundments we have to sample that
4 ash and analyze those samples for the full list of
5 the parameters identified in Part 845.600.

6 And we use that as well, you
7 know, as this is representative of what is in
8 there currently right now and with having that
9 full list of parameters. I think that does
10 provide a lot of good information. So that whole
11 sampling program as well. As well then you also
12 need to include a very detailed hydrogeologic
13 characterization of the site, which sets up the
14 basic conceptual model and then development of the
15 groundwater sampling programs and statistical
16 evaluation programs and so on and at the end of
17 the day it's to also include what your proposed
18 groundwater protection standards are going to be
19 for each constituent for that unit.

20 **Q. And also you have to do location**
21 **restriction demonstrations, right?**

22 A. Correct. Location -- yes.

23 **Q. And a preliminary closure plan,**
24 **right?**

1 A. A preliminary closure and
2 postclosure plan are also included as part of the
3 operating permit, yes.

4 Q. So even for the federal CCR surface
5 impoundments that have -- already have a bunch of
6 this information, approximately how many hours
7 will it take to prepare one operating permit
8 application?

9 A. One operating permit application
10 we're estimating in the order of 600 hours.

11 Q. Okay. So for a CCR surface
12 impoundment that is not a federal pond and does
13 not have all this background information,
14 approximately how many hours would it take to
15 complete all that work?

16 A. It will be certainly more than 600
17 hours. Perhaps 800 hours or so.

18 Q. So I think you said the collection
19 of groundwater data, you know, the operating
20 permit must have at least eight rounds of
21 groundwater data, correct?

22 A. Correct.

23 Q. And following the collection of the
24 groundwater data, what do you do with those eight

1 **rounds?**

2 A. Once you get your eight rounds of
3 data, you have to do a statistical evaluation of
4 that data and that's the first step in developing
5 your groundwater protection standards. So we use
6 a computer program called Sanitas to assist with
7 our statistical evaluations.

8 The first thing you need to do
9 is take all of the analytical data as it's coming
10 in and so on. You have to convert those files we
11 get from the lab. We need to convert them to flat
12 files and put them into the program and really the
13 first step is running a series of quick
14 evaluations, some quick runs and just to make sure
15 that the program is recognizing all the data
16 that's being put into it.

17 If you're looking at eight
18 wells, it's not picking up seven -- you know,
19 seven points of data, it's picking up all eight
20 points of data, you know, and so on and if
21 something is missing, then you have to go back in
22 and figure out which data line is not -- is it not
23 picking up, what is wrong with -- you know, and
24 the flat file needs to be corrected and once you

1 get an understanding, okay, the program is picking
2 everything up that we have in our database here
3 that we fed into it, then you start the actual
4 statistical evaluation process.

5 **Q. Okay. And the statistical**
6 **evaluation process, I mean, how many parameters in**
7 **this case, an Illinois CCR rule, will you be**
8 **looking at?**

9 A. We have 22 parameters that we have
10 to look at per well.

11 **Q. Per well. Okay. And then can --**

12 MS. GALE: So this is answer to
13 Question 8A of the Board's question.

14 BY MS. GALE:

15 **Q. Can the statistical analysis be done**
16 **before the eight rounds of data are collected?**

17 A. No, it can't. You need a full round
18 of -- at the minimum and -- and the requirement is
19 a round of eight -- eight rounds of samples and to
20 start any type of statistical calculation short of
21 that doesn't fulfill the purpose or the need or
22 the requirement for that statistical evaluation
23 and one additional round can affect those
24 calculations and reverberate all the way through.

1 Absolutely.

2 Q. Right. Because you're doing --
3 you're evaluating each well for each parameter.
4 What -- can you describe a little bit what that
5 means when you do that for each parameter, what
6 you -- at each well?

7 A. So let's just take for calculating
8 the up-gradient background statistic. The first
9 thing we look at is whether or not the
10 distributions are normal or not normal and so
11 that's one whole set of calculations, but we
12 usually -- whenever possible we try and have --
13 unless it's one very small focused unit, we
14 usually try and have at least two up-gradient
15 wells identified within any program and the
16 purpose for that is, yeah, we've got eight rounds
17 of data that are required, but for background
18 statistics the more data you have the better.

19 So we usually try to have more
20 than one up-gradient point and that way we look at
21 each up-gradient point separately, but then we
22 look at them together for each parameter.

23 So say Wells 1 and 2 are
24 up-gradient wells and we're looking at boron and

1 boron in Well 1 behaves -- it's a normal
2 distribution, normal distribution in Well 2. Then
3 we combine the two datasets for boron and we
4 compare them actually, not combine them, but
5 compare them and if there is no statistically
6 significant variation between those two datasets
7 we can pull the two and now use a background
8 dataset of 16 points rather than eight points, a
9 much better statistical assessment and in some
10 cases you'll find that there is some spatial
11 variation between the two up-gradient points and
12 you can't combine them. So then you have to
13 decide out of those two points which one am I
14 going to use for my background calculation and we
15 usually will err on the conservative side.

16 **Q. Great.**

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

18 MS. GALE: Please.

19 MR. RAO: I think when we asked
20 Question 8A it was not about doing the statistical
21 evaluation. We are under the impression what the
22 Agency was saying when you submit the operating
23 permit you need to identify what procedures you're
24 going to use to evaluate the data.

1 So the question was, do you know
2 what procedures you're able to use before you
3 collect the data or do you need to collect the
4 data and then decide what statistical procedures
5 you're going to apply?

6 MS. GALE: You anticipated my next
7 question.

8 MR. RAO: I'm sorry.

9 MS. GALE: That's okay.

10 THE WITNESS: Sure. Actually to put
11 a little bit -- to be a little bit on a parallel
12 track. Until you have all of your background
13 data, you don't know exactly the statistical
14 method you're going to use.

15 However, we are developing as
16 part of the permit application and also as part of
17 the federal rule we developed a statistical
18 approach. This is how we're going to look at the
19 data and make our decisions as to which
20 statistical approaches we may or may not use and
21 so we've got that plan, which -- which kind of
22 gives this is the guide of how we're going to
23 approach the study and then once you get the data
24 you use the guide and determine which path you're

1 going to go down through statistically to do your
2 evaluations for that particular well or parameter
3 and it goes down to parameter as well.

4 MR. RAO: So there can be changes
5 after you collect the data --

6 THE WITNESS: Correct.

7 MR. RAO: -- and what you decide
8 every year?

9 THE WITNESS: Correct.

10 MS. GALE: So I guess I'll ask it a
11 different way. The data really informs the
12 ultimate choice, correct?

13 THE WITNESS: Yes.

14 MR. RAO: Thank you.

15 MS. GALE: No problem. Is that
16 good?

17 MR. RAO: Yes.

18 MS. GALE: I think that was 8B.

19 BY MS. GALE:

20 Q. Mr. Gnat, I wanted -- to your
21 recollection, we were discussing this yesterday,
22 but it's been 24 hours.

23 At the metal cleaning basin,
24 there are two wells there, Monitoring Well 14 and

1 **Monitoring Well 15. Monitoring Well 15 I believe**
2 **you said is part of the federal CCR permit**
3 **program, correct?**

4 A. Correct, that's a down-gradient well
5 for the ash surge basin.

6 **Q. But Monitoring Well 14, what is**
7 **that?**

8 A. Monitoring Well 14 was installed on
9 the northwest side of the metals cleaning basin as
10 part of a permit requirement and as part of the
11 initial hydrogeologic evaluation that was
12 conducted I believe in 2011 by Patrick Engineering
13 and that is included in the compliance commitment
14 agreement, CCA monitoring, for the Powerton
15 station.

16 **Q. Are those wells sampled similarly?**

17 A. Well 14 is under the CCA. That's
18 for dissolved metals and the federal rule, even 15
19 has dissolved metals, too. It's part of the CCA
20 program, I believe, but the federal rule CCR
21 sampling is for total metals just like for the
22 Illinois CCR rule. It's not filtered in the
23 field.

24 **Q. So today could you use the well data**

1 **from 14 to even start a statistical analysis?**

2 A. No. Even though the dissolved -- or
3 the dissolved metals and the total metals from
4 various previous hearings and so on, it was
5 determined that those numbers are pretty close,
6 but they're not the same and not the same is
7 critical in statistical evaluations.

8 Q. I want to go back to your discussion
9 about the statistical analysis. You said it's all
10 done with a computer program called Sanitas, but,
11 I mean, is it -- do you just sit and run it or is
12 there some human element to it, too?

13 A. Sure. There's a lot of times,
14 especially everything nowadays, it's computerized.
15 So everything will be quick. You can do it fast,
16 but there is that whole human component that
17 people tend to forget about and when you're
18 looking at a lot of statistical -- you know, large
19 datasets, a lot of statistical evaluations, we're
20 doing 22 parameters per well and then comparing
21 up-gradient and down-gradient there are a lot
22 of -- you can't just take the output and say,
23 okay, this is the value.

24 You have to take a look at that

1 output and make sure, again, is it picking
2 everything up that it needs to? Does that result
3 make any sense from everything that you know about
4 that site?

5 And, you know, so you're going
6 through all these and it's a step process. First,
7 you do the -- you evaluate the type of
8 distribution, you evaluate is there any
9 seasonality. Are there any outliers? Each one of
10 these is a separate set of calculations.

11 And then that finally ultimately
12 feeds -- once you get into that saying, okay, I'm
13 going to be doing the evaluation using this method
14 and calculating a prediction limit for the -- for
15 the up-gradient values and then comparing the
16 down-gradient to it, you know, quite honestly
17 having done this a number of times after a while
18 your eyes go cross eyed and you start losing the
19 forest from the trees and it is absolutely
20 critical that at some point whoever is doing these
21 evaluations you have to walk away from it for two
22 or three days and then come back and take a look
23 with a fresh set of eyes and make sure that you're
24 coming to the same conclusion. And so it is a

1 time-intensive process. Even though you're using
2 computers, we're figuring for a standard dataset
3 for something like the metals cleaning basin,
4 that's a four to six-week process.

5 **Q. Okay. All right. So then once you**
6 **have that background established and you've done**
7 **the statistical analysis, let's pretend or let's**
8 **hypothetical that you find in the next groundwater**
9 **sample an elevated concentration of one of the**
10 **845.600 parameters, what do you do then?**

11 A. Once the groundwater protection
12 standard is established?

13 **Q. Correct.**

14 A. So in general, at least the way the
15 federal rule ran, once you calculate a groundwater
16 protection standard or a prediction limit in the
17 case of their detection parameters in Appendix 3,
18 it's that next set of quarterly data that you
19 sample is then compared against the values that
20 you have calculated.

21 So once that's collected and if
22 you see that there is an exceedance, you do an
23 immediate resample, immediate as you can. We
24 should try to get out there within two weeks or so

1 of seeing an exceedance and then if that resample
2 comes back still above standard, it basically
3 varies the initial value, then you have -- you
4 choose to either -- you can go through the
5 alternate source demonstration process which we
6 talked about a little bit or move to corrective
7 measures study.

8 **Q. And, to your recollection, under the**
9 **Illinois CCR rule, how long do you have for an**
10 **alternate source demonstration?**

11 A. Under -- under the Illinois rule is
12 60 days to do the alternate source demonstration
13 and then Illinois EPA has 30 days to review it and
14 either agree or disagree with it.

15 **Q. So in this case, Midwest Generation**
16 **is asking for until end of January to do the**
17 **groundwater assessment and statistical analysis,**
18 **then there's another round of sampling in May**
19 **probably?**

20 A. At the end of -- well, our usual
21 rounds are going to be -- we try not to sample in
22 January, just too cold although last February was
23 subzero. So we usually try and sample on a
24 quarterly sampling will be in February and May,

1 kind of the middle of the quarter timeframe. So
2 February, May, August.

3 **Q. So doing that calculation, when**
4 **would the alternate source demonstration be done?**

5 A. If -- if we -- now, let's also
6 understand here so at the end of -- of January we
7 will have our statistical evaluations done and our
8 proposed groundwater protection standards under
9 Illinois EPA's rule. That gets fed in as part of
10 the operating permit.

11 Now, recognize those are still
12 proposed. Those haven't been reviewed by IEPA.
13 They haven't agreed or disagreed with them. So if
14 we do the next quarter of sampling, let's say it's
15 in February, we get our data back by mid-March or
16 so, then, you know, we're starting to get our data
17 back towards the beginning of March, the data
18 generally takes 30 to 45 days to get that and so
19 that's where you get your first indication on a
20 comparison back against what we're proposing is
21 that's still not -- it hasn't been approved yet.

22 **Q. So the alternate source**
23 **demonstration would be done you said in March,**
24 **probably mid-May, right?**

1 A. Correct. So let's say that by the
2 end of March we -- we have -- or mid-March then we
3 go out and we do a resample to verify. So by
4 mid-April, say we've got an idea, mid-April to end
5 of April we've got an idea whether or not we have
6 a potential exceedance here.

7 Again, on a proposed number and
8 that would start the clock. So let's -- if we use
9 end of April, we've got May and June 60 days to do
10 the alternate source demonstration if that's what
11 is decided to do.

12 **Q. So not until probably end of June**
13 **would we actually know whether the metal cleaning**
14 **basin was causing contamination, correct?**

15 A. Correct, IEPA has 30 days to review
16 that. Yeah.

17 **Q. You're right. That's true. So in**
18 **your opinion, is there enough information**
19 **available today to know whether the metal cleaning**
20 **basin is a Category 5 or a Category 7?**

21 A. From, in my opinion, I don't think
22 there is -- the dataset is not complete yet and so
23 with any reasonable accuracy, I would hesitate to
24 make that guess because that's really what it

1 comes down to. Guess or educated guess, it's
2 still a guess and if we can wait a little bit
3 longer and not do a guess, I think that's the
4 preferable alternative.

5 Q. Okay. Great. I'm going to turn --
6 yeah, I'm going to turn to the construction permit
7 applications.

8 You're also assisting in
9 preparing the construction permit applications for
10 Midwest Generation, isn't that correct?

11 A. Correct.

12 Q. And Midwest Generation has how many
13 Category 3 surface impoundments?

14 A. Five.

15 Q. And so when are those due? Is it
16 five? Hang on. Four.

17 A. Four.

18 Q. Four. Yeah.

19 A. I believe those are due --

20 Q. February 1st, 2022?

21 A. -- February 1st. That's when
22 they're due. I'm back calculating when they have
23 to be done in order to meet all the public notice
24 and public meeting requirements.

1 **Q. Okay.**

2 A. So you have to subtract 60 days off
3 of that.

4 **Q. Right. And why is that?**

5 A. Because in accordance with the state
6 rule, you have to have a 30-day notification
7 period. You have to post your draft plan, 30-day
8 notification period and then within 30 days of
9 submittal, you have to have your public meeting.

10 **Q. Over 30 days actually, right?**

11 A. Correct.

12 **Q. And under the Illinois CCR rule,
13 Category 5 have to submit their applications by
14 August 1st to the Agency, August 1st, 2022,
15 correct?**

16 A. Yes.

17 **Q. And I think we just discussed the
18 rule requirements, when does the application
19 really need to be completed by?**

20 A. If it's August 1st, again to meet
21 what you need for the public involvement is
22 subtract 60 days off that. So basically June 1st,
23 June 2nd timeframe is when the draft has to be
24 submitted.

1 Q. And to make it a meaningful public
2 involvement, the draft must be relatively
3 complete, correct?

4 A. Sure.

5 Q. So by submitting an operating permit
6 application for the metal cleaning basin on March
7 31st, 2022, in your experience, would you expect
8 the Illinois EPA -- back up.

9 And the operating permit
10 application will include the proposed background
11 quality data and the proposed groundwater
12 protection standards and the statistical analysis,
13 in your expectation, would the Agency have
14 approved the proposed information before June 2nd,
15 2022?

16 A. I can't speak on the Agency's
17 behalf, but considering the number of applications
18 coming in, they've got a large task.

19 Q. Okay. So what is -- so assuming
20 that to be true, assuming they have a lot going
21 on, what does that mean for preparing a
22 construction permit application for the metal
23 cleaning basin by June 2nd, 2022?

24 A. Even from the timeframe we're

1 talking about, if we go through and do an
2 alternate source demonstration and so, the results
3 of which will affect what is going to be in the
4 construction permit application absolutely.

5 So even if we get our part of
6 the alternate source demonstration, of an
7 alternate source demonstration if that's the path
8 it would go down done by the end of April, even
9 without the Agency review on it, that gives us one
10 month, May, to complete and finalize a draft of a
11 construction permit application that we feel is
12 sufficient to put in front of the public, which is
13 an important thing and that document has to be
14 pretty darn close.

15 **Q. And that document is -- it would**
16 **include proposed background data in the**
17 **groundwater protection standards, correct?**

18 A. Correct.

19 **Q. But they would not be approved,**
20 **right?**

21 A. Unless we got approval already --

22 **Q. Right.**

23 A. -- prior to that.

24 **Q. Say we get approval in two months.**

1 **So it could happen.**

2 A. And the other question is perhaps
3 the Agency will not agree with the way we've
4 calculated something. What does that do?

5 **Q. Well, what does that do? If the**
6 **Agency rejects what we do and we've already put in**
7 **our proposed construction permit, what happens?**

8 A. It reverberates through the whole
9 process.

10 **Q. So we probably have to do a second**
11 **submittal, right?**

12 A. Correct.

13 **Q. Mr. Gnat, this is -- I can actually**
14 **hand you the rule if you want to read from it,**
15 **but, to your recollection, what is included in a**
16 **construction permit application?**

17 A. Sure. Just, in general, there's a
18 lot of information that is similar to what is
19 required in the operating permit so that it can be
20 a standalone document, but then it also includes
21 some additional items, like the structural
22 stability analysis requirements.

23 It will include the -- requires
24 groundwater -- a numerical groundwater model to be

1 established and the development of alternate
2 engineering evaluations for alternate closure
3 options and that feeds into what the final
4 proposed closure is and then obviously the more
5 detailed closure plan and postclosure plan.

6 **Q. So we talked -- you said you have**
7 **experience with groundwater modeling. Of course**
8 **you're not a groundwater modeler, but from your**
9 **experience what is involved in preparing a**
10 **groundwater model?**

11 A. Sure. The modeling that is required
12 here by the Agency is a three-dimension numerical
13 model. We are working with a groundwater modeling
14 expert. This is all she does. And so, you know,
15 basically it starts out with kind of a feedback
16 back and forth on the hydrogeologic
17 characterization that we're preparing as part of
18 the operating permit, which is establishing the
19 basics for topography of the site and layers and
20 so on which is then used as -- by the groundwater
21 modeler to -- to develop a three-dimensional
22 numerical representation that's topography and
23 then they take all of the water level data,
24 precipitation data from the area, any information

1 on gate station data from the rivers in the area
2 and so on and develop a groundwater flow model and
3 the first thing is to see -- is to calibrate it so
4 that the groundwater flow model is replicating the
5 current groundwater flow conditions that we're
6 seeing at the site.

7 So once that model is calibrated
8 and it's replicating the flow conditions, then
9 they start preparing the attachment, the
10 contaminant transport attachment to that model, be
11 it a MT3D or whichever one they're going to choose
12 and that basically starts defining what's going to
13 be the chemistry of the source that we're going to
14 be using, where is the source going to be placed
15 and so on and all that is prepped to get ready for
16 when the alternatives engineering evaluations are
17 done for closure alternatives or corrective
18 measures alternatives.

19 So that then they can overlay
20 those -- the handful that are selected as the
21 most -- the best alternatives for that site and
22 they start overlaying that on the model and then
23 providing the predictions of over -- you know,
24 long-term how is this going to improve groundwater

1 quality for that particular option and that's all
2 then -- the results of that modeling then is fed
3 back into determining which is going to be the
4 preferred alternative for either corrective
5 measures or closure.

6 **Q. So this modeling, approximately how**
7 **long does it take to create a pretty good model?**

8 A. Yeah, so for these sites and, you
9 know, the modeling world these aren't huge sites,
10 but one of them is, but, you know, generally to
11 develop the base model and get it ready for doing
12 the engineering evaluation overlays you're looking
13 somewhere probably in the order of 400, 400 plus
14 hours per site.

15 **Q. Per site?**

16 A. Mm-hmm.

17 **Q. Okay. Then I think you mentioned**
18 **it.**

19 **So that -- this feeds into a**
20 **closure alternatives analysis, is that what you**
21 **mean?**

22 A. The closure -- yeah, it's all hand
23 in hand and I believe that's one of the intents of
24 IEPA including this requirement is it allows you

1 to take your alternatives evaluations, which
2 include evaluation of long-term and short-term
3 benefits and, you know, a lot of times if you're
4 not doing a numerical model, the long-term
5 benefits are -- they're calculated, you know,
6 using some analytical solutions.

7 I believe that the Agency has
8 this requirement so that you have a little bit of
9 a better evaluation and a more stringent
10 evaluation of that long-term analysis and so you
11 take those engineering -- each engineering option
12 and you overlay it on the model and basically the
13 model predicts how is this engineering change
14 going to affect in five years, in ten years, in 20
15 years, in 50 years the groundwater quality and so
16 each option has to be evaluated separately and
17 then within each option you may have -- you know,
18 let's tweak it a little bit and so on. So each
19 one of those runs probably takes two or three
20 days.

21 **Q. And the alternatives closure**
22 **analysis, what does that involve to create one of**
23 **those?**

24 **A.** That starts out with looking at all

1 possible alternatives out there, but you usually
2 try and get down to four or five options, three to
3 five options, so on, which are probably the
4 most -- make the most sense from an engineering
5 standpoint and feasibility technical
6 constructability standpoint, but then you also
7 need to take a look at within each option, you
8 know, you've got -- one of the options that has to
9 be looked at is complete excavation of the
10 material.

11 But they're various scenarios
12 under that. Complete excavation using trucks.
13 You know, can we bring a rail line in? Can we do
14 barges? So each one of those you have to evaluate
15 different transportation components to it. How
16 can you remove the ash? What is the best way to
17 remove the ash?

18 If it's a small impoundment,
19 sure, you just use a shovel. If it's a large
20 impoundment, you might have to start looking at
21 other, you know, hydraulic dredging alternatives
22 or some other clamshell type things. So there's
23 lots of -- within individual alternatives, there
24 are lots of little technical aspects that also

1 need to be considered.

2 **Q. And also does it require -- what**
3 **kind of engineering does that design require?**

4 A. Well, in order to -- to really
5 maximize what I believe the purpose of the
6 numerical modeling is is to assist in these
7 long-term eval-- short-term/long-term risk
8 evaluations, you really have to -- it can't just
9 be, oh, we want to throw, you know, a cap here and
10 maybe put a couple of extraction wells here or
11 something like that.

12 It has to be a little more well
13 thought because otherwise you're putting garbage
14 into the model and you're going to get garbage
15 out. So our experience is you have to take each
16 option and maybe do up to about a 30 percent
17 design, really kind of think it through and then
18 feed that into the model. Anything short of that
19 you're going through the exercise, you're not
20 truly using it for what it's intended to be.

21 **Q. Right. So the real purpose of a**
22 **closure alternatives analysis, you really need to**
23 **think about what you need to do to make it a**
24 **meaningful analysis, right?**

1 A. Correct.

2 **Q. So how long does that take?**

3 A. That's not a quick process. That's
4 easily, you know, four to six weeks, eight weeks
5 to really think it through and rough out those,
6 you know, three or four or five options that you
7 really want to take a good look at.

8 **Q. And that has to go in the**
9 **construction permit application, correct?**

10 A. Correct.

11 **Q. Finally, doesn't the closure plan**
12 **have to go into the construction permit**
13 **application?**

14 A. Correct.

15 **Q. And what is a closure plan?**

16 A. A closure plan is taking the one
17 that you selected if you're doing this for a
18 corrective measures evaluation, intending to do a
19 corrective measures, what that preferred
20 alternative is or if you're looking at it for
21 actual closure of the pond, what's going to be the
22 preferred closure alternative and then you add
23 additional engineering detail to that above and
24 beyond your 30 percent. It obviously doesn't have

1 to be a one-hundred percent design on the
2 construction application, but certainly --

3 Q. A decent plan?

4 A. A decent plan, correct.

5 Q. And you can't draft the closure plan
6 before the alternatives analysis, right?

7 A. Correct.

8 Q. All right. Because otherwise you
9 just -- otherwise, you're just making up an
10 analysis for no good reason?

11 A. Correct.

12 Q. So it's a -- it's a -- I don't know
13 if I'm using this word correctly. Forgive me for
14 those that know.

15 It's an iterative process,
16 right, the groundwater modeling feeds into the
17 alternatives analysis which determines what the
18 closure plan is, isn't that correct?

19 A. That is correct.

20 Q. Okay. And guesstimating, do you
21 have an estimate of how many hours it would take
22 to prepare an actual, good, closure plan?

23 A. Considering you've already got, say,
24 up to about a 30 percent design on that, to then

1 once you identify what you believe you want to be
2 in your closure plan, to take that next step
3 that's probably going to be another three or four
4 weeks of time to get enough additional detail into
5 that for it to be presentable in the plan.

6 Q. And all of this depends -- you know,
7 is really assuming that nothing goes wrong, isn't
8 that correct?

9 A. That's correct.

10 Q. Including having a pandemic, right?

11 A. Correct.

12 Q. Okay. I want to turn to -- and, of
13 course, Mr. Gnat, while you're using this time to
14 conduct all of this work for the construction
15 permit applications, you're working on other
16 requirements under the Illinois CCR rule, correct?

17 A. Correct.

18 Q. So I want to turn to the Board
19 Question 6 and for clarity I'll just read it.

20 In response to Agency's
21 recommendation that the Board deny the requested
22 extension of the deadline to file the construction
23 permit, Midwest Gen states "No harm will be caused
24 by granting Midwest Gen the same time other

1 Category 5 CCR surface impoundments are granted to
2 prepare a complete and accurate construction
3 permit application." Citing Midwest Gen response
4 at 2.

5 The Board asks "Please clarify
6 whether causation of harm, quote, unquote, in the
7 above statement refers to any adverse
8 environmental impact due to the extension of the
9 deadline to submit the construction permit
10 application by four months."

11 So, Mr. Gnat, I'll ask you to
12 please answer that question, what -- whether
13 causation of harm refers to any adverse impact, do
14 you think there will be harm and what harm will be
15 involved?

16 A. When I think -- when I read that
17 question or saw that question, you know, first
18 thing I think is there any imminent threat to
19 human health and the environment that would cause
20 if we extended this deadline and quite honestly
21 these impoundments are on property, controlled
22 access, they're no receptors down-gradient. I do
23 not see any imminent threat to human health or the
24 environment if we have an extension to a deadline

1 here. We're not asking for a huge amount of time.

2 Q. Then B, EPA's recommendation
3 indicates an exceedance of -- excuse me.

4 EPA's recommendation indicates
5 exceedances of Class 1 groundwater quality
6 standards for sulfate and TDS in certain
7 monitoring wells at the facility. Recommendation
8 at 14.

9 Please comment on the
10 implications of extending the deadline for
11 submitting a construction permit application on
12 mitigating potential groundwater impacts. And, I
13 believe, Mr. Gnat, you looked at those wells that
14 the Agency referred to and what is your opinion
15 about that?

16 A. Well, I believe there were two
17 specific parameters that were identified.

18 Q. TDS and sulfate?

19 A. TDS and sulfate by Illinois EPA. So
20 Well 15 that is a down-gradient well for the ash
21 surge basin, but it's also an up-gradient well for
22 the metals cleaning basin. In that it's part of
23 the ash surge basin, we do have total metals data,
24 the federal rule Appendix 3, Appendix 4, which is

1 the same as 845.600.

2 So we do have those data. Well
3 14 doesn't have that data. We're just starting to
4 develop that background dataset for Well 14. So
5 if you want to compare a totals dataset to a
6 dissolved dataset, you can't do that statistically
7 with any fairness. It's not going to be
8 representative statistically, but even taking a
9 look at it the distributions that we're seeing and
10 what we're seeing in down-gradient Well 14 there
11 are some exceedances of the Class 1 standard, but
12 they're also exceedances in the up-gradient well.

13 So the question is the
14 groundwater protection standard is going to end up
15 being the higher of either the statistical
16 background, which would be calculated off of Well
17 15 or the Class 1 drinking water standard. And
18 just quickly looking at the numbers that -- that
19 we have available, I don't think a determination
20 can be made where we're going to end up with that.

21 Especially considering the two
22 ones that were suggested, the sulfate and total
23 dissolved solids, I believe those are not
24 health-based standards. Those are secondary

1 drinking water standards that affect palpability,
2 smell of the water, whatnot. It's not a
3 health-based standard and we have no down-gradient
4 receptors. So, again, I don't see the harm of
5 requesting the extension at this point.

6 MS. GALE: Does that answer your
7 question?

8 MR. RAO: Yes.

9 MS. GALE: Thank you. Mr. Gnat, I
10 believe that's the end of my questions for you.
11 There is -- Question 7 it calls for a legal
12 conclusion. So I intended upon answering it
13 myself after Mr. Gnat was finished. And then I
14 have a couple other cleanups that I was going to
15 do, but he's ready for cross-examination if
16 there's any.

17 MS. ZEIVEL: Just a few questions,
18 Mr. Gnat.

19 C R O S S E X A M I N A T I O N

20 BY MS. ZEIVEL:

21 Q. This is the first alternate source
22 demonstration I've personally reviewed. I've
23 talked about it in rulemakings, but I haven't seen
24 one myself. I see that you utilized the LEAF

1 **test --**

2 A. Correct.

3 Q. -- to gather composite samples it
4 seemed like throughout the basin.

5 Can you clarify how deep those
6 samples were or at what depth those samples were
7 taken as part of that test?

8 A. Sure. It's been a while ago. I
9 believe the way we usually approach it is divide
10 the basin into quadrants or sections and then
11 within each section take one or two areas where we
12 dig down a foot or two and take that sample and
13 then we start compositing into one sample.

14 We try to do it across the basin
15 from where the water comes in versus where the
16 discharge on the basin is just for -- you're going
17 to have some higher coarse fractions where it
18 first comes in and more fines at the back end. So
19 we're trying to get a representative sample across
20 the basin.

21 Q. So is that one or two feet down from
22 the surface --

23 A. Correct.

24 Q. -- of the water?

1 A. Yes.

2 **Q. So are any samples as part of this**
3 **leachate collection sampling method, are any**
4 **samples taken deeper in the impoundment?**

5 A. No, we did not for these studies.
6 No.

7 **Q. And CCR surface impoundments where**
8 **the CCR material tends to accumulate at the bottom**
9 **of the basin as sediments or other material, would**
10 **the concentrations of CCR -- the parameters**
11 **associated with CCR material tend to be higher at**
12 **the bottom of the basin versus the top of the**
13 **basin?**

14 A. That's -- that's a good question.
15 I -- I would not think -- these -- these basins
16 don't store ash for extended periods of time. I
17 believe every one or two years they're cleaned out
18 and fresh ash comes in.

19 The method that's generating the
20 ash is staying the same. It's still the same
21 boiler systems or burning systems. The source of
22 the ash is the same and so on. So the ash -- the
23 fresh ash that is at the top should be similar to
24 what the ash is at the bottom of the -- of the

1 impoundment. I do not see from a totals analysis
2 that you're going to see much difference and that
3 totals is what you're really leaching out in the
4 LEAF test.

5 So I do not -- I don't have data
6 that shows different, but I would not anticipate
7 that I would see much difference. It's the same
8 ash that's sitting at the top as is in the bottom.

9 **Q. So is that kind of intermittent**
10 **usage or location of CCR within the basins, that's**
11 **true of all the CCR surface impoundments,**
12 **including the ash surge basin where there isn't**
13 **CCR in the material or in the basin very often?**

14 A. That's -- that's a very long -- you
15 know, my understanding is that these basins are
16 cleaned out on a fairly regular basis and fresh
17 ash is introduced. So it's not -- my
18 understanding it's not sitting there five or ten
19 years.

20 **Q. So are the samples taken for the**
21 **LEAF test, are those samples taken while there's**
22 **CCR in the basin just prior to dredging or just**
23 **following a dredging? I mean, do you choose the**
24 **time at which you take these LEAF method samples**

1 to ensure that you're getting the -- most likely
2 to get CCR material or results from those samples
3 you've completed?

4 A. The timing of that sample is really
5 kind of regulatory-driven. We're addressing a
6 potential increase in groundwater concentration
7 above a standard calculated comparison value. So,
8 you know, the reason we went out there and
9 collected it was as part of an alternate source
10 demonstration which was triggered by groundwater
11 events.

12 So it wasn't planned, you know,
13 hey, next time you guys are dredging a thing we're
14 going to come out and collect some samples. This
15 was very much regulatory-driven and we had a
16 timeframe and in the federal rule we have 90 days
17 to do the ASD and under the state rule we're going
18 to have 60 days.

19 Q. I understand. So you're saying you
20 take the sample based on the timelines and
21 deadlines you have to meet regardless of where
22 Midwest Generation might be in its storage --
23 temporary or not storage of the material?

24 A. Correct.

1 **Q.** **Would you generally note that in**
2 **your alternate source demonstration, you know,**
3 **whether there's CCR material in the impoundment at**
4 **the time or at what point in the cycle just for,**
5 **you know, informational purposes is that included**
6 **as part of any of your evaluation?**

7 A. No, it's not and, you know, again, I
8 guess I would go back if I collect a CCR sample at
9 the time A it's the same process that's generating
10 the ash and the ash is being placed in this
11 impoundment.

12 I'm not -- and I'm collecting a
13 representative sample from across trying to get
14 the coarse fraction and the fine fraction and the
15 stuff in between. That -- that ash from time A
16 and time B should be the same -- same ash, same
17 chemistry.

18 **Q.** **By same ash, you mean produced as a**
19 **result of the same process, but not necessarily**
20 **the same physical ash?**

21 A. Correct. It's the same source that
22 they're getting the coal from that they're
23 burning, the same process of burning the coal
24 generating the ash, the same process of getting

1 the ash into that impoundment.

2 Q. Was this alternate source
3 demonstration that was attached to Midwest Gen's
4 response, was that submitted to the U.S. EPA as
5 part of the Federal 257 Program?

6 A. I believe it's posted and it's
7 included as part of the annual report, but the
8 federal program is self-implementing. So it's not
9 something that you formally submit, I don't
10 believe, to U.S. EPA. It's posted up and it's
11 included as part of the annual report.

12 Q. So as far as you're aware, there is
13 no review and approval of these alternate source
14 demonstrations by U.S. EPA under the 257 program?

15 A. Correct.

16 Q. And I think Ms. Gale said she was
17 going to talk about the Board question regarding
18 redesignation of an impoundment for categories
19 later on, but I have -- I'm just curious if you
20 have any information or insight to share about
21 whether in terms of since you are the one that is
22 helping complete these and prepare these
23 applications, if Midwest Gen were to choose a
24 Category 5 just conservatively, not based on any

1 hard data evidence stating there are exceedances,
2 but to be conservative and choose Category 5 and
3 start along that schedule and then later data were
4 to show, no, based on statistics and background
5 there are no exceedances, what kind of hardship
6 would that cause your team or Midwest Generation
7 to be on a shorter timeline and then end up
8 having -- getting additional time by somehow
9 redesignating?

10 A. The shorter time, you know, you're
11 correct. We would have to start the process so
12 that if, in fact, the state would stay that
13 Category 5, that we're meeting all the deadlines,
14 but I think part of that designation, too,
15 determines as to what -- how those alternative
16 evaluations are going to be done, what the final
17 conclusions of those are going to be, how are you
18 going to overlay them into -- there's a lot of
19 reverberation that happens when you start with --
20 let's assume we've got to go through an entire
21 corrective measures and start proceeding down that
22 path and then halfway through, oh, no, we really
23 don't need to.

24 I mean, that does reverberate

1 and the document you're doing you may have been
2 doing some work that you aren't necessarily going
3 to need to complete at this time. Now, is that --
4 you know, could that work that was done be used
5 sometimes perhaps in the future? Perhaps. I
6 don't know. But I'm sure there's going to be
7 some -- some wheel spinning that occurs that
8 doesn't necessarily need to occur.

9 Q. Thank you. I was not attempting to
10 call for speculation, but I did want to know what
11 those reverberations are because I believe you
12 would probably understand that better than most
13 here. So I appreciate your testimony.

14 I believe you said that Midwest
15 Generation has four Category 3 CCR surface
16 impoundments and a Category 3 -- Category's 1, 2,
17 3 and 4 all have construction permit application
18 due dates of February 1st.

19 I believe you testified, and
20 please correct me if I'm wrong, your understanding
21 and the Agency's understanding is that you need 60
22 days ahead of that timeline to fulfill the public
23 notice requirements, do you know when the initial
24 operating permit applications are due for

1 **inactive, existing -- inactive and existing CCR**
2 **surface impoundments?**

3 A. I believe those are due October, end
4 of October.

5 Q. **Regardless of what category you are?**

6 A. Correct.

7 Q. **So do your -- does Midwest**
8 **Generation's four Category 3 surface impoundments,**
9 **it sounds to me from your testimony, would have**
10 **one month from the time their operating permit**
11 **application is completed until the applicable**
12 **notice requirements -- a draft construction permit**
13 **application would have to be completed for**
14 **purposes of complying with the public notice**
15 **requirements?**

16 A. Correct.

17 Q. **Has -- to your knowledge, has**
18 **Midwest Generation sought variances for any of**
19 **those Category 3 impoundments for which February 1**
20 **construction permit applications are due?**

21 A. Not to my knowledge.

22 MS. ZEIVEL: That's all the
23 questions I have at this time.

24 HEARING OFFICER WEBB: Do you want

1 to do --

2 R E D I R E C T E X A M I N A T I O N

3 BY MS. GALE:

4 Q. Back on that question. Those four
5 units that are Category 3, they're federal CCR
6 surface impoundments, aren't they?

7 A. They are.

8 Q. So they have background information
9 from I think we started in 2016, isn't that right?

10 A. That's correct.

11 Q. And we have all the infor- -- you
12 know, we have groundwater data, correct?

13 A. Yes.

14 Q. We have sampling data from the
15 impoundments, correct?

16 A. Correct.

17 Q. We have a lot of the historical
18 documentation all collected from all of those
19 impoundments, isn't that correct?

20 A. Correct.

21 Q. We don't have that information for
22 the metal cleaning basin, do we?

23 A. No, we don't.

24 Q. And I believe she asked you about

1 the harm and I said I would be answering No. 7,
2 but I want to go back to that. You kind of said
3 it.

4 But if it was labeled as a
5 Category 5 now even with incomplete data and we
6 have new data that changes, wouldn't we be
7 duplicating some of the work later? Like, we have
8 something change, wouldn't we have to change some
9 of the information we put in, right, inputs would
10 change, correct?

11 A. Sure. I mean, if you're taking a
12 guess on an incomplete dataset and that guess
13 changes because the dataset comes in and changes
14 it, you're -- I mean, it's triggering -- if you
15 make a decision, it's triggering certain things.

16 So if then that changes, it may
17 have, you know, a different consequence of what
18 you're looking at or what you're evaluating how
19 you're going to look at it.

20 Q. And we have -- now, we have an
21 incomplete dataset.

22 So we can't feed that into our
23 groundwater model yet, correct?

24 A. Correct.

1 **Q. And since we can't feed it into our**
2 **groundwater model yet, we can't start an**
3 **alternatives analysis yet?**

4 A. Those -- the alternatives evaluation
5 needs that dataset or those calculations to be
6 completed to be able to complete your engineering
7 evaluation. So there are certain things that you
8 can do ahead of time, but in order for it to be
9 completed you need to wait for that and then once
10 that gets completed and in the meantime you've
11 done all the modeling stuff that you can do to cue
12 up the model to be ready to receive the
13 engineering input, so it's kind of one builds on
14 top of the other.

15 So as you put all your pieces in
16 place, if you decide that one of the pieces you
17 put in place is in the wrong place because you
18 took a guess, they move that and then that
19 reverberates across the Board.

20 **Q. Right. And by comparison, the**
21 **Category 3 ponds, which are federal CCR surface**
22 **impoundments, we have that data already, right?**

23 A. That's correct.

24 **Q. So we can start working on that**

1 **information now, correct?**

2 A. That's right.

3 Q. **It's not just one month, we have a**
4 **few months. You're working on it presently,**
5 **aren't you?**

6 A. Correct.

7 MS. GALE: That's it.

8 R E C R O S S E X A M I N A T I O N

9 BY MS. ZEIVEL:

10 Q. **For all these impoundments --**
11 **impoundments that Midwest Generation considers**
12 **federal impoundments under 257, have you**
13 **categorized those other impoundments at the**
14 **Powerton station?**

15 A. We were involved in some of that
16 work, yes.

17 Q. **To your knowledge, have those been**
18 **submitted to the Agency?**

19 MS. GALE: Yes.

20 BY THE WITNESS:

21 A. Yes.

22 BY MS. ZEIVEL:

23 Q. **Just one moment.**

24 HEARING OFFICER WEBB: Sure.

1 BY MS. ZEIVEL:

2 Q. You testified earlier about -- you
3 testified earlier about your statistical approach
4 that in certain instances rather than before
5 choosing a method necessarily you can choose a
6 statistical approach or procedures that you will
7 follow, is that something, if required, that could
8 be included?

9 Do you ever include those
10 statistical approaches or descriptions of those
11 approaches in permit applications? I mean, is
12 that part of the overall description of how you
13 are going to move forward with your statistical
14 analysis?

15 A. Yes, that -- we will have an
16 appendix to the application, which will be our
17 proposed statistical evaluation approach similar
18 to what we've developed already for the federal
19 rule.

20 There are some tweaks that need
21 to be done to that to meet the state requirements
22 and that basically spells out, you know, this is
23 going to be our overall approach on how we're
24 going to do it, but then once you get the data

1 then you decide within that plan, you know, which
2 avenue you're going to go down, but that is
3 certainly a requirement I believe of the Illinois
4 operating permit as well and that will be
5 included, yes.

6 **Q. Okay. So my understanding is that**
7 **in your mind there is a difference between the**
8 **statistical procedures or approach that you will**
9 **utilize as then the statistic method that's**
10 **actually chosen that you will end up utilizing?**

11 **A. Correct. So the plan basically**
12 **identifies, you know, different aspects. So if**
13 **all of a sudden you're looking at a dataset which**
14 **is greater than 50, 60 percent non-detects,**
15 **there's a different way you're going to have to**
16 **look at it statistically then if you've got 30**
17 **percent non-detects or if you have no non-detects.**

18 **If your distribution that you**
19 **look at is -- is not a normal distribution and**
20 **then you look at all the potential underlying**
21 **distributions as to log normal distribution, if**
22 **none of those are normal, what are you going to**
23 **do? It's going to have to be analyzed as a**
24 **non-parametric. So what -- how are you going to**

1 look at it then?

2 So that plan kind of has all the
3 kind of what-if scenarios and provides the path
4 for that and then you don't know which of that
5 path you're going to take until you actually get
6 the dataset. Once you look at your dataset, you
7 can say, "Okay. Within my plan, this is what I'm
8 proposing to do."

9 And if you come up with
10 something that's going to be completed out of the
11 ordinary, then we're going to have to have some
12 discussions. There has to be some -- I mean, if
13 there's truly something quirky in the data and
14 some very rigorous analysis of variance needs to
15 be done, you need to have a real statistical
16 expert to do a truly meaningful analysis of
17 variance. I'm certainly not qualified to do that.

18 So there's lots of aspects that
19 can happen. That hasn't happened to date yet for
20 something like that, but the plan will identify,
21 you know, kind of the avenues that you believe you
22 want to have available for yourself and when the
23 data comes in then you decide which road you're
24 going down.

1 Q. The Agency's recommendation stated
2 and the Board had, I think, restated it in its
3 questions, but, you know, the Agency's
4 interpretation of the operating permit
5 requirements being a proposed groundwater
6 monitoring system if we were to go with that train
7 of thought it is a proposed groundwater monitoring
8 system what I'm hearing is that it seems the
9 statistical procedures or approach that you will
10 utilize as part of a proposed groundwater
11 monitoring system that those things would go hand
12 in hand in proposing your overall monitoring
13 system and how you're going to conduct your
14 analysis.

15 A. Mm-hmm.

16 Q. Do you agree that a proposed
17 groundwater monitoring system with a corresponding
18 proposed statistical approach or analysis would be
19 an appropriate thing to include in an initial
20 operating permit application?

21 A. I believe that is what's required,
22 correct, yes.

23 Q. Thank you.

24 MS. GALE: But -- I'm sorry.

1 MS. ZEIVEL: I just have, I think,
2 one more line of questioning before we move on.

3 BY MS. ZEIVEL:

4 Q. Are water levels, groundwater levels
5 or surface water levels, needed for a model in
6 order to conduct the necessary modeling of the
7 monitoring wells?

8 A. Yes, the groundwater model that is
9 being developed is -- the modeler has access to
10 all of our groundwater level elevations and, you
11 know, any gate stations from the area for the
12 rivers and so on, yes.

13 Q. Can a transport model be calibrated
14 to dissolved analyses?

15 A. Sure, it can be calibrated to
16 dissolved analyses. It depends on what your
17 inputs are, but it certainly can be calibrated to
18 dissolved analyses.

19 MS. ZEIVEL: That's all for me.
20 Thank you.

21 FURTHER EXAMINATION

22 BY MS. GALE:

23 Q. I just want to clarify her final
24 question about a proposed statistical method and

1 you said "I believe that's what the rule
2 requires."

3 When you're saying it's
4 proposed, it's being proposed to the Agency,
5 right?

6 A. Correct.

7 Q. What has to be, though, in that
8 method, that proposed statistical method?

9 A. The rule provides the guidance that
10 needs to meet the unified guidance and the
11 requirements in the rule which, I believe,
12 parallel the federal rule for statistical
13 evaluations, specific criteria that need to be
14 met.

15 So, you know, what we basically
16 have, and my understanding is in what we're going
17 to be providing is a proposed groundwater
18 monitoring network, a proposed statistical
19 approach, and based on that proposed statistical
20 approach we're going to be doing our calculations
21 for the eight background samples and develop the
22 background statistic and then also the -- based on
23 that in comparison to the standards in our 845.600
24 the proposed groundwater protection standard and

1 that's all part of the permit here. This is what
2 we're proposing, the method, this, that.

3 Now, upon the review of the
4 Agency, it could well be the IEPA may say, yeah,
5 we agree with this, this sounds good and we agree
6 with the standards the way they were calculated.
7 They could also come back and say, you know what,
8 we think you need another monitoring well here and
9 we don't agree with that. So you need to change
10 up the statistical calculation. I mean, that can
11 occur as well and that's part of the review
12 process for the permit.

13 **Q. But the rule requires, and I'm**
14 **looking at 640(f)(3) the statistical method**
15 **chosen, doesn't it?**

16 A. Right. And so when we -- what we'll
17 have -- this is kind of the plan we're using for
18 our approach and when we present the calculated --
19 the groundwater protection standards we will
20 have -- say to get to our background statistic
21 this is what we used.

22 **Q. And to do that, you needed the**
23 **groundwater monitoring results, right?**

24 A. Correct.

1 MS. GALE: Thank you. I have
2 nothing further.

3 HEARING OFFICER WEBB: Okay.

4 MS. ZEIVEL: None from the Agency.

5 MS. GALE: I'm sorry. What did you
6 say?

7 MS. ZEIVEL: I said nothing from the
8 Agency right now.

9 HEARING OFFICER WEBB: All right.
10 Thank you, sir.

11 MS. GALE: Thank you.

12 HEARING OFFICER WEBB: Does
13 petitioner have anything more to present?

14 MS. GALE: Yes, I have a few more
15 answers to the -- excuse me -- to the Board's
16 questions. I have -- in answer to 8C, I have the
17 testimony which will be Petitioner's Hearing
18 Exhibit U that they requested. You guys have
19 this, right?

20 (Document marked as Petitioner's
21 Exhibit No. U for
22 identification.)

23 MS. ZEIVEL: Yes.

24 MS. GALE: And then for the record

1 what that is is the Illinois EPA's filed answers
2 that were filed in the CCR rulemaking on August 3,
3 2022. That was a pretty extensive answer. So I
4 only did an excerpt. It's the cover page and then
5 Page 157.

6 THE COURT REPORTER: Did you say
7 2022?

8 MS. GALE: I did say that. I meant
9 2020. August 8th, 2020. And then I also have
10 answer to Board Question 7. And I was planning on
11 reading it into the record, but I won't waste our
12 time or Steve's fingers. And I apologize for
13 being on my phone, but we didn't have a printer
14 yesterday.

15 So in response to the Board's
16 questions, Midwest Generation contends that while
17 the rule may allow Midwest Gen to redesignate the
18 metal cleaning basin as a Category 7 if new data
19 supports that it is unreasonable to require
20 Midwest Gen to make a designation of Category 5
21 before we have any CCR groundwater data.

22 A designation of Category 5 now
23 would have significant adverse effect on Midwest
24 Gen without any benefit to the environment and

1 would not hasten the closure or retrofitting of
2 the metal cleaning basin.

3 As we heard Mr. Gnat testify,
4 Midwest Generation is currently preparing five
5 operating permit applications for nine CCR surface
6 impoundments for submittal by October 31, 2021.

7 At the same time, Midwest Generation is also
8 preparing construction permit applications for
9 four surface impoundments that are Category 3
10 which means they're in EJ areas, excuse me,
11 environmental justice areas so that they're ready
12 at the latest by December 1, 2021.

13 We heard from Mr. Gnat that
14 preparing these construction permit applications
15 is a large endeavor and has a domino effect. I
16 mean, the fact that this exercise builds upon
17 itself. You first have to develop the groundwater
18 data, including establishing the background data
19 and the groundwater protection standards.

20 Based upon that, you create the
21 groundwater model which relies upon that data and
22 you then also have to conduct an alternatives
23 closures analysis which includes an evaluation of
24 best closure method and that valuation is based in

1 part upon the groundwater monitoring data and the
2 modeling which demonstrates what closure analysis
3 would be best to get to the groundwater protection
4 standards as soon as possible.

5 Finally, you have to prepare a
6 closure plan and a postclosure plan, which depends
7 upon the results of the alternatives analysis
8 which depends upon the modeling. If the metal
9 cleaning basin is designated as a Category 5 now,
10 before we have that information Midwest Gen will
11 have to begin working on the construction permit
12 application now with incomplete information,
13 meaning Midwest Generation will likely create data
14 and information that will have to be revised later
15 and one change, as Mr. Gnat said, one change in
16 the groundwater evaluation will affect the model,
17 which affects the alternatives source analysis and
18 can ultimately affect the closure plan.

19 Ultimately, Midwest Gen could be
20 doing work that did not need to be done and could
21 duplicate work later on. All -- again, getting to
22 really what we're asking for here, Midwest
23 Generation is asking for relief -- is not asking
24 for any relief from any technical requirements or

1 any technical evaluations as Midwest Generation is
2 already working at 110 percent to comply with the
3 various requirements of the CCR rule for all of
4 its CCR surface impoundments.

5 All we're asking for here is a
6 little more time and Midwest Gen contends the
7 better way is to allow the data to be developed so
8 it can submit an accurate category designation.
9 That's our answer to No. 7.

10 HEARING OFFICER WEBB: Are you going
11 to file that as part of your post-hearing brief or
12 what do you want?

13 MS. GALE: Why don't -- we'll just
14 put that as, I guess, an attachment. I haven't
15 printed it up here. We can just attach it to the
16 post-hearing brief.

17 HEARING OFFICER WEBB: Okay.
18 Because it was argument.

19 MS. GALE: It was argument. That's
20 part of the reason why I didn't really want a
21 witness to testify to it.

22 HEARING OFFICER WEBB: Okay.

23 MS. GALE: And we can include all
24 that in the post-hearing brief. I also wanted to

1 make sure that we move all of the exhibits that
2 were attached to the petition and attached to the
3 response into evidence. I don't think there's any
4 objection, but I just want to make that for the
5 record.

6 MS. ZEIVEL: There's no objection.
7 I don't know that we need to do that.

8 HEARING OFFICER WEBB: I'll dot the
9 i's and cross the t's. They're part of the
10 record, but I guess they're not technically
11 admitted as -- you know, into evidence as hearing
12 exhibits, but, yeah, we can do that.

13 MS. GALE: I like t's crossed and
14 i's dotted.

15 HEARING OFFICER WEBB: Okay.

16 MS. GALE: And, in part, because --
17 and I didn't think this was right, the Agency did
18 all their background on their -- on their
19 affidavits.

20 HEARING OFFICER WEBB: Okay. So
21 Exhibit -- Exhibits A through --

22 MS. GALE: R.

23 HEARING OFFICER WEBB: -- R are
24 admitted, okay, and as well as today we did S, T

1 and I don't think I officially admitted Exhibit U.

2 MS. GALE: Yes, I move for Exhibit
3 U.

4 MS. ZEIVEL: Can we make sure to
5 clarify those as petitioner's hearing exhibits
6 because the Agency also used letters.

7 HEARING OFFICER WEBB: Okay. Thank
8 you.

9 MS. ZEIVEL: So --

10 HEARING OFFICER WEBB: Okay.

11 MS. GALE: Sorry.

12 HEARING OFFICER WEBB: Do you have
13 anything more that you would like to present
14 today?

15 MS. GALE: No.

16 HEARING OFFICER WEBB: Okay. Would
17 you like to take a five-minute recess?

18 MS. ZEIVEL: Yes, please.

19 MS. GALE: Yes.

20 HEARING OFFICER WEBB: Let's do
21 that. We're off the record.

22 (Whereupon, a break was taken
23 after which the following
24 proceedings were had.)

1 HEARING OFFICER WEBB: All right.
2 Let's go back on the record and we will pick up
3 with the Agency's first witness.

4 MS. ZEIVEL: Yes, the Agency calls
5 Darin LeCrone.

6 HEARING OFFICER WEBB: Okay. Would
7 the court reporter please swear in the witness.

8 WHEREUPON:

9 DARIN LECRONE
10 called as a witness herein, having been first duly
11 sworn, deposeth and saith as follow:

12 D I R E C T E X A M I N A T I O N

13 BY MS. ZEIVEL:

14 Q. Mr. LeCrone, can you state your name
15 for the record and spell your last name, please.

16 A. It's Darin LeCrone, L-e-C-r-o-n-e.

17 Q. And can you state your employer and
18 your position?

19 A. Yeah, I'm currently the permit
20 section manager for the Illinois EPA Division of
21 Water Pollution Control. During the rulemaking, I
22 was the industrial unit manager for the Agency
23 also.

24 Q. Congratulations on your promotion.

1 A. Thank you.

2 Q. Did you sign an affidavit that was
3 filed with the Agency's recommendation?

4 A. I did, yes.

5 Q. Have you recently reviewed that
6 affidavit?

7 A. I did.

8 Q. To your knowledge, is the facts
9 attested to in that affidavit still true today?

10 A. To the best of my knowledge, yes.

11 MS. ZEIVEL: The Agency doesn't have
12 any new testimony for this witness, but offers
13 Mr. LeCrone to answer any questions that Midwest
14 Generation or the Board may have for him.

15 HEARING OFFICER WEBB: Okay.

16 Ms. Gale, do you have any questions for this
17 witness?

18 MS. GALE: I just have a few
19 questions, just a few questions. It's just about
20 the permit applications.

21 C R O S S E X A M I N A T I O N

22 BY MS. GALE:

23 Q. Congratulations on your promotion --

24 A. Thank you.

1 **Q. -- to manager. So, to clarify,**
2 **you'll be managing the permit review and issuance**
3 **or disapproval of the operating and construction**
4 **permits for the Illinois CCR rule?**

5 A. Yeah, I will be the one signing the
6 final permits, yeah, and my staff will be
7 responsible along with the groundwater section
8 staff. It will be kind of a joint effort.

9 **Q. Sure.**

10 A. But the permits will all be signed
11 by me.

12 **Q. And the operating permit**
13 **applications for the permits are due on October**
14 **31st, 2021, correct?**

15 A. Correct.

16 **Q. And I believe, but to confirm,**
17 **you're expecting one application for an entire**
18 **station for an operating permit application?**

19 A. That would be preferable. Does it
20 necessarily have to be done that way? It could --
21 you know, it's kind of up to each site owner
22 whether they want to include one application for
23 all their impoundments or depending on -- on their
24 preference at least for the initial operating

1 permit they could file separate applications. I
2 would prefer one, but I don't believe there's
3 anything in the rule that states it has to be one
4 way or the other.

5 Q. Okay. I want to hand you
6 Petitioner's Exhibit V.

7 (Document marked as Petitioner's
8 Exhibit No. V for
9 identification.)

10 BY MS. GALE:

11 Q. So the Agency -- this is a list that
12 the Agency prepared during the Illinois -- the
13 rulemaking and was filed on August 3, 2020,
14 correct? It's a list of CCR surface impoundments.

15 A. Yes.

16 Q. And I don't have the cover letter
17 here -- the cover page, but it is actually --
18 would be a part of Petitioner's Exhibit U. I just
19 kept it separate for simplicity reasons.

20 It was part of the Illinois
21 EPA's answers to questions during the rulemaking,
22 right?

23 A. I believe it was, yes.

24 Q. And this has -- this is a list of

1 all of the CCR -- excuse me -- CCR surface
2 impoundments the Agency has identified, correct?

3 A. That's my understanding, correct.

4 Q. Okay. So -- and you have it broken
5 down by station thereabouts. I mean, it's kind of
6 bolded, but you can kind of see where each station
7 is bolded and where the surface impoundments are
8 identified within each station, right?

9 A. Correct.

10 Q. So let's assume for simplicity sake
11 that each station submits one application -- one
12 operating permit application.

13 You would expect approximately
14 20 applications to come in October 31st?

15 A. Yes.

16 Q. And assuming that they're doing one
17 application for their entire unit, many of the
18 applications will include multiple CCR surface
19 impoundments, correct?

20 A. Correct.

21 Q. And as we heard from Mr. Gnat, each
22 of these applications was going to include
23 numerous technical reports and information, right?

24 A. Correct.

1 **Q. In fact, which we discussed**
2 **significantly, the groundwater monitoring program,**
3 **correct, which establishes the background quality**
4 **for each CCR surface impoundment?**

5 A. Yes, that was part of it and it will
6 be -- there will be a lot of information in each
7 application, yeah.

8 **Q. And the Agency is going to**
9 **thoroughly review each application, correct?**

10 A. To the best of our abilities,
11 correct.

12 **Q. And that will take some time, won't**
13 **you agree?**

14 A. It will, yes.

15 **Q. And actually it can also involve**
16 **some follow-up with the applicants for, like,**
17 **additional questions, right?**

18 A. Most -- most applications do.
19 They're generally questions, follow-up
20 clarification that we need. We're usually in
21 communication with applicants during the process.

22 **Q. Sure. And in the Illinois rule,**
23 **Illinois CCR rule, excuse me, there's no deadline**
24 **for the Agency to grant or deny an application?**

1 A. No.

2 Q. I'm sorry. I didn't hear you.

3 A. No, I don't believe so.

4 Q. Thank you. Similarly, the
5 construction permit application for the CCR
6 surface impoundments for Category's 1, 2, 3 and 4
7 are due on February 1st, 2022, correct?

8 A. I believe that's correct.

9 Q. I can get out the rule, but I think
10 we're all right here.

11 A. Yes, I think so.

12 Q. Just going off of Petitioner's
13 Exhibit X on Column I there's about -- which
14 Column I is the area of EJ concern, there's about
15 at least eight applications that will be Category
16 3, could you agree with that?

17 A. That looks like that's probably
18 correct, yes.

19 Q. So on February 1st, 2022, you'll get
20 at least eight construction permit applications
21 presumably?

22 A. It appears so, yes.

23 Q. You could get more, though?

24 A. We could get more.

1 Q. Right. And these applications will
2 contain even more information, isn't that correct?

3 A. That is correct.

4 Q. They will have the model, which will
5 be significant, right?

6 A. Yes.

7 Q. And a pretty robust closure plan,
8 right?

9 A. Correct.

10 Q. And a pretty robust alternatives
11 closure analysis, right?

12 A. Correct.

13 Q. And, similarly, the Agency will
14 thoroughly review each of these applications,
15 right?

16 A. Yes.

17 Q. And there's no deadline for the
18 Agency to issue or --

19 A. Correct.

20 Q. -- deny a construction --

21 A. The --

22 Q. -- permit application?

23 A. Deadlines are on submittal of the
24 applications, not on final decisions.

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Q. Great.

MS. GALE: I move to admit
Petitioner's Exhibit V and I have no further
questions of this witness.

HEARING OFFICER WEBB: This was an
Agency-created list, you said?

MS. GALE: This was an
Agency-created list attached to -- it was actually
attached to Illinois EPA's pre-filed answers that
they filed on August 3rd, 2020.

HEARING OFFICER WEBB: Thank you.
Exhibit V is admitted. Nothing else?

MS. GALE: Nothing further.

HEARING OFFICER WEBB: Anything?

MS. ZEIVEL: Nothing from the
Agency.

HEARING OFFICER WEBB: Mr. Rao,
anything from the Board? Thank you, sir.

THE WITNESS: What do I do with
that?

MS. GALE: Frame it.

THE WITNESS: Frame it.

MS. GALE: Or I can take it back.

HEARING OFFICER WEBB: Ms. Zeivel,

1 you may call your next witness.

2 MS. ZEIVEL: The Agency calls Lynn
3 Dunaway.

4 HEARING OFFICER WEBB: Would the
5 court reporter please swear in the witness.

6 WHEREUPON:

7 LYNN DUNAWAY
8 called as a witness herein, having been first duly
9 sworn, deposeth and saith as follows:

10 D I R E C T E X A M I N A T I O N

11 BY MS. ZEIVEL:

12 Q. Mr. Dunaway, can you state your name
13 and spell your last name for the record, please.

14 A. My name is Lynn Dunaway,
15 D-u-n-a-w-a-y.

16 Q. Can you state your employer and your
17 position?

18 A. I work for the Illinois
19 Environmental Protection Agency. I'm an
20 Environmental Protection Specialist IV in the
21 Bureau of Water Groundwater Section.

22 Q. How long have you been with the
23 groundwater section?

24 A. A little over 33 years.

1 Q. There's been a lot of conversation
2 about the operating permit application and the
3 groundwater monitoring system that needs to be
4 provided as part of that application, as well as
5 implications for that to the construction permit
6 applications, the Agency's recommendation has put
7 forth its interpretation of the operating permit
8 application requirements and I'm just going to
9 very briefly read those provisions at issue.

10 Section 845.230(d)(i) and we're
11 talking about little 3 and little 4. Little 4
12 states that the initial operating permit
13 application must include a proposed groundwater
14 monitoring program that includes a minimum of
15 eight independent samples for each background and
16 down-gradient well.

17 And little 3 says that the
18 operating permit application must include a
19 groundwater sampling and analysis program that
20 includes selection of the statistical procedures
21 to be used for evaluating groundwater monitoring
22 data.

23 The Agency's recommendation has
24 stated that it is the Agency's interpretation that

1 the initial operating permit application must
2 include a proposed groundwater monitoring program.
3 We've heard -- we've seen in Midwest Gen's
4 petition and in testimony argument that without a
5 background established this operating permit
6 application cannot be complete.

7 Can you just give an explanation
8 to us and the Board as to what you would envision
9 seeing as part of this initial operating permit
10 application for impoundments such as the metal
11 cleaning basin where they were not previously
12 thought to be a 257 impoundment where this
13 background groundwater quality data has not yet
14 existed or been established?

15 A. It's the Agency's position that the
16 initial operating permit could -- would be a
17 proposed monitoring system and would lay out, you
18 know, the sampling schedule to establish
19 background and it would include as part of that
20 the statistical procedures that are compliant with
21 640 -- 845.640, specifically Subsection G, which
22 lays out the requirements that any acceptable
23 statistical method has to meet in order to be
24 used.

1 **Q. So this initial operating permit**
2 **application does not necessarily have to choose**
3 **the statistical method that will ultimately be**
4 **utilized?**

5 A. It doesn't have to contain the
6 specific method, only the procedures that are
7 compliant with 845.

8 **Q. So if an initial operating permit**
9 **application did not include a chosen method, at**
10 **what point would the Agency see this or review it**
11 **if not in this initial operating permit**
12 **application?**

13 A. There's a requirement that owners
14 and operators submit quarterly sampling and it
15 does require the statistical analysis of that
16 sampling round. If they have collected their
17 background by that time, it could come in under a
18 quarterly sampling.

19 There's a requirement for an
20 annual sample or an annual report. It could be
21 included in the annual report. It could also --
22 depending on the timing, it could become part of a
23 subsequent operating permit.

24 **Q. So if a statistical method is not**

1 chosen or background is not established at the
2 time of the initial operating permit application,
3 you would certainly expect that it would be done
4 and included in a renewal application for the next
5 operating permit application round?

6 A. Certainly by then, yes.

7 MS. ZEIVEL: That's all the
8 questions I have. Otherwise, Mr. Dunaway is here
9 and available for follow-up by Midwest Generation
10 and the Board.

11 HEARING OFFICER WEBB: Okay.

12 Ms. Gale?

13 MS. GALE: Yes.

14 C R O S S E X A M I N A T I O N

15 BY MS. GALE:

16 Q. Yes. Mr. Dunaway, I don't think you
17 have it in front of you.

18 I'm looking at -- do you have an
19 extra rule? I guess I can read --

20 A. I can get mine.

21 Q. Yeah, why don't you get yours. I
22 want you to turn to 640(f) entitled Statistical
23 Method. If you turn to 640(f), let's look at
24 640(f)(3). I'm going to read to you from the

1 rule. "The owner or operator of the CCR surface
2 impoundment must submit the following to the
3 Agency in an operating permit application:
4 Documentation of the statistical method chosen."
5 Does it say that there?

6 A. Yes.

7 MS. GALE: I have nothing further.

8 HEARING OFFICER WEBB: Mr. Rao?

9 MR. RAO: No.

10 HEARING OFFICER WEBB: Anybody else
11 anything further? Okay. All right. Thank you,
12 sir.

13 Ms. Zeivel, do you have anything
14 else you would like to present today?

15 MS. ZEIVEL: Well, I assume to cross
16 the t's and dot the i's we should motion to
17 include our recommendation exhibits as the
18 Agency's hearing exhibits. Our foundations were
19 all established in the affidavits of our
20 witnesses.

21 MS. GALE: No objection.

22 HEARING OFFICER WEBB: No objection.
23 Can you please remind me what letters -- or -- A
24 through --

1 MS. ZEIVEL: A through L.

2 HEARING OFFICER WEBB: Okay.

3 MS. ZEIVEL: L as in Larry.

4 HEARING OFFICER WEBB: And those
5 were attached to what? I'm sorry.

6 MS. ZEIVEL: The Agency's
7 recommendation.

8 HEARING OFFICER WEBB: Great.
9 Anything else?

10 MS. ZEIVEL: Will we have closing
11 statements or brief arguments?

12 HEARING OFFICER WEBB: Yes.

13 MS. ZEIVEL: Then I have no other
14 evidence to present.

15 HEARING OFFICER WEBB: We will move
16 onto closing arguments.

17 Ms. Gale, would you like to make
18 a closing argument?

19 MS. GALE: Sure. I haven't prepared
20 one, but I can do it. I think it's pretty simple.
21 Midwest Generation -- we've said it a few times.
22 We're not asking for any alternative requirements
23 for technical evaluations or technical analysis or
24 any corrective alternatives to the corrective

1 actions required under the rule or closure or
2 retrofit.

3 All we're asking for is a very
4 brief extension for these pretty short deadlines
5 and if you recall from the CCR rulemaking, the
6 Agency acknowledged the time for the deadlines
7 were short, but we are now working to work within
8 those deadlines, there's a lot of work to be done
9 in them and for this one pond we're just asking
10 for a brief extension for the operating permit
11 application, to conduct the groundwater sampling
12 analysis, to establish a category designation and
13 to submit the construction permit application
14 should we find that it has groundwater --
15 potentially causes groundwater contamination. Of
16 course if we find it does not, then we're not
17 asking for an extension of that deadline.

18 HEARING OFFICER WEBB: Would the
19 Agency like to make a closing argument?

20 MS. ZEIVEL: Yes. I would just like
21 to reiterate the Agency's position that we do not
22 support nor necessarily object to three of the
23 primary requests for Midwest Generation. The
24 extension to the 180 days to complete sampling

1 while we think the 180-day requirement that we
2 advocated -- the Agency advocated for during the
3 rulemaking proceeding is -- was and is reasonable
4 and on par with the requirements of 257 for new
5 impoundments due to the logistical issues and
6 necessary for Midwest Generation to complete that
7 sampling, it does -- the Agency does believe that
8 it points to a need for additional time.

9 Establishment of quality
10 background is critical to ensure a protection of
11 groundwater resources. Because of that, despite
12 the Agency's interpretation of the operating
13 permit application requirements, which we
14 emphasized a bit today at the hearing, it is still
15 vitally important that an operating permit
16 application be as complete and accurate as
17 possible.

18 The Agency believes that that
19 accuracy can be obtained and a complete
20 application can be submitted prior to background
21 being established. However, we do also support a
22 fuller, more robust application and so when it
23 came to supporting or denying that extension we
24 really felt that we provided the technical pros

1 and cons to Midwest Gen's request in fulfilling
2 our recommendation requirements, but that
3 ultimately whether Midwest Generation has met
4 their burden in terms of hardship compared to
5 environmental harm, that that was an ultimate
6 determination for the Board to make.

7 When it comes to the category
8 designation, the Agency was more reticent to
9 neither support nor object to that extension.
10 However, ultimately in the scheme of things, it
11 will not -- when Midwest Gen submits their
12 category designation doesn't ultimately impact
13 when closure would start or the actual closure
14 timeline.

15 So for that reason, while we
16 think a conservative choice could be made in the
17 scheme of getting these impoundments, you know,
18 under permit and closed, we didn't feel that it
19 weighed against granting that extension and for
20 those reasons the Agency chose in its
21 recommendation not to support nor object to those
22 requirements.

23 As for the construction permit
24 application, the Agency's objection to that

1 extension remains. For the reasons set forth in
2 the recommendation, we feel that the construction
3 permit application is more likely to impact later
4 operating permit applications. So you get an
5 initial operating permit with as much information
6 as you have. You make it as complete to fulfill
7 the requirements of 845. You get these
8 impoundments under an operating permit
9 application.

10 Yes, they will have additional
11 data that will be incorporated into the
12 construction permit applications, but a lot of
13 times those construction permit applications
14 inform later operating permit applications. So
15 the reliance of this domino effect described today
16 by today's witnesses the Agency views it
17 differently and we view the process differently
18 and based on the way the Agency intends to
19 implement the program is why we chose -- believed
20 we needed to object to the extension of the
21 construction permit application.

22 HEARING OFFICER WEBB: Okay. Thank
23 you. The expedited transcript will be available
24 by Monday, July 26th and will be posted on the

1 Board's website. The public comment deadline is
2 July 28th. Public comment must be filed in
3 accordance with Section 101.628 of the Board's
4 procedural rules.

5 The parties have agreed to the
6 following briefing schedule. Both parties briefs
7 are due by August 9th, 2021, with no response
8 briefs. The parties are also reminded to review
9 35 Ill. Adm. Code 101.627 pertaining to the
10 electronic filing of exhibits post-hearing.

11 Before we conclude, I will ask
12 one more time if anybody else would like to make
13 any comments? Okay. Seeing nobody, I will
14 conclude the proceedings and we stand adjourned
15 and I thank everyone for their participation.
16 Thank you.

17 MS. ZEIVEL: Thank you.

18 MS. GALE: Thank you.

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1 BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

2
3 I, Steven Brickey, Certified Shorthand
4 Reporter, do hereby certify that I reported in
5 shorthand the proceedings had at the trial
6 aforesaid, and that the foregoing is a true,
7 complete and correct transcript of the proceedings
8 of said trial as appears from my stenographic
9 notes so taken and transcribed under my personal
10 direction.

11 Witness my official signature in and for
12 Cook County, Illinois, on this _____ day of
13 _____, A.D., 2021.

14
15
16
17
18 _____
19 STEVEN BRICKEY, CSR, RMR, CRR
20 8 West Monroe Street
Suite 2007
Chicago, Illinois 60603
21 Phone: (312) 419-9292
CSR No. 084-004675
22
23
24

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