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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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STATE OF ILLINOIS
Pollution Control Board

SIERRA CLUB, NATURAL
RESOURCES DEFENSE COUNCIL,
PRAIRIE RIVERS NETWORK, and
ENVIRONMENTAL LAW & POLICY
CENTER,

Petitioners,

vs.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY and
MIDWEST GENERATION, LLC,

Respondents.

)
)
)
)
) No. 15-189
) Third-Party
) NPDES Permit
) Appeal-Water
)
)

NOTICE OF HEARING

A Hearing in the above-captioned matter is
scheduled and will continue as necessary on the
following date, time and place:

October 5th, 2016
9:00
James R. Thompson Center
Room 9-034
100 West Randolph Street
Chicago, IL 60601

IT IS SO ORDERED.

1 PRESENT:

2
3 MR. BRADLEY P. HALLORAN, Hearing Officer.

4 ENVIRONMENTAL LAW & POLICY CENTER, by
5 MS. JESSICA DEXTER
6 35 East Wacker
Suite 1600
Chicago, IL 60601

7 appeared on behalf of the Petitioners.

8
9 NIJMAN, FRANZETTI, LLP, by
MS. SUSAN M. FRANZETTI
10 and
MR. VINCENT R. ANGERMEIER
11 10 South LaSalle Street
Suite 3600
12 Chicago, IL 60603

13 appeared on behalf of the Respondents,
Midwest Generation, LLC.

14
15 OFFICE OF THE ATTORNEY GENERAL OF THE
STATE OF ILLINOIS, by
16 MR. ROBERT PETTI
and
17 MR. ANGAD NAGRA
69 West Washington Street
18 18th Floor
Chicago, IL 60602

19 appeared on behalf of the Respondents
20 Illinois Environmental Protection
Agency.
21
22
23
24

1 HEARING OFFICER HALLORAN: Good morning. My name
2 is Brad Halloran. I'm a Hearing Officer with the
3 Illinois Pollution Control Board. I'm also assigned to
4 this matter entitled Sierra Club Natural Resources
5 Defense Council, Prairie Rivers Network Environmental
6 Law and Policy Center are the petitioners, versus
7 Illinois Environmental Protection Agency and Midwest
8 Generation, LLC, Respondents.

9 It's docketed as PCB 15-189. It's a
10 third-party NPDES permit appeal.

11 Today is October 5th, 2016. It's
12 approximately 9:20. This case was noticed up properly
13 according to the Board Rules, and will be conducted
14 pursuant to Sections 101 and 105, again, of the Board's
15 procedural Rules.

16 The parties had previously filed cross-
17 motions for Summary Judgment which the Board granted in
18 part and denied in part.

19 Reading from the Board's Order, this
20 hearing is confined to the two remaining issues left
21 unresolved by the Board. And they are, first, did the
22 permit as issued comply with the applicable Ford
23 regulations on alternative thermal effluent
24 limitations; and second, do the permit's conditions

1 require that the facility's cooling water intake
2 structure use the interim Best Technology Available.

3 My job here is to rule on any evidentiary
4 matters and hopefully make a clear record so the Board
5 will take the transcript, the record, and the post-
6 hearing Briefs and make their decision.

7 With that said, I'm pleased to announce we have
8 Chairman Keenan with us, and we have attorney/ advisor
9 Jason James, technical unit, Anand Rao, and Lisa Liu
10 with us, and they may or may not ask questions of the
11 witnesses as we proceed.

12 With that said, Miss Dexter, would you
13 like to introduce yourself?

14 MS. DEXTER: Yes. My name is Jessica Dexter,
15 D-e-x-t-e-r. And I am counsel for petitioners in this
16 matter. Anybody else you want to introduce at the
17 table?

18 MS. DEXTER: I think I will be the only one
19 speaking on the transcript.

20 HEARING OFFICER HALLORAN: Perfect. Mr. Petti?

21 MR. PETTI: I'm Robert Petti, Assistant Attorney
22 General representing IEPA.

23 MR. NAGRA: Angad Nagra, also an Assistant
24 Attorney General representing IEPA.

1 MS. TERRANOVA: I am Sarah Taranova, counsel for
2 the Illinois EPA.

3 MS. FRANZETTI: I'm Susan Franzetti. I am counsel
4 for respondent Midwest Generation. And I would like to
5 introduce as well Mr. Fred Veenbaas, who is the Senior
6 Environment Specialist for Midwest Generation and
7 representing the company today. He is not going to be
8 a testifying witness.

9 MR. ANGERMEIER: Vince Angermeier representing
10 Midwest Generation.

11 HEARING OFFICER HALLORAN: I want to know for the
12 record, there are no members of the general public here
13 as of yet. Miss Dexter, if you plan to make an
14 opening?

15 MS. DEXTER: I have not planned to. I'm ready to
16 just --

17 HEARING OFFICER HALLORAN: Okay. Mr. Petti?

18 MR. PETTI: No.

19 HEARING OFFICER HALLORAN: Miss Franzetti?

20 MS. FRANZETTI: No. Ready to proceed.

21 HEARING OFFICER HALLORAN: All right. Proceed
22 with your case.

23 MS. DEXTER: I would like to begin by calling the
24 first witness, Jaime Rabins.

1 HEARING OFFICER HALLORAN: Please raise your right
2 hand and the court reporter will swear you in.

3 THE COURT REPORTER: Raise your right hand please.

4 (The oath was thereupon duly
5 administered to the witness
6 by the Notary.)

7 JAIME RABINS,

8 Called as a witness by the Petitioner herein, having
9 been first duly sworn, was examined and testified as
10 follows:

11 DIRECT EXAMINATION

12 By: Ms. Dexter

13 Q Can you please state your name for the
14 record?

15 A Jaime Rabins, J-a-i-m-e R-a-b-i-n-s.

16 Q And do you work for Illinois EPA?

17 A I do.

18 Q And what is your title in Illinois EPA?

19 A I'm an Environmental Protection Engineer.

20 Q How long have you worked for IEPA?

21 A Ten and-a-half years.

22 Q Did you participate in developing or drafting
23 the 2015 NPDES permit for the Midwest Generation
24 Waukegan station?

1 A Yes.

2 Q And I'm going to start by getting some
3 documents out and into circulation here.

4 Is the document which is labeled in the
5 administrative record IEPA Exhibit No. 70, beginning on
6 Page 685 of the administrative records that I'm handing
7 you right now, is that the final permit issued on
8 March 25th, 2015?

9 A Yes, it is.

10 Q And can you confirm that the document titled
11 IEPA Exhibit No. 67 in the administrative record that
12 begins on Page 656 is the Responsiveness Summary that
13 IEPA issued along with the permit?

14 A It is.

15 Q Thank you. Can you please explain what a
16 Responsiveness Summary is?

17 A We respond to questions that were raised
18 during a public hearing in the comment period regarding
19 the public notice permit.

20 Q I next call your attention to the thermal
21 variance that's at issue in this proceeding which is
22 labeled IEPA Exhibit No. 1. And begins on Page 1 of
23 the administrative record. Can you confirm that this
24 is the thermal variance granted by the Board in 1978?

1 A It is.

2 Q All right. And can you identify who the
3 thermal variance was granted to at that time?

4 Let me help you out. Was Commonwealth
5 Edison the owner and operator at the time that that
6 thermal variance was granted?

7 A Yes, I believe they were.

8 Q And if you can, can you state what the terms
9 of the variance are; in other words, what limit on
10 thermal discharges does the variance establish?

11 A It's 5,301 million BTUs per hour, and
12 758,000 gallons per minute.

13 Q Well done doing the math on the fly there.

14 And is there a thermal aspect, other than
15 the limitation on the generation, is there a
16 temperature limit that the variance establishes for the
17 effluence that is discharged under the variance? Is it
18 your understanding that there is no temperature limit
19 established for the effluent limitations within the
20 thermal variance?

21 MS. FRANZETTI: Objection to form, because heat
22 rejection rate can be viewed that way. Is what you're
23 getting at numeric temperature limits?

24 THE WITNESS: Yes.

1 MS. DEXTER: Let me try to rephrase.

2 HEARING OFFICER HALLORAN: And I guess for the
3 future, a formality. I'm not sure whose witness this
4 is. And I don't know if Midwest Generation has any
5 witnesses. You didn't disclose any.

6 MS. FRANZETTI: No.

7 HEARING OFFICER HALLORAN: So usually Mr. Petti
8 would object. Just to try to make it clean. You know,
9 it's his witness, basically. I know it's adverse
10 but --

11 MS. FRANZETTI: Okay. Well, then I have to
12 address that for the record, Mr. Hearing Officer.

13 HEARING OFFICER HALLORAN: Okay.

14 MS. FRANZETTI: We are a party to this proceeding.
15 We are one of the respondent. Therefore, we have full
16 participation rights in this hearing.

17 HEARING OFFICER HALLORAN: Right. But you didn't
18 disclose -- you said you weren't going to call any
19 witnesses.

20 MS. FRANZETTI: I understand. But that doesn't
21 mean that as a party to this proceeding, I can't object
22 to what is a vague or otherwise improper question.

23 HEARING OFFICER HALLORAN: Well, if it's not your
24 witness, you can't object. But I will allow it, just

1 to make the record clear so the Board --

2 Mr. Petti disclosed his witnesses. You
3 disclosed nothing.

4 MS. FRANZETTI: I understand that. But I'm not
5 aware of any Board hearing rule including an
6 affirmative --

7 HEARING OFFICER HALLORAN: It's the way trials
8 work. I mean it's not a rule making. But we can
9 proceed. You may state your objection.

10 MS. FRANZETTI: Again, in State Court or in
11 Federal Court, I would be able to object.

12 HEARING OFFICER HALLORAN: State Court or Federal
13 Court, it's not your witness. You can't object.

14 MS. FRANZETTI: I disagree with that
15 representation of what state rules are at trials or any
16 other hearing.

17 HEARING OFFICER HALLORAN: So noted, but
18 incorrect. You may proceed.

19 MS. DEXTER: Thank you.

20 BY MS. DEXTER:

21 **Q Is it correct that there is no numeric**
22 **temperature limitation on the discharge itself**
23 **established by this thermal variance?**

24 **A Correct.**

1 Q Do you happen to know when that alternative
2 thermal effluent limit was first incorporated into the
3 NPDES for Waukegan station?

4 A It's in the record. I don't recall off the
5 top of my head.

6 Q Is it your understanding that the alternative
7 thermal effluent limit has been incorporated into each
8 permit renewal since the variance was established in
9 1978?

10 A Correct.

11 Q Would I be correct in saying that the
12 administrative record contains no studies of thermal
13 discharges based on Midwest Generation's actual
14 operation experience of the Waukegan Station since the
15 previous permit was issued in the year 2000?

16 A Can you repeat that?

17 Q Yes. I will repeat it as verbatim as I can.

18 Would I be correct in saying that the
19 administrative record contains no studies of the
20 thermal discharges based on Midwest Generation's actual
21 operation experience of the Waukegan Station since the
22 previous permit was issued in the year 2000?

23 MS. FRANZETTI: I'll object to mischaracterization
24 of the record evidence.

1 MR. PETTI: I'll join.

2 MS. DEXTER: I did not mischaracterize the record
3 evidence.

4 MS. FRANZETTI: Yes, you have, in that question.

5 HEARING OFFICER HALLORAN: Try to rephrase, Miss
6 Dexter.

7 BY MS. DEXTER:

8 Q Are there in the administrative record any
9 studies showing the current extent of the impact of the
10 thermal discharges on Lake Michigan between the year
11 2000, when the permit was previously issued, and the
12 year 2015 when the final permit at issue here was
13 finalized?

14 A There were studies of Lake Michigan of the
15 receiving water.

16 Q Can you point to those in the record?

17 A I don't have the records.

18 Q So let me make sure that I'm clear.

19 The studies of the thermal discharges
20 themselves, for example, you might evaluate the
21 temperature, the volume, the location, the extent of
22 those discharges. Are there any such studies in the
23 record? I will even broaden my question. Since the
24 thermal variance was issued in 1978?

1 A Has there -- you're saying has the discharge
2 been studied since 1978?

3 Q Are there studies in the administrative
4 record showing studying the thermal discharges that
5 might include attributes like the temperature, the
6 location, the extent?

7 A There were studies cited in the record
8 concerning lake Michigan about the condition of the
9 lake.

10 Q Right. But I'm asking, are there any studies
11 with the discharges themselves and the discharges'
12 impact on the -- the discharges' influence on lake
13 Michigan?

14 MS. FRANZETTI: I'm going to object to form. It's
15 been asked and answered.

16 You're having trouble with him disagreeing
17 with you about studies of the aquatic life in Lake
18 Michigan.

19 MS. DEXTER: Right.

20 MS. FRANZETTI: Not dealing with thermal discharge
21 effects. But that's what he's testified to.

22 MS. DEXTER: There are two components here that
23 I'm --

24 HEARING OFFICER HALLORAN: Okay. Overruled.

1 Please ask the question. The witness may answer.

2 MS. DEXTER: Thank you.

3 BY MS. DEXTER:

4 Q So there are two pieces -- I'm saying this to
5 explain, not to testify. But there are two pieces of
6 the puzzle here. There's the thermal discharges
7 themselves, and there's the impact of those thermal
8 discharges on aquatic life. And I'm specifically
9 talking about the attributes of the thermal discharges
10 themselves. Is it true that there are no studies in
11 the record about those thermal discharges since the
12 variance was issued in 1978?

13 A There is data going back to the original
14 permit. They have temperature data and flow data which
15 is data about the thermal discharges to Lake Michigan.

16 Q So there is raw data, but there's no analysis
17 of that data and what kind of -- how much that changes
18 the temperature in the receiving water and in what
19 areas?

20 MS. FRANZETTI: Objection, form.

21 MR. PETTI: Objection.

22 HEARING OFFICER HALLORAN: Sustained.

23 BY MS. DEXTER:

24 Q What type of data are you talking about in

1 terms of -- are you talking about discharge monitoring
2 reports data in the record?

3 A There is discharge monitoring reports for
4 this facility, yes.

5 Q Have those discharge monitoring reports been
6 analyzed in -- has that raw data that's in the record
7 been analyzed in any way to show the location or extent
8 of the influence on the receiving waters?

9 A No. There was a thermal plume study, though.

10 Q Was there a thermal plume study that was
11 conducted since the thermal variance was issued in
12 1978? Let me rephrase that.

13 Isn't it true that the thermal plume study
14 that is in the record was in support of the original
15 thermal variance in 1978?

16 A That is the study I'm aware of, yes.

17 Q Thank you. Is it true that Unit 6 at
18 Waukegan Station was retired in the time since the
19 variance was granted in 1978?

20 A Yes.

21 Q And how did that change the nature of the
22 discharge?

23 A By decreasing heat load associated with the
24 unit coming off-line.

1 Q Okay. I am going to hand you what is marked
2 in the administrative record IEPA Exhibit No. 28 that
3 begins on Page 239 of the administrative record.

4 This document is an email exchange between
5 I will say generally IEPA staff and representatives of
6 Midwest Generation?

7 A You handed me two emails. Which one are you
8 talking about?

9 Q I'm talking about the conversation that is
10 represented here. This is how this was presented in
11 the administrative record. I'm really just trying to
12 confirm what this document is.

13 We're looking at an email exchange from
14 Midwest Generation. For simplicity sake, let's look at
15 just the email that begins about halfway down on the
16 first page that is from Susan Franzetti to Deborah
17 Williams as an IEPA staff member. It's true that
18 Deborah Williams was at the time a staff member of
19 Illinois EPA?

20 A Correct.

21 Q And on Page 240 of the record, the second
22 page of this document, it states that the heat
23 rejection rate is 39 percent lower. Can you explain
24 what the heat rejection rate is?

1 A That's the quantity of heat per unit time.

2 Q And did retiring Unit 6 also reduce the
3 amount of flow discharged by the permittee?

4 A Yes. There was a quantity -- flow was
5 reduced.

6 Q So it says here water flow rate is 37 percent
7 lower. Is that a speed or an amount, in your
8 understanding?

9 A A rate is the volume per unit time.

10 Q Okay. I guess both.

11 Is there anything in the record analyzing
12 whether the velocity of the flow has changed?

13 A The velocity of what?

14 Q Of the flow as it is discharged?

15 A The velocity would decrease. It's probably
16 not discussed in the record, but the velocity would
17 decrease because the flow decreased.

18 Q Okay. And there's nothing in the record that
19 analyses the interaction between lake current and these
20 changed flow characteristics; is that correct?

21 A There were studies on the record. I don't
22 recall seeing that specific topic discussed.

23 Q I'm specifically asking whether there have
24 been any studies, since Unit 6 was retired, analyzing

1 **how that flow change reacts with lake current?**

2 A No, I don't recall seeing that specific
3 study.

4 Q Thank you.

5 So this document that I'm about to hand
6 out is -- it is within the IEPA hearing exhibit within
7 the administrative record. I can get the number of
8 that in just a moment before I get this into your
9 hands. So this document is one of those listed hearing
10 exhibits that begins on page 983 of the record.

11 MS. DEXTER: Do you want me to track down that
12 number of the hearing exhibits, or do we think we
13 have --

14 HEARING OFFICER HALLORAN: That would be great. I
15 mean it's not marked on the top.

16 MS. DEXTER: I can do it.

17 HEARING OFFICER HALLORAN: Do you think this is a
18 document within the exhibit?

19 MS. DEXTER: Yes, it's a document within the
20 exhibit, and I know that the exhibit in the IEPA index
21 was --

22 MR. PETTI: Petti. Just tell us the Bates number.

23 MS. DEXTER: It's 983. So this is labeled as IEPA
24 Exhibit No. 72 within the administrative record. And

1 this appears to be part of Exhibit No. 9 within that.
2 I think that's enough to track down this document.

3 HEARING OFFICER HALLORAN: That's what I have.
4 I'm looking at Mr. Petti's.

5 MS. DEXTER: Yes.

6 BY MS. DEXTER:

7 Q Okay. So within this letter from Midwest
8 Generation that's been identified, there is on page
9 988, I call your attention to the third paragraph on
10 page 988 where Midwest Generation admits that the
11 original 1971 variance -- or I'm sorry. Original 1971
12 study of the thermal plume, "Would not accurately
13 represent the current delineation of the thermal plume
14 from the outfall 001 discharge."

15 And to confirm a conversation that we had
16 a few minutes ago, there is nothing in the record that
17 does provide a current delineation of the thermal
18 plume, is there?

19 A The thermal plume is in the record. I mean
20 we referenced the original Board Order which discusses
21 a thermal plume.

22 Q I don't believe that answers my question.
23 I'm going to try to walk through this.

24 So we know that there's that original

1 thermal plume study in the record; you just referenced
2 that?

3 A Yes.

4 Q Here I just showed you language that Midwest
5 Generation submitted to IEPA stating that it did not
6 believe that that thermal plume was accurate any
7 longer. And I'm asking, is there a more current
8 thermal plume study in the record?

9 MS. FRANZETTI: I'm going to object to form,
10 because you're misquoting the full statement in that
11 document which is prefaced with, "Due to the fact that
12 those studies were performed when all four units were
13 operating at the Waukegan Station and only two units
14 are still operating today, the results of those studies
15 would not accurately represent the current delineation
16 of the thermal plume from Outfall 001 discharge."

17 MS. DEXTER: Thank you, Susan. I think that more
18 clearly makes my point.

19 MS. FRANZETTI: I disagree, counsel, that it makes
20 your point.

21 MS. DEXTER: We can disagree. The record is what
22 it is.

23

24 BY MS. DEXTER:

1 Q Had there been a more current thermal plume
2 study conducted and included in the administrative
3 record?

4 A No. The situation appears to have changed
5 for the better; less heat, less flow.

6 Q I'm going to change gears a little bit to
7 that second part of the inquiry that we discussed. Is
8 it true that the record also contains no studies of
9 aquatic life based on Midwest Generation's actual
10 operations experience of the Waukegan Station since the
11 previous permit was issued in 2000?

12 And if you'd like me to stay clarified
13 here, I am talking about an actual study of the
14 receiving waters.

15 A There were studies of Lake Michigan
16 referenced in the record, and we provided responses in
17 the Responsiveness Summary about changes in the lake.

18 Q Would I be correct in stating that there are
19 no site-specific studies in the record that describe
20 the aquatic life in the vicinity of the receiving
21 waters?

22 MS. FRANZETTI: Objection to form, site specific.
23 I'm not sure how you're defining what that includes and
24 what it excludes.

1 MS. DEXTER: I will go back to my previous
2 question.

3 BY MS. DEXTER:

4 Q I think the key part of the question here,
5 the question that I'm asking, and we'll get to the part
6 about the general Lake Michigan studies, but the key
7 part about what I'm asking is, the studies based on
8 Midwest Generation's actual operation experience of the
9 Waukegan Station since the previous permit was issued
10 in 2000.

11 MR. PETTI: Same objection. I don't know what
12 you're asking. I don't know what operating experience.

13 HEARING OFFICER HALLORAN: Overruled. If the
14 witness can answer, you may do so.

15 THE WITNESS: I don't know what she's asking.

16 BY MS. DEXTER:

17 Q I am going to read a segment of the Board's
18 Rule at 35 Illinois Administrative Code
19 Section 106.1180. This is subsection B. It says,
20 "Any application for renewal should include sufficient
21 information for the agency to compare the nature of the
22 permittee's thermal discharge and balanced indigenous
23 population of shellfish, fish and wildlife at the time
24 the Board granted the alternative thermal effluent

1 limitations, and the current nature of the petitioner's
2 thermal discharge, and the balanced indigenous
3 population of shellfish, fish and wildlife.

4 "The permittee should be prepared to
5 support this comparison with documentation based on the
6 discharge's actual operation experience during the
7 previous permit term."

8 My question is very precisely tailored to
9 that requirement, and I'm asking whether there are
10 aquatic life studies that are based on the discharge's
11 actual operation experience during the previous permit
12 term?

13 MS. FRANZETTI: Objection to form. It's a
14 misstatement of what the regulation states as --

15 HEARING OFFICER HALLORAN: You know, I'm going to
16 overrule it and let you answer if you are able.
17 Proceed, Mr. Witness.

18 THE WITNESS: There is -- we had information in
19 the record that meets sub-part K requirements.

20 BY MS. DEXTER:

21 Q That's what we're here to decide here.

22 A Okay.

23 Q I am asking you to point to that record,
24 point to where in the record, or confirm that there is

1 **no information in the record about aquatic life impacts**
2 **during the discharge's actual operation experience**
3 **during the previous permit term?**

4 MR. PETTI: I'm going to object to this question
5 on the grounds that the record in this case is over
6 1,200 pages. He does not have a copy in front of him.
7 He doesn't have the exhibits in front of him to point
8 what he might be referring to.

9 HEARING OFFICER HALLORAN: You can provide him the
10 exhibits or the record. If he can answer from memory,
11 he may do so.

12 MR. PETTI: I mean I can give you a copy of a
13 portion of the record if we want to take the time for
14 him to go through that portion of the record when the
15 question is pending and point out what may or may not
16 be responsive, or we can have him answer.

17 HEARING OFFICER HALLORAN: You've looked through
18 the record, right, numerous times, Mr. Rabins?

19 THE WITNESS: Yes.

20 HEARING OFFICER HALLORAN: So if you can answer,
21 answer.

22 MR. PETTI: Okay.

23 HEARING OFFICER HALLORAN: You can finish up on
24 cross or redirect or whatever.

1 MR. PETTI: Okay, that's fine.

2 HEARING OFFICER HALLORAN: Thank you. So
3 Mr. Rabins, do you need something to take a look at?
4 Do you have to look at the whole record right now?

5 THE WITNESS: Well, I have an idea where to go.

6 If you look at 203 of the record, there
7 are several major studies cited. We had that; that
8 data was in the record.

9 BY MS. DEXTER:

10 Q Just to be sure, these studies that are cited
11 here, were those studies conducted during the previous
12 permit term?

13 A I'm not able to answer that.

14 Q Okay. We'll get to it.

15 A There is a 2003 to 2005 field data that was
16 collected by Midwest Generation, if you look at Page 2
17 of 4 of the record, the second from the last paragraph,
18 that would have been collected during the last permit.

19 Q All right. You said that was on Page 2 of 4
20 of the record, correct?

21 A Yes.

22 Q Where is the data that you're referencing on
23 Page 2 of 4 coming from?

24 A It was collected by Midwest Generation. I

1 don't understand beyond that what you're asking.

2 **Q Let's see if we can bring out what we are**
3 **referring to. I will hand you this right away.**

4 MS. DEXTER: I'm trying to find the exhibit number
5 from the administrative record. So the document that I
6 just handed to the witness begins on Page 1204 of the
7 Administrative Record. It's not marked at the top as
8 the other exhibits are, but it does stand alone on the
9 index that the agency provided. So this is listed
10 as --

11 HEARING OFFICER HALLORAN: It's Bates stamped
12 1204.

13 MS. DEXTER: Is that good enough for now?

14 MR. PETTI: I'm sorry. Mr. Hearing Officer, we're
15 fine with proceeding with just the Bates numbers. I'm
16 fine with that.

17 MS. DEXTER: That will be easier than trying to
18 track them down.

19 BY MS. DEXTER:

20 **Q So a moment ago you referred to some data**
21 **that Midwest Generation submitted to the agency. Are**
22 **you referring to the preliminary data from the 2005**
23 **proposal for information collection for the Waukegan**
24 **Station that I just handed you, beginning on Page 1204?**

1 A I'm referring to their statement on 204 which
2 doesn't say that it was obtained from the PIC. It
3 doesn't say that word specifically; it doesn't mention
4 the PIC in that response.

5 Q Now that we found this document, I think
6 we're going to set it aside for later.

7 A Okay.

8 Q So you were in the process of answering the
9 question of whether or not there is any new data in the
10 record. You identified the statements in the letter
11 from Midwest Generation, but at this point we don't
12 know where those statements came from, the data that
13 you're referring to.

14 MS. FRANZETTI: Objection. That's not what the
15 witness said.

16 MR. PETTI: I'll join.

17 HEARING OFFICER HALLORAN: Do you want to
18 rephrase?

19 BY MS. DEXTER:

20 Q I just want to make sure that you were
21 finished answering the question that we're working on
22 here.

23 MS. FRANZETTI: Well, I don't know what the
24 question is that we're working on.

1 HEARING OFFICER HALLORAN: Excuse me. Is that an
2 objection, Miss Franzetti?

3 MS. FRANZETTI: Well, it is an objection. Counsel
4 is just making these speeches.

5 HEARING OFFICER HALLORAN: Okay. Sustained. I
6 asked Miss Dexter to rephrase. Thank you.

7 BY MS. DEXTER:

8 Q You just referred to some information on
9 Page 2 of 4 of the administrative record that you
10 stated is your response to my question about whether
11 there are studies of aquatic life based on Midwest
12 Generation's actual operation experience of the
13 Waukegan Station since the previous permit was issued.
14 Is there anything else in the record that you would
15 like to point to that qualifies as an answer for that
16 question?

17 A I would have to go through it more. There's
18 responses in the Responsiveness Summary addressing this
19 topic of what we found.

20 Q Other than -- actually, let me strike that.
21 Has Midwest Generation submitted any
22 studies that it conducted about aquatic life based on
23 its actual operation experience?

24 MS. FRANZETTI: Objection. Asked and answered.

1 He cited to the statement in the Midwest Generation
2 comments about collecting data.

3 HEARING OFFICER HALLORAN: I believe that has been
4 asked and answered.

5 MS. DEXTER: We'll leave that there then.

6 BY MS. DEXTER:

7 Q I am now going to take us back to that
8 variance that we referred to at the beginning, the
9 thermal variance beginning on Page 1 of the
10 Administrative Record.

11 So going all the way back to the variance
12 in 1978, the Board Order states that there was an
13 objection due to "The absence of opinions of recognized
14 independent experts on Lake Michigan."

15 In allowing the variance, the Board then
16 noted that, "Edison has promised to continue studying
17 the possible damaging effects on the lake in the
18 future."

19 Does the administrative record contain any
20 promised follow-up study of thermal effects on aquatic
21 life from Commonwealth Edison?

22 MS. FRANZETTI: I will just make the objection
23 that I think this does go beyond the permit record in
24 terms of asking about something that probably occurred

1 back in the 1980's and was never raised below in any
2 comments or requests for this information to be
3 included in the record.

4 HEARING OFFICER HALLORAN: So noted and overruled.
5 You may answer if you're able.

6 THE WITNESS: Can you repeat the question?

7 BY MS. DEXTER:

8 Q Does the administrative record contain any
9 promised follow-up study of thermal effects on aquatic
10 life from Commonwealth Edison?

11 A Not to my knowledge.

12 Q Did Illinois EPA ask the permittees to submit
13 any of this information on the actual -- on the
14 discharge's actual operation experience?

15 MS. FRANZETTI: Objection to form.

16 MR. PETTI: This information isn't clear. I'll
17 join the objection.

18 HEARING OFFICER HALLORAN: Do you want to
19 rephrase, Miss Dexter?

20 MS. DEXTER: Yes.

21 BY MS. DEXTER:

22 Q Did Illinois EPA require the discharger,
23 prior to issuing the permit, to submit documentation
24 based on the discharge's actual operation experience

1 during the previous permit term regarding the nature of
2 the thermal discharge or the balanced indigenous
3 population of shellfish, fish and wildlife?

4 A Yes.

5 Q And what information is that?

6 MS. FRANZETTI: I'm just going to object. I do
7 think a big part of this has been asked and answered.

8 MR. NAGRA: I also agree with that objection.

9 HEARING OFFICER HALLORAN: Yes, Miss Dexter, I
10 think it has been asked and answered.

11 MS. DEXTER: I think we've covered it. I think
12 that we've established what needs to be established
13 here.

14 BY MS. DEXTER:

15 Q One more question in this sphere here.

16 So special condition 4 of the 2015 permit
17 that we were looking at, that's on Page 665 of the
18 Administrative Record -- it is one of the exhibits that
19 I handed you -- requires certain activities and studies
20 in order to ensure that the nature of the thermal
21 discharge has not changed and the alternative thermal
22 effluent limitation granted by the Board has not caused
23 appreciable harm to a balanced, indigenous population
24 of shellfish, fish and wildlife in and on the body of

1 **water into which the discharge is made. Those studies**
2 **were not available at the time the permit was issued in**
3 **2015; is that correct?**

4 A Can you repeat what page number you're
5 referring to of the record?

6 HEARING OFFICER HALLORAN: 665.

7 THE WITNESS: That's not what I show.

8 BY MS. DEXTER:

9 Q So what I was referring to actually is a
10 discussion of special condition 4 in -- let me simplify
11 this a little bit. We are looking at Special Condition
12 4. It's on Page 695 of the Administrative Record.

13 MR. PETTI: Jessica, if I may, are you restarting
14 the question, restating the question? Where are we at
15 on this question?

16 HEARING OFFICER HALLORAN: You can direct that to
17 me, Mr. Petti.

18 MR. PETTI: Sorry.

19 HEARING OFFICER HALLORAN: What's your objection
20 or just your observation?

21 MR. PETTI: I'm sorry, Mr. Hearing Officer. For
22 clarification, I'd like to know if we're restarting the
23 question, or if this is a continuation of the last
24 question pending. There was a question pending. I'd

1 just like the record to be clear what we're doing.

2 MS. DEXTER: I can restart the question and then
3 reclarify what I was asking.

4 MR. PETTI: Thank you.

5 BY MS. DEXTER:

6 Q So Special Condition 4 which is stated on
7 Page 695 of the Administrative Record requires certain
8 studies and activities that are related to the thermal
9 discharges and their effect on aquatic life; is that
10 correct?

11 A Special Condition 4 is to support
12 continuation of the thermal variance; is asking for
13 information in support of the thermal variance.

14 Q Right. And my question is, is that
15 information that the agency is requiring in Special
16 Condition 4, was that available to the agency prior to
17 the permit issuance in 2015?

18 A No.

19 Q Thank you.

20 So let's turn now to the evidence the
21 agency cites to support the renewal of the thermal
22 variance in 2015. The Responsiveness Summary on
23 Page 666 of the Administrative Record states that, "The
24 Illinois EPA has reviewed the thermal studies from 1975

1 and 1976 conducted in accordance with 316(a) of the
2 Clean Water Act."

3 Isn't it true that neither Midwest
4 Generation, Illinois EPA, nor USEPA can locate copies
5 of those studies and that they are not in the record?

6 A Correct. The original studies are not in the
7 record.

8 Q So let's see what evidence might actually be
9 in the record.

10 There have been references to a summary of
11 the evidence that supported the thermal variance. So
12 let's take a look at that next.

13 I'm going to hand you a letter now. So
14 we're looking at Page 241 of the Administrative Record.
15 This is an attachment to the exhibit that starts on
16 Page 239 that I handed you a few minutes ago, the
17 emails. And if you could turn to page -- so there's an
18 attachment letter here dated June 14th, 1974. If you
19 can look on Page 242 and also 243? Do you see a list
20 of citations to studies dated 1972 to 1974?

21 A No, I don't see that.

22 Q On Page 242?

23 A Yes.

24 Q Under the sentence stating, "The information

1 and data offered in support of the facts presented in
2 the summary as listed below are submitted as part of
3 this demonstration." And below there, you're stating
4 that there are not a list of citations for the next two
5 pages?

6 A Yes, there are a list of citations on the
7 next two pages.

8 Q And was your quibble that I had referred to
9 the studies as ranging from 1972 to 1974?

10 A That wasn't what you asked.

11 Q But you do see a list of studies here on
12 Pages 242 and 243?

13 A I see a list of citations, yes.

14 Q Are any of those studies contained in this
15 Administrative Record?

16 A They are referenced in the record.

17 Q But isn't it true that none of these studies
18 are included in the Administrative Record?

19 A What's your definition of included?

20 Q Is it included within the pages of the
21 Administrative Record? Do we have the full studies of
22 any of these -- do we have the full documents that are
23 cited here anywhere in the record?

24 A The full studies, to my knowledge, are not in

1 the record.

2 Q And here where there is a list of studies, do
3 you see any substantive summary of the findings of any
4 of those studies?

5 A No, there does not appear to be a summary on
6 this 1974 letter, June 14th, 1974, letter.

7 Q Are you aware of a substantive summary of the
8 findings of these studies anywhere in the
9 administrative record?

10 A No.

11 Q Thank you.

12 Now let's look at the information that we
13 have about the state of aquatic life in receiving
14 waters. So the only information in the record we have
15 regarding aquatic life is generally to trends in Lake
16 Michigan; is that correct?

17 MS. FRANZETTI: Objection. That's contrary to the
18 witness's prior testimony.

19 HEARING OFFICER HALLORAN: I'm sorry, Miss
20 Franzetti?

21 MS. FRANZETTI: I think the statement is a
22 mischaracterization of what the witness has testified
23 to in terms of what's in the record.

24 HEARING OFFICER HALLORAN: Miss Dexter?

1 MS. DEXTER: I don't know that we -- I will ask
2 this.

3 BY MS. DEXTER:

4 Q Other than the data that was referenced on
5 Page 204 that we discussed earlier?

6 HEARING OFFICER HALLORAN: 242?

7 MS. DEXTER: Well, wait a minute.

8 HEARING OFFICER HALLORAN: Let's take a break.

9 (There was a break taken,
10 after which the hearing
11 was resumed as follows:)

12 HEARING OFFICER HALLORAN: All right. We're back
13 on the record. I'm not sure where we are.

14 MS. DEXTER: Let me start over once again.

15 BY MS. DEXTER:

16 Q Other than the information that you
17 identified a few minutes ago, the other information in
18 the record regarding aquatic life speaks generally to
19 trends in Lake Michigan; is that correct?

20 A No.

21 Q We're just going to move on.

22 Are you familiar with the finding by the
23 United States geological survey in its status and
24 trends of prey fish population in Lake Michigan that,

1 "Total prey fish biomass in 2012 was the lowest since
2 our bottom trawl survey began in 1973, and follows five
3 years of sustained, record low biomass estimates?"

4 A Did you ask if I was familiar with that? Is
5 that your question?

6 Q Is that information that you reviewed in the
7 context of this permit?

8 A I'm not familiar with that.

9 MS. FRANZETTI: Counsel, I'm sorry. What page of
10 the record are you referring to?

11 MS. DEXTER: It's Page 1053 is the specific
12 Citation. I'll hand you the document.

13 BY MS. DEXTER:

14 Q So we have the document I've just handed you
15 which states on USGS letterhead that it is status and
16 trends of prey fish population in Lake Michigan 2012.
17 And I'm having you turn specifically to Page 1053, the
18 conclusion. The first sentence reading, "Total prey
19 fish biomass in 2012 was the lowest since our bottom
20 trawl survey began in 1973, and follows five years of
21 sustained, record low biomass estimates?"

22 Does this refresh your memory?

23 A This may be in the record, but no, this isn't
24 refreshing my memory.

1 Q Okay. We'll set that aside and look at
2 something else.

3 So I'm looking now at Page 618 of the
4 Administrative Record. Is this an email exchange
5 between yourself and Scott Twait at the bottom?

6 A Yes.

7 Q And Scott Twait is another IEPA staff member;
8 is that correct?

9 A Correct.

10 Q So I call your attention to the paragraph in
11 bold at the bottom of the page which reads, "There have
12 been significant changes in the aquatic community over
13 the past three decades. Most of the large-scale
14 changes are the result of changes in lake productivity.
15 As productivity declines, there is less available
16 nutrients/energy to move through the food web.
17 Declines in productivity are likely the contributing
18 factor to declines in the yellow perch and alewife
19 populations. Declines in alewife abundance
20 consequently affect salmon and trout populations.
21 These changes in productivity and lower trophic level
22 species composition (i.e., zooplankton and benthic
23 invertebrates) have been largely attributed to effects
24 of invasive species, (e.g., zebra and quagga mussels,

1 and spiny and fish hook water fleas.)"

2 The source of this information as stated
3 in here was the Illinois Department of Natural
4 Resources?

5 A Correct.

6 Q And in light of this description, where, if
7 anywhere, in the records does the Agency explain how a
8 balanced, indigenous population of shellfish, fish and
9 wildlife exists in the receiving waters of Lake
10 Michigan?

11 MS. FRANZETTI: Objection. Argumentative.

12 HEARING OFFICER HALLORAN: I think it's a yes or
13 no. You can answer if you are able. Overruled.

14 THE WITNESS: I'm not able to recall exactly in
15 the record where that's stated.

16 BY MS. DEXTER:

17 Q Are you aware of anywhere in the record where
18 the agency explains what constitutes a balanced,
19 indigenous population of shellfish, fish and wildlife
20 for the receiving waters in Lake Michigan?

21 A No, I'm not.

22 Q Okay. Now we will move from the thermal
23 discharges to discuss the impacts associated with the
24 cooling water intake system.

1 **Can you please explain what impingement**
2 **is?**

3 A Without having an exact definition in front
4 of me, it's when a fish gets stuck on say the intake
5 screen and gets impinged.

6 Q And entrainment, how would you describe
7 entrainment?

8 A Again, without having the exact definition, I
9 think it's when something gets stuck in the cooling
10 system.

11 Q And would you say in general -- I'm trying to
12 help you out here. In general, does impingement and
13 entrainment affect aquatic life by injuring, harming or
14 killing the aquatic life?

15 A Yes. They would have an effect on aquatic
16 life.

17 Q Is it your understanding that Clean Water Act
18 regulations required Illinois EPA to establish in the
19 permit an interim Best Technology Available limit for
20 the cooling water intake structures that minimizes
21 adverse environmental impact from impingement and
22 entrainment?

23 A No.

24 Q That's not your understanding of what IEPA

1 was meant to do?

2 A No, that's not my understanding.

3 Q Let me try in smaller pieces that question.

4 Is it your understanding that IEPA was
5 required to establish an interim Best Technology
6 Available limit for the cooling water intake structure?

7 MS. FRANZETTI: Objection. Asked and answered.

8 HEARING OFFICER HALLORAN: Overruled. You may
9 answer.

10 THE WITNESS: It may be similar. I'm not for sure
11 the exact wording of the requirement, but there was a
12 new cooling water intake structure rule passed in 2014.

13 BY MS. DEXTER:

14 Q I just want to make sure that we know what
15 we're talking about here.

16 I think that I will go to the fourth Order
17 in this proceeding. All right. This is from the
18 April 7th, 2016, Opinion and Order of the Board. I'm
19 going down to Page 13. I think I'm actually on a
20 different page. It states it here on Page 2 of the
21 Order.

22 It is probably elsewhere in here, but just
23 to make sure that we're talking about the same thing
24 here, the Board's Order, the third full paragraph, it

1 **says, "This Order makes findings on three legal**
2 **issues." And I'll skip the first two and just focus on**
3 **it says last, "The permit must contain conditions that**
4 **require the facility's cooling water intake structure**
5 **to use the interim Best Technology Available."**

6 **Does that make enough sense to you that we**
7 **can proceed with talking about that requirement?**

8 A Can I see the document you're referring to?

9 Q **I have it only on my computer here.**

10 HEARING OFFICER HALLORAN: Here you go.

11 MS. FRANZETTI: I'm just going to have a standing
12 objection to this line of questioning. This witness is
13 not a lawyer. You haven't even established that he's
14 reviewed this Board Opinion. It is not -- he's not
15 competent to give legal opinions as to what the 316(b)
16 regulations do or don't require.

17 MR. PETTI: Further, this is a document outside of
18 the record. It's an Order of this Board that was
19 contained in this record as part of this review. It
20 may be outside the scope of his knowledge.

21 HEARING OFFICER HALLORAN: Well, I'm taking
22 administrative notice that is an Order. You can answer
23 if you're able. Overruled.

24 THE WITNESS: I'm looking at page 13. Can you

1 tell me exactly what you're referring to?

2 BY MS. DEXTER:

3 Q It's the third full paragraph, the last
4 sentence. I'm sorry. Yes.

5 A Okay. I see that statement. What's your
6 question?

7 Q I am trying to establish that if I use the
8 term interim Best Technology Available in further
9 questions that you understand what I'm talking about.
10 I just want to make sure that you're familiar with it.

11 You haven't been able to answer my
12 questions that the Agency --

13 A That I know what you're talking about?

14 Q The Board has established that the Agency
15 must, or that the permit must contain conditions that
16 require the facility's cooling water intake structure
17 to use the interim Best Technology Available.

18 I'm about to ask you questions about what
19 the Agency did in that quest, and so far you haven't
20 been able to acknowledge that you understand what I'm
21 talking about.

22 MR. PETTI: I'm going to object to that statement.
23 I believe he's answered the questions that were asked.

24 HEARING OFFICER HALLORAN: I don't think he

1 answered the question.

2 THE WITNESS: What is the question?

3 BY MS. DEXTER:

4 Q I asked whether it's your understanding that
5 the Agency is required to establish the interim Best
6 Technology Available for the cooling water intake
7 structure. Your answer was no.

8 MR. PETTI: Objection. That was not the question.

9 HEARING OFFICER HALLORAN: Miss Dexter?

10 BY MS. DEXTER:

11 Q Is it your understanding -- I'm asking this
12 again to try and see; if that was not the right
13 question, I will ask the question again. Is it your
14 understanding that the Agency was required to establish
15 the interim Best Technology Available for the
16 facility's cooling water intake structure?

17 A Yes. It seems something along those lines.
18 I'm not for sure the exact wording of the requirement,
19 but we're required to follow the new 316(b) rule that
20 was adopted in 2014.

21 Q Okay. But if I refer to the interim Best
22 Technology Available requirement or the interim BTA
23 requirement, we can -- you understand what I mean when
24 I say that? I won't ask you to make any legal

1 **conclusions, but I need to establish this term so that**
2 **we can continue to talk about it.**

3 A Yes, we were required to make an interim BTA
4 determination.

5 **Q And is the interim BTA requirement that**
6 **Illinois EPA established for Waukegan Station contained**
7 **in Special Condition 7 of the permit?**

8 MS. FRANZETTI: Again, objection to form.

9 The witness testified that it's his
10 understanding that the Agency was required to make an
11 interim BTA determination. You're now asking him where
12 are the BTA requirements in the permit. It's not
13 consistent with the answer that he gave you.

14 MS. DEXTER: Let me back up.

15 BY MS. DEXTER:

16 **Q Are there interim BTA requirements in this**
17 **permit?**

18 A No.

19 **Q There are not?**

20 A No.

21 HEARING OFFICER HALLORAN: We'll take a break in
22 about eight minutes.

23 MS. DEXTER: It may be better to take a break now,
24 if that's okay with you?

1 HEARING OFFICER HALLORAN: That's fine. Let's
2 take a break now. Be back in ten, please.

3 (There was a break taken, after
4 which the hearing was resumed
5 as follows:)

6 HEARING OFFICER HALLORAN: We're back on the
7 record.

8 Mr. Rabins, you're still under oath. Miss
9 Dexter, you may proceed.

10 BY MS. DEXTER:

11 Q All right. I'd like to call your attention
12 to the document that starts on 1204, the Proposal for
13 Information Collection for Waukegan Station prepared
14 for Midwest Generation in June, 2005. This is a
15 proposal for a study, not the study itself, correct?

16 A Correct.

17 Q And the completed study is not in the record,
18 correct?

19 A Correct.

20 Q Now, I would like to call your attention to
21 the section that starts on Page 1215, Section 4.1, the
22 Waukegan Station Impingement Characterization Study
23 Sampling Plan. Does this sampling plan propose a
24 two-year study of impingement?

1 A Do you have a specific line?

2 Q If I can find it.

3 MS. FRANZETTI: Try the bottom of the page,
4 counsel.

5 BY MS. DEXTER:

6 Q Yes, that will work. The first sentence
7 under Overview.

8 A Yes.

9 Q All right. And at the top of Page 1216, do
10 you see that there are some preliminary results that
11 are included in this proposed sampling plan?

12 A Yes.

13 Q Do these look like the data that you referred
14 to earlier in the comment letter from Midwest
15 Generation about studies that were conducted?

16 A As I said earlier, it did not specify exactly
17 the source of that data.

18 Q We'll move on anyway.

19 This sampling proposes procedures to
20 analyze the data in the final study; is that correct?

21 A I guess I'm not sure.

22 Q Have you reviewed this study as part of
23 your --

24 A As far as my knowledge, the study was never

1 conducted.

2 Q And so rather than make you look for it,
3 there was a -- within here there are some procedures
4 that are proposed to analyze the data. If the study
5 was never completed, would it be your understanding
6 that that final analysis of the data was also not
7 completed, at least not available in the record?

8 A The data that was supposed to be collected
9 under the PIC, you're asking if that's available?

10 Q So we just referenced some preliminary data
11 in this proposal for sampling, and at this stage what
12 we have in this document, there's been no final
13 analysis of that data, correct, the analysis that was
14 proposed in the plan?

15 A As far as I know, the study described in the
16 PIC was not carried out.

17 Q And similarly, the quality assurance plan
18 that was proposed here is not reflected in any final
19 study? Let me rephrase that.

20 The study proposes to develop a Quality
21 Assurance Plan. Having no final study, we not only
22 don't have that Quality Assurance Plan, we also don't
23 have the verification of accuracy that the Quality
24 Assurance Plan would bring; is that correct?

1 MS. FRANZETTI: Objection. This calls for
2 speculation, and it's a mischaracterization of the
3 contents of the document.

4 They had a QAP plan. They started the
5 study. They did a year of it. And it's a
6 mischaracterization of this document to say that they
7 didn't have an adequate QAP plan.

8 HEARING OFFICER HALLORAN: I'll sustain on
9 mischaracterization and speculative. Do you want to
10 rephrase the question?

11 MS. DEXTER: Yes, I'll rephrase.

12 BY MS. DEXTER:

13 Q All right. On Page 1224, under the heading
14 Quality Assurance/Quality Control, it says, "A Quality
15 Assurance Plan will provide the guidance with respect
16 to overall QA/QC for this study. In accordance with
17 the QAP, a Standard Operating Procedure will be
18 prepared for this study. The Standard Opening
19 Procedure will integrate the general methodologies and
20 guidance given in the various items described above."
21 That was a paraphrase at that point.

22 Below there is a list of topics, and then
23 below that there are some bullets that say specific QC
24 activities to be performed will include these. There

1 are one, two, three, four, five, six bullets.

2 At this point in this proposal, they have
3 proposed a procedure for a Quality Assurance Plan, but
4 we don't, without the final study, have the actual
5 confirmation that that Quality Assurance Plan was
6 carried out; is that correct?

7 MS. FRANZETTI: Objection. Calls for speculation
8 by this witness.

9 HEARING OFFICER HALLORAN: Overruled. He may
10 answer if he's able.

11 THE WITNESS: I haven't seen the Quality
12 Assurance -- I haven't seen that these were carried
13 out.

14 MS. DEXTER: Okay. I have no further questions
15 for this witness.

16 HEARING OFFICER HALLORAN: Thank you Miss Dexter.
17 Mr. Petti?

18 MR. PETTI: Mr. Nagra is going to be doing the
19 questioning.

20 HEARING OFFICER HALLORAN: Mr. Nagra?

21 MR. NAGRA: One clarification, Officer. Would
22 this be our direct, or would this just be a cross?

23 HEARING OFFICER HALLORAN: Well, it's basically a
24 direct, but it's a cross because he's an adverse

1 witness.

2 MR. PETTI: I think so the question being do we
3 want to just call the witness one time instead of --

4 HEARING OFFICER HALLORAN: We've done that before.
5 That's entirely up to you as far as going outside
6 direct.

7 MR. PETTI: I would be in agreement, if everybody
8 else is, with just having one witness and we can do our
9 round robin back and forth for a couple rounds.

10 HEARING OFFICER HALLORAN: Miss Franzetti, Miss
11 Dexter, do you agree with that?

12 MS. FRANZETTI: No objection.

13 MS. DEXTER: I'm fine too.

14 MR. PETTI: I just wanted to be sure that we're
15 all on the same page.

16 HEARING OFFICER HALLORAN: So no objection to the
17 scope.

18 DIRECT EXAMINATION

19 By: Mr. Nagra

20 **Q Officer Rabins, can you state your**
21 **educational background, please?**

22 A I have Bachelor's in Science in Electrical
23 Engineering from Southern Illinois University in
24 Carbondale, and then a Master's in Business

1 Administration from the University of Illinois in
2 Springfield.

3 Q What are your job responsibilities at
4 Illinois EPA?

5 A I review and draft applications for NPDES
6 permits, prepare tax certifications, review and draft
7 state construction permits and state operating permits.

8 Q And what was your role in drafting and/or
9 approving the permit at issue in this proceeding?

10 A I reviewed the application and drafted a
11 permit and responded to comments and worked on
12 preparing the final permit. I think the permit
13 pre-dates my employment, so it may have been started
14 before I got there with the Agency.

15 Q Okay. Well, let's talk about some of the
16 things that you and the Agency looked at in preparing
17 this permit.

18 When the subject permit was up for
19 renewal, did the Agency, Illinois EPA, consider the
20 nature of the Waukegan facility's thermal discharge in
21 1978 when the Board originally granted the alternative
22 thermal effluent limitation?

23 A Yes.

24 Q And did the agency's consideration of the

1 nature of the Waukegan facility's thermal discharge in
2 1978 include consideration of the findings of studies
3 that formed the basis for the Board's 1978 Order
4 granting the original alternative thermal effluent
5 limitation?

6 A Yes.

7 Q Did the studies that formed the basis for
8 that Board's 1978 Order include thermal plume studies?

9 A Yes.

10 Q Did those thermal plume studies include
11 modeling of thermal levels in Lake Michigan?

12 A I'm not certain.

13 Q Okay. Can I refer you to Respondent's
14 Exhibit A on Page 203 of the record?

15 A Okay.

16 Q Mr. Rabins, do you recognize this document?

17 A Yes, I do.

18 Q What is it?

19 A It's the January 12th, 2012, comments to the
20 public notice draft permit.

21 Q Can I refer you to Bates number 203 of this
22 document? Does this -- to the best of your knowledge,
23 is the list that is produced on this page of major
24 studies performed and submitted in support of the

1 316(a) variance, the original 316(a) variance,
2 accurate?

3 A Can you repeat the question?

4 Q Yes. Does this look like an accurate list of
5 information that was submitted in support of the
6 original thermal variance in the 1970's?

7 A I'm not certain of the exact list or what was
8 submitted in support of the --

9 Q Does this page reflect that thermal plume
10 studies were submitted in support of the original
11 thermal variance?

12 A Yes.

13 Q During the most recent permit renewal
14 process, did the agency's consideration of the nature
15 of the Waukegan facility's thermal discharge in 1978
16 include consideration of the findings of various
17 studies of Lake Michigan currents that also formed the
18 basis for the Board's Order in 1978 granting the
19 original alternative thermal effluent limitation?

20 A Yes.

21 MS. DEXTER: I would object. The findings of
22 these studies are not contained in the Administrative
23 Record.

24 MR. NAGRA: That's wrong.

1 I'm wording my questions in a very
2 specific way. My question asks, did the Agency's
3 consideration include consideration of the findings of
4 various studies that formed the basis for the Board's
5 1978 Order?

6 HEARING OFFICER HALLORAN: Overruled. You can
7 answer if you're able.

8 MR. NAGRA: Mr. Rabins, let's switch gears and
9 talk about --

10 HEARING OFFICER HALLORAN: Mr. Petti.

11 MR. PETTI: There's a pending question. Can we
12 direct the witness to answer the question?

13 THE WITNESS: Yes.

14 BY MR. NAGRA:

15 Q Let's switch gears to the present day.

16 When the subject permit was up for
17 renewal, did Illinois EPA consider the nature of the
18 subject facility's current thermal discharge relative
19 to the nature of its 1978 thermal discharge?

20 A Yes.

21 Q Can you explain what a heat rejection rate
22 is?

23 A It's the quantity of heat rejected per unit
24 time.

1 Q Okay. And did the Agency's comparison
2 between the nature of the 1978 thermal discharge and
3 the nature of the present day thermal discharge include
4 consideration of the Waukegan facility's heat rejection
5 rate over time?

6 A Yes.

7 Q What did that comparison reveal with respect
8 to the Waukegan facility's heat rejection rate over
9 time?

10 A There was a decrease.

11 Q And Mr. Rabins, can you explain what a
12 cooling water discharge rate is?

13 A It's the volume of cooling water discharged
14 per unit time.

15 Q And did the Agency's comparison between the
16 nature of the 1978 thermal discharge and the nature of
17 the present day thermal discharge also include
18 consideration of the Waukegan facility's cooling water
19 discharge rate over time?

20 A Yes.

21 Q What did that comparison reveal with respect
22 to the Waukegan facility's cooling water discharge rate
23 over time?

24 A That there was a decrease.

1 Q Okay. And now I'd like to ask you a few
2 questions about the balanced, indigenous population.
3 And first I'm going to start off with the balanced,
4 indigenous population as it existed in 1978.

5 During the permit renewal process, did the
6 Agency consider the balanced, indigenous population of
7 shellfish, fish and wildlife at the time the Board
8 granted the original alternative thermal effluent
9 limitation in 1978?

10 A Yes.

11 Q Did the Agency's consideration of the
12 balanced, indigenous population of shellfish, fish and
13 wildlife at the time the Board granted the alternative
14 thermal effluent limitation in 1978 include
15 consideration of the field study data and study
16 findings concerning Lake Michigan organisms that formed
17 the basis for the Board's Order granting the original
18 thermal relief?

19 A Yes.

20 Q Okay. And now I'd like to change gears to
21 the present day.

22 During the permit renewal process, did the
23 Agency consider the present day balanced, indigenous
24 population of shellfish, fish and wildlife in Lake

1 **Michigan?**

2 A Yes.

3 MS. DEXTER: Objection. That is contrary to the
4 response I got when I asked him.

5 HEARING OFFICER HALLORAN: Well, the record will
6 so note.

7 MS. DEXTER: All right.

8 HEARING OFFICER HALLORAN: You can ask again on
9 your redirect. Overruled.

10 BY MR. NAGRA:

11 Q Did the Agency's comparison between the
12 balanced, indigenous population of shellfish, fish and
13 wildlife at the time the Board granted the alternative
14 thermal effluent limitation in 1978 and the balanced,
15 indigenous population of shellfish, fish and wildlife
16 today reveal any changes in Lake Michigan's aquatic
17 community?

18 A Yes.

19 Q Okay. And are those changes noted in the
20 record?

21 A Yes.

22 Q Okay. Mr. Rabins, can I please refer you to
23 Page 673 of the record, Respondent's Exhibit E?
24 Mr. Rabins, do you recognize this document?

1 A Yes.

2 Q What is it?

3 A It's a page of the Responsiveness Summary.

4 Q Okay. And can I please refer you to Item
5 Number 43 on Page 673?

6 A Yes.

7 Q Is this an accurate summary of the changes in
8 Lake Michigan's aquatic community that the Agency
9 considered during the permit renewal process?

10 A Yes.

11 Q Okay. And can you read to me what those
12 changes were?

13 A "There have been significant changes in the
14 aquatic community over the past three decades. Most of
15 the large-scale changes are the result of changes in
16 lake productivity. As productivity declines, there is
17 less available nutrients/energy to move through the
18 food web. Declines in productivity are likely the
19 contributing factors in declines in yellow perch and
20 alewife populations. Declines in alewife abundance
21 consequently affect salmon and trout populations.
22 These changes in productivity and lower trophic level
23 species composition (i.e., zooplankton and benthic
24 invertebrates) have been largely attributed to effects

1 of invasive species (e.g., zebra and quagga mussels,
2 and spiny and fish hook water fleas.)"

3 Q Thank you.

4 Is there any basis in the record on which
5 to conclude that the changes identified in Item
6 Number 43 on Page 673 were related to the Waukegan
7 facility's thermal discharge?

8 A No.

9 Q To what causes can those changes be
10 attributed, based on the information that's been
11 presented on Page 673 of the record?

12 A "To the effects of invasive species, (e.g.,
13 zebra and quagga mussels, and spiny and fish hook water
14 fleas.)"

15 Q Thank you.

16 What years did the previous permit cycle
17 for this facility encompass?

18 A I'm not certain of the exact dates. I think
19 it's approximately 2000, 2005.

20 Q Can I please refer you to Page 1216 of the
21 record? This, just to refresh your recollection, I
22 believe is a document that petitioners also presented
23 to you during their direct examination.

24 MS. FRANZETTI: Counsel, just for the record,

1 what's the title of the document?

2 MR. NAGRA: It's Proposal For Information
3 Collection.

4 MS. FRANZETTI: Thank you.

5 THE WITNESS: Okay.

6 BY MR. NAGRA:

7 Q Do you recognize this document, Mr. Rabins?

8 A Yes.

9 Q And did the Agency's consideration of the
10 present-day balanced, indigenous population of
11 shellfish, fish and wildlife in Lake Michigan include
12 consideration of the data contained in this document
13 that Midwest Generation collected between 2003 to 2005
14 during that two-year impingement study?

15 A Can you say that again?

16 Q Sure.

17 Did the Illinois EPA's consideration of
18 the present-day balanced, indigenous population of
19 shellfish, fish and wildlife in Lake Michigan include
20 consideration of the data on Page 1216 that Midwest
21 Generation collected from 2003 to 2005 during a
22 two-year impingement study?

23 A Yes.

24 Q Okay. Would it be fair to say that the data

1 collected by Midwest Generation from 2003 to 2005
2 during that two-year impingement study indicate that
3 the fish community near the Waukegan Station did not
4 fundamentally change relative to the fish community
5 that existed in the late 1970's when the original
6 alternative thermal effluent limitation was granted?

7 A Yes.

8 Q And Mr. Rabins, can I please refer you back
9 to Page 204 of the record, Respondent's Exhibit A? And
10 may I please refer you to the second to the last
11 paragraph beginning with the 2003 to 2005 field data?

12 A Okay.

13 Q I'll give you a second to review that
14 paragraph before I proceed with my questioning.

15 A Okay.

16 Q Did the data collected by Midwest Generation
17 from 2003 to 2005 during a two-year impingement study
18 indicate that most Lake Michigan open water or deep-
19 water species like salmonids, sculpins, and coregonids
20 are impinged in low numbers?

21 A Yes.

22 Q What do the low impingement rates of these
23 open water or deepwater species indicate?

24 A According to Midwest Generation, they

1 indicate these species will not be exposed to the
2 Station's thermal plume, and therefore, at minimal
3 rest.

4 Q And may I please refer you to Page 206 of the
5 same document, Bates number 206; and specifically, of
6 the second to the last paragraph?

7 A Okay.

8 Q Did the Agency's consideration of the
9 present-day balanced, indigenous population of
10 shellfish, fish and wildlife in Lake Michigan include
11 consideration of the summary of data collected by the
12 Illinois Department of Natural Resources during
13 electrofishing studies in the Waukegan harbor that
14 appears on this page?

15 A Yes.

16 Q And may I please refer you back to Page 204?
17 Did the Agency's consideration -- I'm
18 sorry. Specifically, I'm referring you to the third to
19 the last paragraph that begins with one of the -- that
20 and the paragraph above it.

21 "Midwest Generation acknowledges that the
22 field study data." And then that paragraph into the
23 paragraph below that is what I'm going to be referring
24 to. I'll give you a second to review those two

1 paragraphs.

2 A Okay.

3 Q Did the Illinois EPA's consideration of the
4 present-day balanced, indigenous population of
5 shellfish, fish and wildlife in Lake Michigan include
6 consideration of the data collected by USGS in 2009 and
7 summarized on Page 204 as part of a trawling program?

8 A Yes.

9 Q Mr. Rabins, following your review of the
10 information we've discussed, did you believe you had
11 sufficient information to determine that there was no
12 material change that would cause appreciable harm to
13 the balanced, indigenous population of shellfish, fish
14 and wildlife in Lake Michigan?

15 A Yes.

16 Q Did the absence of a recent thermal plume
17 model deprive you of necessary information to make that
18 determination?

19 A No.

20 Q Okay. Mr. Rabins, I'm going to shift my
21 questioning to the Waukegan facility's cooling water
22 intake structure.

23 During the permit renewal process, was
24 Illinois EPA generally aware of the mechanics of the

1 **Waukegan facility's cooling water intake structure?**

2 A Can you clarify what do you mean by
3 mechanics?

4 Q The manner in which it operates?

5 A Yes.

6 Q Okay. Mr. Rabins, I'd like to refer you to
7 Page 666 of the record. Do you recognize this
8 document?

9 A Yes.

10 Q What is it?

11 A It's Page 11 of the Responsiveness Summary.

12 Q And can I please refer you to Item Number 15
13 on Page 666 of the record?

14 A Yes.

15 Q Is this an accurate summary of the mechanics
16 of the Waukegan facility's cooling water intake
17 structure?

18 A Yes.

19 Q And can you please summarize for me the
20 operation of that system?

21 A "The cooling system for each unit is designed
22 as a one-through system. Cooling water from the lake
23 is withdrawn from an on-shore location, and passes
24 through the intake canal into a constructed embayment

1 prior to entering the plant through two intakes, one
2 for Unit 7 and one for Unit 8. Bar racks are located
3 in front of the traveling screens at each intake. Each
4 screenhouse is equipped with fixed trash bars,
5 through-flow traveling screens, and a high-pressure
6 wash-water system. All screens are made with number
7 #12 gauge wire and 3/8-inch openings. The traveling
8 screens are oriented parallel to the face of the
9 screenhouse. The intake withdraws water from the
10 entire water column.

11 "Two pumps provide cooling water to Unit
12 8, whereas four pumps provide cooling water to Unit 7,
13 for a total of six pumps. Unit 7 has one traveling
14 screen and pump bay for each pump, whereas, Unit 8 has
15 two bays each containing one pump and protected by two
16 traveling screens. Screen wash-water from the
17 traveling screens for each unit flows into separate
18 trash baskets. The design through screen velocity at
19 critical low water level is 2.0 and 1.8 feet per second
20 for Units 7 and 8, respectively."

21 Q Thank you.

22 When the subject permit was up for
23 renewal, or during the permit renewal process for the
24 subject permit, did the Illinois EPA make an interim

1 **Best Technology Available determination with respect to**
2 **the Waukegan facility's cooling water intake structure**
3 **that was based on the Illinois EPA's best professional**
4 **judgment?**

5 A Yes.

6 MS. DEXTER: Objection. Also inconsistent with
7 the witness's previous testimony.

8 HEARING OFFICER HALLORAN: The record will so
9 reflect, and you can ask him on redirect.

10 MS. DEXTER: I will do so.

11 BY MR. NAGRA:

12 **Q Mr. Rabins, can I please refer you to the**
13 **document that begins on Page 687 of the record that is**
14 **Respondent's Exhibit H?**

15 A Yes.

16 **Q Do you recognize this document?**

17 A Yes.

18 **Q What is it?**

19 A It's reissued permit issued on March 25th,
20 2015 to Midwest Generation to operate the Waukegan
21 Generating Station.

22 **Q And can I please specifically refer you to**
23 **Page 696 of this document, and more specifically, to**
24 **Special Condition 7 on the bottom half of that page?**

1 A Okay.

2 Q You stated that the Agency made an interim
3 Best Technology Available determination with respect to
4 the subject facility's cooling water intake structure
5 that was based on the Illinois EPA's best professional
6 judgment.

7 My question is, is that determination
8 reflected in Special Condition 7 that appears on
9 Page 696 of the Waukegan facility's permit?

10 A Yes.

11 Q Okay. Was the Illinois EPA's interim Best
12 Technology Available determination based on the results
13 of any impingement and entrainment studies conducted at
14 the subject facilities?

15 A It was based on impingement data that we
16 have. I don't know if it was a study.

17 Q Okay. And was some of that data collected in
18 the 1970's?

19 A Yes.

20 Q And was some of that data collected from 2003
21 to 2005?

22 A Yes.

23 Q Okay. Is there any basis in the record on
24 which to conclude that the cooling water intake

1 structure at the Waukegan facility does not meet the
2 interim Best Technology Available standard?

3 A No.

4 Q Mr. Rabins, can you explain what closed cycle
5 cooling is?

6 A Closed cycle cooling is where the cooling
7 water is withdrawn from source water and returned to
8 the source water and the source water is not waters of
9 the U.S.

10 Q Okay. What if anything did Illinois EPA
11 determine with respect to closed cycle cooling as a
12 possible interim Best Technology Available?

13 A It was considered. It's one of the options
14 under the new, the 2014 cooling water intake structure
15 rule.

16 Q Okay. Mr. Rabins, can I refer you back to
17 Respondent's Exhibit H, and specifically Page 695 of
18 the record?

19 A Okay.

20 Q I'm going to jump back to 316(a) for a
21 second. You were asked earlier about some information
22 collection that Midwest Generation will be required to
23 do going forward.

24 My question for you is, is the information

1 that Midwest Generation is required to collect going
2 forward that's reflected in Special Condition 4 on
3 Page 695 of the record, was that information necessary
4 for you to make your determination during this most
5 recent permit cycle that there was no material change
6 that would cause an appreciable harm to the balanced,
7 indigenous population of shellfish, fish and wildlife
8 in Lake Michigan?

9 A No.

10 MR. NAGRA: Thank you, Mr. Rabins. No further
11 questions at this time.

12 HEARING OFFICER HALLORAN: All right. Miss
13 Franzetti?

14 CROSS EXAMINATION

15 By: Ms. Franzetti

16 Q Good morning, Mr. Rabins. My name is Susan
17 Franzetti. I am one of the attorneys for Midwest
18 Generation, who is a respondent in this proceeding.

19 I wanted to ask you a little bit about
20 Mr. Twait's role with respect to the information that
21 was gathered by the Agency from the IDNR. And if you
22 give me a minute, I'll try and find what exhibit number
23 that is. You have in front of you a book of the
24 respondent's exhibits, and you want to look at Exhibit

1 D.

2 A Okay.

3 Q You've been asked some questions previously
4 by both Miss Dexter and the Agency counsel on this
5 document, but I want to focus on the email that's above
6 the information you were asked about with regard to the
7 response to comment number 43, and that's the email
8 from Scott Twait to you dated September 23rd, 2014.
9 And it appears Mr. Twait is saying who he got the
10 information from and citing a Mr. Steve Robillard,
11 project specialist of the IDNR.

12 Can you explain to me how Mr. Twait became
13 involved here and what he did with respect to obtaining
14 this information?

15 A The comment, this response was forwarded to
16 me by Twait, by Scott Twait. What he did to get the
17 answer, I'm not -- I don't have any knowledge of that.

18 Q Right. Other than what he's telling you he
19 did, correct, in this email?

20 A Right. He says he got the information from
21 here, but that's all I know.

22 Q Right. But that's my point.

23 But how did Mr. Twait become involved?
24 Did you ask Mr. Twait to follow up and gather

1 information with respect to the question as to whether
2 the aquatic community in Lake Michigan as a whole had
3 experienced any changes?

4 A We have personnel at the Agency that prepare
5 a list of questions that need to be answered for the
6 Responsiveness Summary. Question 43 was forwarded to
7 Scott Twait, and that is the response he provided.

8 Q Okay. And who decides who the questions that
9 arise out of the public hearing are forwarded to?

10 A There is no designated decider at the Agency.

11 Q Okay. Do you have any role in that?

12 A Yes, I have a role in that.

13 Q Okay. Did you think it was appropriate that
14 question 43 be directed to Mr. Twait?

15 A It may have been -- I may have forwarded the
16 question. I just don't recall.

17 Q No, that's okay. My question is a little
18 different.

19 Since you are involved in it, do you think
20 it was appropriate for this type of question to go to
21 Mr. Twait?

22 A Yes, I do think it was appropriate to go to
23 Mr. Twait.

24 Q Okay. Can you explain to us why a question

1 about changes in the aquatic community was
2 appropriately directed to Mr. Twait, as compared, for
3 example, why didn't you just deal with it?

4 A Scott Twait works in the water quality
5 standards unit and was in a better position to answer a
6 question about Lake Michigan; whereas, the permitting
7 staff, we deal with specifics about the plant and the
8 discharges.

9 Q Okay. Based on just your experience with
10 Mr. Twait -- let me back up. Have you worked with
11 Mr. Twait before on other permit matters?

12 A Yes.

13 Q Based on that experience, do you think
14 Mr. Twait is more knowledgeable than you are about
15 aquatic life, aquatic biology issues?

16 A Yes.

17 Q And when this question was directed to
18 Mr. Twait, he was aware, wasn't he, that this question
19 related to the Midwest Generation Waukegan Station and
20 questions arising in regard to the renewal of its
21 thermal alternative effluent limit?

22 A I would have no knowledge of what Scott Twait
23 is aware of.

24 Q But he was directed the questions arising out

1 of the Waukegan public hearing, right? Or do you just
2 send him a question out of the blue like this?

3 A The question may have been forwarded to him.
4 I may have forwarded the question to him. Does that
5 answer your question?

6 Q Well, I guess what I'm trying to understand
7 is, wouldn't Scott Twait be told what the context was
8 of this question he was being asked to answer, or no,
9 he's just told here's the question, you don't get any
10 other information?

11 A I mean you seem to be asking generality,
12 would he, in any case. I don't know what he would be
13 in any case.

14 In this case. I don't recall specifically
15 if I just forwarded him the question, or if we had a
16 discussion about it. You know, there's 60 or 70
17 questions in this. I just don't remember exactly the
18 discussion behind each and every one of those.

19 Q Okay. I understand. I understand. But you
20 may have had a discussion with Mr. Twait about this
21 matter?

22 MS. DEXTER: I'm going to object.

23 HEARING OFFICER HALLORAN: I'm going to sustain
24 it.

1 Mr. Rabins is doing a good job objecting
2 in his own way. But Miss Franzetti, I'm not sure these
3 questions are good questions for him. He's
4 speculating. He says he doesn't know.

5 Are you laughing at my question, or what
6 are you laughing at?

7 MS. FRANZETTI: I'm laughing at your
8 characterization of my questions as to whether they are
9 good or not good or fair.

10 HEARING OFFICER HALLORAN: Okay. Could you
11 rephrase?

12 MS. FRANZETTI: Yes.

13 HEARING OFFICER HALLORAN: I sustained her
14 objection, but please don't laugh or roll your eyes.

15 MS. DEXTER: Can I clarify my objection?

16 HEARING OFFICER HALLORAN: Sure.

17 MS. DEXTER: My objection is further that she's
18 asking the witness to testify about facts that are not
19 in the record, that we are sort of building back into
20 something that I think we can go a certain amount to
21 establish what we're looking at here, but I think
22 she's --

23 HEARING OFFICER HALLORAN: I gave a little
24 latitude.

1 MS. FRANZETTI: I don't understand what's going
2 beyond the record.

3 HEARING OFFICER HALLORAN: Well, as far as --
4 Sustained. Do you want to rephrase?

5 BY MS. FRANZETTI:

6 Q Mr. Rabins, do you recall having any
7 conversations with Scott Twait about this permit; just
8 any conversations, not yet about --

9 A Yes, I do.

10 Q And what do you recall, generally, what the
11 topic of those discussions would have been with
12 Mr. Twait?

13 MS. DEXTER: Again, I'm going to object. She's
14 asking the witness to testify about conversations that
15 are not included in the record.

16 HEARING OFFICER HALLORAN: If the witness can
17 answer, overruled, he may. But we've already gone down
18 this avenue, but you may proceed, Miss Franzetti.

19 BY MS. FRANZETTI:

20 Q I'm sorry. Do you recall the question,
21 Mr. Rabins? It's just do you recall anything about the
22 topics you would have discussed with Mr. Twait about
23 this permit?

24 A Yes. Me and Scott Twait would have discussed

1 this permit.

2 Q And do you recall anything further about what
3 you would have discussed with Mr. Twait about this
4 permit?

5 A We would have discussed issues regarding
6 water quality standards, whether they apply or not;
7 issues about Lake Michigan.

8 Q Mr. Rabins, you were asked some questions
9 earlier with respect to the Board's Order and with
10 respect to requirements being included in the permit
11 regarding interim BTA. Am I understanding your
12 testimony correctly that, as you understood the
13 applicable 316(b) regulation, the regulation was not
14 requiring the Agency to put into the permit interim BTA
15 requirements?

16 A Can you repeat that one more time? That was
17 pretty long.

18 Q Okay. I'm handing you a page of the federal
19 316(b) regulation adopted in 2014 and direct your
20 attention, it's actually highlighted, to the section
21 entitled interim BTA requirements. Could you read that
22 out loud for the record?

23 A The highlighted portion?

24 Q Yes.

1 A "(H interim BTA requirements.) An owner or
2 operator of a facility may be subject to an interim BTA
3 requirement established by the director in the permit
4 on a site specific basis."

5 Q Is your understanding of what the Agency was
6 supposed to do with regard to interim BTA consistent
7 with what you've just read in the regulation itself?

8 A I'd like to see the rest of it. It's just
9 hard to get context when I'm only seeing the back half
10 of it. If I saw the rest of it --

11 Q Let me rephrase the question.

12 Is there anything you disagree with in
13 that section of the regulations?

14 A Do I disagree with the regulation? How would
15 you agree or disagree with a regulation? I guess I'm
16 confused.

17 Q Well, you could. You could say I don't agree
18 that that's what the regulation provides.

19 My question is just simply as you read
20 that, is it consistent with your understanding of
21 interim BTA?

22 A Yes, that's interim BTA.

23 Q Okay. That's all I was asking for.

24 Mr. Rabins, there's also several documents

1 in the record. The first one is marked as Agency
2 Exhibit A. That's the January 12th, 2012, Midwest
3 Generation comment letter. And you've been asked some
4 questions about this letter. I'm going to not repeat
5 those. But I do want to make sure it's clear, you did
6 review the information that was submitted in this
7 letter relating to the renewal of the 316(a) thermal
8 variance, correct?

9 A Correct.

10 Q Okay. And then with respect to there was a
11 public hearing held, and then Midwest Generation also
12 submitted additional information to the Agency in
13 comments that are contained in Exhibit G in your
14 exhibit book. These are the July 22nd, 2013, Midwest
15 Generation comments that were submitted to the Agency.
16 Did you also consider the information contained in this
17 letter with respect to the issues relating to renewal
18 of the 316(a) alternative thermal variance?

19 A Yes.

20 Q Mr. Rabins, you were asked some questions
21 earlier today by Miss Dexter about changes at the
22 facility generally. With respect to changes at the
23 facility that would have had an impact on the thermal
24 discharge, things like changing the condensers,

1 changing things that would influence the temperature
2 particularly increasing in the effluent, wouldn't
3 Midwest Generation have been obligated to disclose
4 those types of changes under the applicable Agency
5 regulations with respect to NPDES permits?

6 A Yes.

7 Q And to your knowledge, there were no such
8 disclosures made by Midwest Generation, correct?

9 A Changes were made at the facility which
10 affected the thermal discharge.

11 Q Yes, but not increasing the temperature of
12 the thermal discharge, correct?

13 A Correct.

14 Q Now, again earlier you were asked questions
15 about operations at the plant, and you made reference
16 to temperature-monitoring data that existed. Were you
17 referring to the fact that in the permit that's been
18 issued, there was a requirement to monitor and report
19 daily maximum temperatures?

20 A Yes, I was referring to that requirement.

21 Q And was there a similar requirement in the
22 prior permit?

23 A Which permit? Like can you say the date?

24 Q The NPDES permit that expired in or about

1 2005.

2 A Okay. So in that permit --

3 Q But was administratively continued until this
4 permit was issued in 2015.

5 A Okay.

6 Q Was there thermal data that was submitted to
7 the Agency under the prior permit?

8 A Yes.

9 Q Okay. Was there also thermal data -- and
10 when I'm saying thermal data, I mean thermal effluent
11 data that was included in the initial permit renewal
12 application submitted by Midwest Generation to the
13 Agency?

14 A Yes.

15 Q And was all of that considered as part of the
16 Agency's decision as to whether or not to renew the
17 thermal alternate effluent limitation?

18 A Yes.

19 Q Is it your understanding that that kind of
20 thermal effluent data that we've just been covering in
21 these questions is included within the meaning of
22 actual operating experience?

23 A Yes.

24 Q Mr. Rabins, you were asked some questions

1 about closed cycle cooling. Do you have any
2 understanding as to whether closed cycle cooling, the
3 changed to closed cycle cooling, would fall within the
4 intended meaning of interim BTA versus BTA?

5 A Yes, it would fall within the meaning of
6 interim BTA.

7 Q And can you explain what the basis of your
8 understanding is?

9 A If a facility changed to closed cycle
10 cooling, that would meet the requirement for Best
11 Technology Available.

12 Q Right. Do you understand I'm drawing a
13 distinction between interim BTA versus the BTA
14 requirements?

15 A It would meet interim BTA, it would meet BTA.

16 Q Oh, okay. I understand. You're viewing --
17 let me state it as a question.

18 BTA is a more stringent standard than
19 interim BTA?

20 A No.

21 Q Can you explain the difference to me, what
22 your understanding is of the difference?

23 A Interim BTA is a requirement under the new
24 2014 316(b) rule. And it's based on best professional

1 judgment. BTA has specific requirements under the new
2 rule.

3 Q Okay. Thank you.

4 MS. FRANZETTI: That's all the questions I have.

5 HEARING OFFICER HALLORAN: Miss Dexter, your
6 redirect of your adverse, please.

7 MS. DEXTER: Yes.

8 REDIRECT EXAMINATION

9 By: Ms. Dexter

10 Q Okay. I'd like to start with a question
11 about we were just talking about the thermal discharge
12 monitoring report data that's contained in the record
13 that you testified the Agency considered. Within the
14 confines of the record, can you explain what the Agency
15 did to consider that data?

16 A The data was reviewed and the results were
17 used as part of the basis for reissuing the alternative
18 thermal effluent.

19 Q But there was nothing along the lines of
20 modeling or any way of evaluating analyzing that
21 effluent data compared to the receiving waters,
22 correct?

23 MS. FRANZETTI: Objection to form. I think it's
24 vague and confusing what you're --

1 HEARING OFFICER HALLORAN: Overruled. You can
2 answer if you are able.

3 THE WITNESS: Can you re-ask the question?

4 BY MS. DEXTER:

5 Q Yes. Did the Agency do any modeling of the
6 effluent data or any other way to evaluate the impact
7 of those thermal values that you have on the receiving
8 water?

9 A No, not to my knowledge.

10 Q Now we'll go back to the interim BTA
11 question.

12 We've heard some inconsistent things about
13 whether or not there is an interim BTA determination in
14 the permit.

15 MS. FRANZETTI: Objection to counsel's
16 characterization of the testimony.

17 MR. PETTI: Objection.

18 THE COURT: Sustained.

19 BY MS. DEXTER:

20 Q Is there or isn't there an interim BTA
21 determination in the permit?

22 A There is.

23 Q There is. And is that contained in Special
24 Condition 7 of the permit? That's on Page 696 of the

1 **Administrative Record.**

2 MR. PETTI: For the record, I'll object. It was
3 asked and answered earlier.

4 HEARING OFFICER HALLORAN: Overruled.

5 THE WITNESS: Yes.

6 BY MS. DEXTER:

7 Q Okay. Isn't it true that Special Condition 7
8 doesn't contain any language that's provides what
9 characteristics of the cooling water intake structure
10 represent Best Technology Available to minimize adverse
11 environmental impact from impingement and entrainment?

12 MS. FRANZETTI: Objection, form. She's
13 referencing BTA and not the applicable standard the
14 Board found to apply in its Summary Judgment opinion of
15 interim BTA.

16 HEARING OFFICER HALLORAN: He can answer if he's
17 able. Overruled.

18 THE WITNESS: Repeat the question.

19 MS. DEXTER: I can read it back. I'll even add
20 the word interim to be clear.

21 BY MS. DEXTER:

22 Q Isn't it true that Special Condition 7 does
23 not contain any language specifying what
24 characteristics of the cooling water intake structure

1 represent the interim Best Technology Available to
2 minimize adverse environmental impact from impingement
3 and entrainment?

4 A Special Condition 7 states that we've
5 determined that the operation of cooling water intake
6 structure meets the equivalent of Best Technology
7 Available.

8 Q Okay. That's not exactly what I asked.

9 Is there anywhere in Special Condition 7
10 where that cooling water -- the attributes of that
11 cooling water intake structure or the specific
12 operation qualities of the cooling water intake
13 structure are defined?

14 A What's an operational quality?

15 Q You responded that the agencies have
16 determined that the operation of the cooling water
17 intake structure meets the Best Technology Available.

18 MR. PETTI: Objection. Misstates the record.

19 HEARING OFFICER HALLORAN: Correct. I'll sustain
20 it.

21 MS. DEXTER: Can I just clarify what your
22 objection is? Do you want me to read the rest of the
23 sentence?

24 MR. PETTI: You said BTA again; you didn't say

1 interim BTA.

2 MS. DEXTER: I'm reading out of Special Condition
3 7. Here, I'll put quotes around it.

4 HEARING OFFICER HALLORAN: Where in the record?

5 MS. DEXTER: It goes on to Page 696.

6 BY MS. DEXTER:

7 Q Special Condition 7, it states, "Based on
8 available information, the Agency has determined that
9 the operation of the cooling water intake structure
10 meets the equivalent of Best Technology Available, BTA,
11 in accordance with the best professional judgment
12 provisions of 40 CFR 125.3 and 40 CFR 125.90(b) based
13 on information available at the time of permit
14 reissuance."

15 And I'm asking if there's anything in
16 Special Condition 7 that actually defines what that
17 operation of the cooling water intake structure is?
18 What are the attributes that make it BTA?

19 A No, that is not specified in Special
20 Condition 7.

21 Q Thank you.

22 So when you answered Mr. Nagra's question
23 about stating there is no evidence that the existing
24 technology does not meet interim BTA requirements, and

1 I will admit I don't have the record in front of me, so
2 I'm doing my best to characterize what you said. What
3 was the legal standard you were measuring that against?
4 How did you decide that there is no evidence in the
5 record that the existing technology does not meet the
6 interim BTA requirements?

7 A If you're asking what did I look at in the
8 record to determine if the cooling water intake
9 structure, like what did I look at to see that it does
10 meet interim?

11 Q No. I'm asking for the basis of the
12 statement that you made that there is no evidence in
13 the record that the existing technology does not meet
14 the interim BTA requirements.

15 A We reviewed the record and did not find any
16 evidence to support that.

17 Q But what did you compare it against? What's
18 the yardstick that made you decide whether or not
19 interim BTA requirements were met?

20 A It's an interim BTA determination based on
21 best professional judgment because there is no
22 yardstick compared to a Best Technology Available
23 determination where the, using your words, yardstick is
24 defined in the new rule.

1 So did we have any information in the
2 record that shows that the operation of the cooling
3 water intake structure is causing excessive impingement
4 or entrainment, and we did not find that in the record.

5 **Q Okay. Under that description you just gave**
6 **where it's based on best professional judgment, is**
7 **there any circumstance under which there could be**
8 **evidence that existing technology doesn't meet interim**
9 **BTA?**

10 MR. NAGRA: Objection. Calls for speculation.

11 HEARING OFFICER HALLORAN: He can answer if he
12 can. Can you?

13 THE WITNESS: I can't possibly speak to any
14 scenario. I mean you could plug in any scenario. I
15 can't speak of any and all scenarios.

16 BY MS. DEXTER:

17 **Q We'll move on.**

18 **Would I be correct in observing that the**
19 **record contains no analysis-comparing technologies that**
20 **were considered as potential interim BTA requirements**
21 **for Waukegan Station?**

22 A No, there was not a comparison of
23 technologies for the interim Best Technology Available
24 determination.

1 Q Now, we'll look a little bit at some examples
2 that are in the record.

3 So isn't it true that in general, intakes
4 located in nearshore areas will have greater ecological
5 impact than intakes located offshore because nearshore
6 areas are more biologically productive and have higher
7 concentration of organisms?

8 A I'm not knowledgeable about the generalities
9 about cooling water intake structures.

10 Q I am going to refer you to a document on
11 Page 1058 of the Administrative Record. Do you
12 recognize this as a document from USEPA regarding Clean
13 Water Act 316(b) which deals with cooling water intake
14 structure?

15 A That's what it says. I mean I'm not familiar
16 with it.

17 Q Okay. Can you turn to Page 1059?

18 A Yes.

19 MS. FRANZETTI: Just a standing objection, because
20 this document is entitled a document that applies to
21 new facilities. The Waukegan facility is not a new
22 facility. I don't think this line of questioning is
23 relevant.

24 HEARING OFFICER HALLORAN: So noted. You can

1 proceed.

2 BY MS. DEXTER:

3 Q So Section 11.1 on Page 1059 is titled
4 cooling water intake structure characteristics that
5 includes the magnitude of impingement and entrainment.
6 And I will note that I did just read out those acronyms
7 for the sake of everyone here.

8 So can you please read the second sentence
9 in the fourth paragraph below 11.1? I'm sorry, fifth
10 paragraph.

11 A "In general, intakes located in nearshore
12 areas (riparian or littoral zones) will have greater
13 ecological impact than intakes located offshore,
14 because nearshore areas are more biologically
15 productive and have higher concentrations of
16 organisms."

17 Q Can you identify any record of evidence that
18 contradicts that statement?

19 A Not off the top of my head, no.

20 Q Turning to back to the Responsiveness Summary
21 on Page 666, we have a description of the cooling water
22 intake structure at Waukegan Station.

23 Is it fair to say that the onshore
24 location of the intake structure is not a feature that

1 minimizes adverse environmental impact?

2 A I disagree with that. I don't know whether
3 it is exactly onshore. It's located in a constructed--

4 Q I'm reading the sentence that says cooling
5 water from the lake is withdrawn from an onshore
6 location. Are you saying that's incorrect?

7 A Yes, I see that statement.

8 Q Okay. And is it fair to say that given the
9 onshore location of the intake structure -- or sorry.

10 Let me start over again. Is it fair to
11 say that the onshore location intake structure is not a
12 feature that minimizes adverse environmental impact?

13 A I'm just not in a position to say whether it
14 would minimize adverse environmental impact.

15 Q Is that one of the qualities that made you
16 decide this was interim BTA?

17 A It was part of the consideration that the
18 Agency used to determine if it was interim BTA.

19 Q But you don't have any evidence that the
20 onshore location is better or worse than any other
21 option?

22 A Better or worse than any other option?

23 Q The fact that the cooling water intake
24 structure is located onshore as compared to offshore,

1 you weren't weighing those two options to say this
2 should be interim BTA, correct?

3 A No, I don't recall weighing that option.

4 Q At the bottom of that paragraph on page 666
5 it states, "The intake withdraws water from the entire
6 water column. "Does that help to minimize
7 environmental impact?

8 A I don't recall. I'm not for sure.

9 Q The next paragraph states that, "The design
10 through screen velocity at critical low water level is
11 2.0, and 1.8 feet per second for Units 7 and 8,
12 respectively."

13 Isn't it true that the new Phase II
14 regulations that we've talked about establish that the
15 Best Technology Available for existing facilities is a
16 0.5 feet per second through screen velocity?

17 MR. NAGRA: Objection.

18 MS. FRANZETTI: Objection to form.
19 Mischaracterizes both the existing rule, and the Board
20 has found that portion not applicable at the time this
21 permit was issued; that instead, it's interim BTA.

22 HEARING OFFICER HALLORAN: Sustained.

23 BY MS. DEXTER:

24 Q When you were discussing closed cycle cooling

1 a few minutes ago, you said that one of the reasons
2 that the Phase II rules had established some -- let me
3 start over.

4 Do you agree that the list of seven
5 technologies included in the Phase II rule are
6 potential technologies to minimize adverse impact on
7 aquatic life?

8 MR. NAGRA: Objection. Same objection as last
9 time.

10 HEARING OFFICER HALLORAN: Could you read back the
11 question, please?

12 (The question was so read
13 by the court reporter.)

14 HEARING OFFICER HALLORAN: Miss Dexter?

15 MS. DEXTER: The witness previously testified that
16 the same lists where closed cycle cooling came from was
17 something that the Agency looked at in order to
18 establish what the Best Technology Available could be.

19 I'm not asking him to state that the Phase
20 II rules apply as such. I am merely asking, are these
21 technologies that are established by the rule potential
22 technologies that minimize adverse environmental impact
23 to aquatic life? Is this a list where we can get some
24 information about what technologies are out there?

1 MS. FRANZETTI: But again, relevancy. That's a
2 list that is in the part of the rule when the full BTA
3 requirements apply, which were not applicable to this
4 permit.

5 MS. DEXTER: I'm not arguing that they are
6 applicable. I'm merely pointing to the 0.5 feet per
7 second outtake benchmark that the EPA established to
8 minimize the --

9 HEARING OFFICER HALLORAN: Yes. I'm going to
10 sustain both the Agency's and Midwest Generation's
11 objection.

12 MS. DEXTER: Okay. Luckily, we have this
13 elsewhere as well.

14 BY MS. DEXTER:

15 Q In the document that I handed you, the
16 cooling water intake structure document from the EPA,
17 on Page 1059 of the Administrative Record, the last
18 paragraph states, "Design intake velocity has a
19 significant influence on the potential for impingement.
20 The biological significance of design intake velocity
21 depends on the species-specific characteristics such as
22 fish swimming ability and endurance. These
23 characteristics are a function of the size of the
24 organism and the temperature and oxygen levels of water

1 in the area of the intake. The maximum velocity
2 protecting most small fish is 0.5 feet per second, but
3 lower velocities will still impinge some fish and
4 entrain eggs and larvae and other small organisms."

5 Is it fair to say that these intake
6 velocities of 1.8 or 2.0 feet per second at the
7 Waukegan Station are three to four times greater than
8 the velocities that protect most small fish?

9 A Yes, I would say that's a fair statement.

10 Q Thank you.

11 Back to Page 666 of the record, the
12 Responsiveness Summary. It also states that, "All
13 screens are made with #12 gauge wire with 3/8's-inch
14 openings." Would it be correct to say that IEPA has
15 not included in the record any evaluation of this size
16 and type of screens compared to other options in an
17 attempt to identify the Best Technology Available?

18 MS. FRANZETTI: Objection again to form. Best
19 Technology Available is not the applicable legal
20 standard.

21 MR. NAGRA: Objection.

22 HEARING OFFICER HALLORAN: Objection sustained.

23 BY MS. DEXTER:

24 Q I will restate it with the word interim in

1 it.

2 Would I be correct to state that Illinois
3 EPA has not included in the record any evaluation of
4 this size and type of screens compared to other options
5 in an attempt to identify the interim Best Technology
6 Available?

7 A That's correct.

8 Q And what about the traveling screen system?
9 Isn't it also correct that IEPA has not included in the
10 record any comparison of the existing traveling screen
11 system with other available traveling screen
12 technologies to evaluate the Best Technology Available
13 to minimize adverse environmental impact?

14 A That is correct.

15 MS. FRANZETTI: Same objection.

16 MR. PETTI: Join.

17 HEARING OFFICER HALLORAN: He answered.

18 Overruled.

19 BY MS. DEXTER:

20 Q All right. Now I'd like to turn back to the
21 proposal for information collection that we've
22 discussed several times today. Please turn to Page
23 1209 under the heading 1.1 Existing Control
24 Technologies.

1 Isn't it true that this study prepared on
2 behalf of Midwest Generation states that, "The Waukegan
3 Station cooling water intake system does not appear to
4 include any control technologies specifically designed
5 to reduce impingement mortality or entrainment below
6 the calculation baselines?"

7 A You're asking about --

8 Q I'm asking if it's true that that is as I
9 said it was?

10 A Yes, that statement is in the PIC.

11 Q And isn't it true that the next section
12 states that Waukegan Station does not appear to use any
13 operational measures specifically designed to reduce
14 impingement mortality or entrainment?

15 A Yes, that's what the PIC says.

16 Q In the last paragraph on Page 1210, the
17 author is proposed to evaluate whether the station has
18 implemented any operational controls, including flow or
19 velocity reductions, that reduce impingement mortality
20 and entrainment. Am I correct in stating that the
21 results of such a study are not found in the
22 Administrative Record?

23 A I'm not aware they did the study. But what
24 you're --

1 **Q** Okay. On the next page the author state that
2 **the --**

3 MS. FRANZETTI: Was the witness finished with his
4 answer?

5 HEARING OFFICER HALLORAN: Were you finished with
6 your answer, Mr. Rabins?

7 THE WITNESS: No.

8 This PIC pre-dates Unit 6 coming offline.
9 There were flow reductions and heat rejection rate
10 reductions that took place after this document.

11 BY MS. DEXTER:

12 **Q** Can you explain how the flow reductions and
13 **heat rejection rate, is that what you said?**

14 A Yes.

15 **Q** Relate to the cooling water intake
16 **structures?**

17 A Okay. If you pump less volume of water per
18 unit time and you don't change the size or shape of
19 your --

20 **Q** I'm just simply asking whether the study was
21 **ever completed?**

22 A No, not to my knowledge, the study was not
23 completed.

24 **Q** On the next page, 1211(a), the author states

1 that, "A two-tiered approach will be used to evaluate
2 the feasibility of using impingement control
3 technologies at Waukegan Station? Did.

4 IEPA ever require that study to be
5 completed and submitted in order to evaluate the
6 interim Best Technology Available to minimize adverse
7 environmental impact?

8 A Where does it talk about that study?

9 Q It's the third paragraph under Section 1.5.
10 Are you on Page 1211?

11 A No. Okay. No, I'm not aware that that study
12 was completed.

13 Q The record also states on the same page,
14 1211, that "Midwest Generation reviewed information
15 available from USEPA technical consultants and
16 equipment vendors to identify possible impingement and
17 entrainment control technologies. Based on this
18 review, a list of impingement control technologies was
19 compiled. A summary of the potentially available
20 control technologies, including a brief description of
21 each technology, is provided in Table 1."

22 Turning to Table 1 on Page 1228 of the
23 Administrative Record, we have a table labeled Summary
24 of Potentially Available Control Technologies. The

1 left-hand column is labeled Control Technology. Do you
2 see that?

3 A Yes, I see that.

4 Q And under it there is a subcategory labeled
5 Behavioral Barriers and then under that subcategory
6 title there is A through E listed here that include
7 sound barriers, strobe light, air bubble curtains,
8 velocity caps and other behavioral barriers which
9 indented underneath that list are electrical barriers,
10 chemicals barriers, magnetic fields, chains and cables.

11 Am I correct in stating that IEPA did not
12 evaluate any of these behavioral barriers as a
13 potential Best Technology Available to minimize adverse
14 environmental impact?

15 MS. FRANZETTI: Object to form. Assumes facts not
16 in evidence that these would qualify as interim BTA.

17 HEARING OFFICER HALLORAN: Miss Dexter?

18 MS. DEXTER: I am merely trying to understand what
19 the Agency did or did not evaluate to establish interim
20 BTA. And we have here a list of potential control
21 technologies that were presented by Midwest Generation,
22 and I'm asking whether the Agency considered these
23 control technologies.

24 HEARING OFFICER HALLORAN: I'll allow it.

1 Mr. Rabins?

2 THE WITNESS: Yes, this information was available.

3 BY MS. DEXTER:

4 Q That's not my question.

5 My question is, is there any analysis that
6 the Agency has of whether or not these control
7 technologies, specifically the behavioral barriers
8 listed here, could be used as interim Best Technology
9 Available?

10 A No.

11 Q Thank you.

12 The next subsection is labeled Physical
13 Barriers. Hear the list of potentially available
14 control technologies include vertical traveling
15 screens, modified vertical traveling screen, and in
16 parenthesis I believe it's pronounced Ristroph. It's
17 spelled R-i-s-t-o-f-p-h. Rotary drum screens,
18 center-flow/dual-flow screen, fine mesh screens mounted
19 on traveling screens, stationary screens (vertical
20 fixed-plate screens), velocity gradient, (angled or
21 louvered screens), fish barrier net, aquatic filter
22 barrier, (Gunderboom), porous dikes/leaky dams, and
23 cylindrical wedge-wire screen.

24 Am I correct in stating the IEPA did not

1 analyze any of these physical barriers as potential
2 interim Best Technology Available to minimize adverse
3 environmental impact?

4 A Correct. They were not analyzed.

5 Q Thank you.

6 Okay. So we've talked about technologies
7 available to minimize adverse environmental impact.
8 Now let's look at the information about those impacts
9 to aquatic life that the Agency relied on in making its
10 best professional judgment determination.

11 HEARING OFFICER HALLORAN: I'm sorry, Miss Dexter.
12 How much longer do you think we have?

13 MS. DEXTER: Just a few more minutes, like three.

14 HEARING OFFICER HALLORAN: Okay.

15 BY MS. DEXTER:

16 Q Please turn to Page 666 again of the
17 Responsiveness Summary. At the bottom of the page the
18 question is posed, "What current and historical data
19 did IEPA have regarding impingement and/or entrainment
20 at this facility?" Can you please read the response
21 the Agency provided to that question?

22 A Number 16, "The Illinois EPA used the data
23 provided in the 1975/1976 study conducted in accordance
24 with Section 316(b) of the Clean Water Act 33 U.S.C.

1 1326(b). Specifically the study provides:

2 "Twenty-four hour impingement samples were
3 collected every fourth day from May 12th, 1975, through
4 April, 1976 at the Waukegan Station. An estimated
5 898,457 fish comprised of 30 species were impinged
6 during the study.

7 "Weekly entrainment samples were collected
8 from April 2nd, 1975, through March 1976. An estimated
9 19.8 million identifiable fish larvae were collected.
10 Comprised of only three species common come. An
11 estimated 855.2 million identifiable fish eggs were
12 collected during this study. Consistent with the fish
13 larvae, only three species were identified among the
14 fish eggs; alewife, rainbow smelt and common carp."

15 Q Okay. I want to start by asking a question
16 about the entrainment information first.

17 Now, entrainment impacts occur when
18 organisms are sucked past the cooling water intake
19 screens into the cooling water structure itself, right?

20 A I would have to read the definition.

21 Q But basically, that's your understanding that
22 entrainment includes those organisms that make it
23 through the screens of the cooling water intake
24 structure?

1 A That sounds correct.

2 Q And if we're talking about entrainment
3 impacts on fish, do you expect it would be mostly eggs
4 and larvae that get the through that screen because
5 they are small?

6 A I don't have any expectations.

7 Q You don't have any expectations. Okay.

8 The Responsiveness Summary here notes that
9 only three species were "identifiable" from the
10 hundreds of millions of organisms that were collected.

11 So let's say I have a question about study
12 methods, for example, whether only three species were
13 identifiable because only three species were present,
14 or whether only three species were identifiable because
15 it's difficult or even impossible to identify fish
16 larvae or fish eggs down to the species level. Isn't
17 it true that the reference studies from 1975 and 1976
18 are not located in the Administrative Record?

19 MS. FRANZETTI: Objection to form.

20 HEARING OFFICER HALLORAN: Could you be more
21 specific, please?

22 MS. FRANZETTI: Well, just the characterization of
23 counsel testifying at the beginning of the question. I
24 have no objection if counsel is simply asking are those

1 studies in the record.

2 HEARING OFFICER HALLORAN: Sustained. Miss
3 Dexter?

4 BY MS. DEXTER:

5 Q All right.

6 Are the referenced studies from 1975 and
7 1976 located in the Administrative Record?

8 A From my memory, I thought they were. They
9 should have been in there.

10 Q Can you point to those studies in the record?

11 A First of all, I don't have the whole record
12 in front of me; so no, I don't have the record.

13 Q What is your recollection of what those
14 studies are in the record? What am I looking for?

15 A The 1975/1976 study conducted in accordance
16 with Section 316(b) of the Clean Water Act, 33 U.S.C.
17 1326(b).

18 Q I understand that.

19 A Okay.

20 Q Do you know the names of those studies?

21 A I don't recall off the top of my head, no.

22 Q If I give you time with the Administrative
23 Record, can you confirm whether or not the studies are
24 included in the Administrative Record?

1 A Yes. If you gave me time, I could confirm
2 that.

3 **Q Why don't you attempt to do that?**

4 A Do you have --

5 MR. PETTI: Objection.

6 HEARING OFFICER HALLORAN: Well, let's hold on a
7 minute.

8 MS. DEXTER: There's an ambiguity here that I
9 think needs to be resolved. I can't testify that the
10 studies are not in the record.

11 HEARING OFFICER HALLORAN: Do you have the whole
12 record with you? And how long do you think it will
13 take?

14 MS. DEXTER: I have it electronically.

15 MR. PETTI: Can we agree that the record speaks
16 for itself? The documents are what the documents are.

17 I mean I don't understand what we're doing
18 here, to be honest with you, in going over confirming
19 what a document says. This isn't an evidentiary
20 hearing in the matter of a Trial Court where the
21 documents are coming in out of a universe we don't
22 know.

23 We have the universe of documents we're
24 discussing. They say what they say, and they are what

1 they are. And I guess I don't understand what we're
2 trying to get at with confirming or not confirming
3 whether a document exists in the record. Either it's
4 there, or it's not.

5 MS. DEXTER: Well, I've heard inconsistent things
6 about whether there's actually the basis for the
7 Agency's decision in the record.

8 HEARING OFFICER HALLORAN: Well, I think he can
9 probably address that in a post-hearing Brief. It's on
10 the transcript, and if there is inconsistent
11 statements, he would bring that out in the post-
12 hearing Brief.

13 MS. DEXTER: I realize that I'm, this is sort of a
14 negative contention I'm trying to prove. But I can't
15 reference the 1,200 page record to say look, it's not
16 here.

17 HEARING OFFICER HALLORAN: Well, you could allege
18 that in your opening and then respond in your reply.

19 MS. DEXTER: Okay. We will take care of that.

20 HEARING OFFICER HALLORAN: Depending on what the
21 Agency -- Thank you.

22 BY MS. DEXTER:

23 Q And isn't it true that Midwest Generation
24 itself has stated in the record that the 30-year old

1 data may no longer be representative of current
2 conditions?

3 MS. FRANZETTI: Objection to the form, and it's
4 asked and answered. And I think you should direct him
5 to where you're --

6 MS. DEXTER: I didn't ask that question.

7 MS. FRANZETTI: Well, he has answered that
8 question. You asked him about --

9 MS. DEXTER: That was about a different topic all
10 together.

11 HEARING OFFICER HALLORAN: Counsel, sustained.

12 BY MS. DEXTER:

13 Q All right. I am handing you a document from
14 the record beginning on Page 4 of the record, which
15 appears to be a letter. What is the date of this
16 letter?

17 A October 18th, 2004.

18 Q And who is this letter from?

19 A Midwest Generation EME, LLC.

20 Q And who is the letter addressed to?

21 A Mr. Blaine Kinsley.

22 Q Can you please read for us the subject of the
23 letter identified just below the address?

24 A "Request for extension to submit information

1 required by 316(b) Phase II Rule."

2 **Q And can you please read the second sentence**
3 **of the second paragraph in this letter?**

4 A "Waukegan Station is our only affected
5 facility that has ever had to do any intake-related
6 monitoring, but that data is now 30 years old and may
7 no longer be entirely representative of current
8 conditions."

9 MS. DEXTER: I have no further questions.

10 HEARING OFFICER HALLORAN: Okay. Do you want to
11 take a lunch break now? Mr. Nagra, do you have a lot
12 of questions to ask?

13 MR. NAGRA: No, I don't have a lot. Are you
14 talking about for the next witness or for Mr. --

15 HEARING OFFICER HALLORAN: For this witness here.

16 MR. NAGRA: If I have questions, it will probably
17 be a handful, like maybe five, maybe none. I'll have
18 to just reassess.

19 HEARING OFFICER HALLORAN: You know what? Let's
20 take a lunch. It's 12:20. Be back here at 1:15.
21 Thank you. Off the record.

22 (There was a break taken,
23 after which the hearing was
24 resumed as follows:)

1 HEARING OFFICER HALLORAN: All right. Is
2 everybody ready?

3 All right. We're back on the record.
4 It's 1:21. We are back from lunch. I believe Miss
5 Dexter was on her redirect.

6 MS. DEXTER: I believe I had concluded my
7 redirect.

8 HEARING OFFICER HALLORAN: Okay. So I think
9 Mr. Nagra has a few questions to ask. And Mr. Rabins,
10 you're still under oath.

11 MR. NAGRA: Mr. Hearing Officer, we have no
12 further questions.

13 HEARING OFFICER HALLORAN: You have no further
14 questions? Okay. Miss Franzetti?

15 MS. FRANZETTI: No further questions.

16 HEARING OFFICER HALLORAN: Let's go off the record
17 for a second. We may have some questions.

18 (There was a discussion held off
19 the record, after which the
20 hearing resumed as follows:)

21 HEARING OFFICER HALLORAN: You may step down,
22 Mr. Rabins. Thank you.

23 All right. Miss Dexter?

24 MS. DEXTER: I do not intend to call the next

1 witness at this point, but I would like to reserve the
2 ability to redirect or cross, or whatever you would
3 call that if --

4 HEARING OFFICER HALLORAN: Okay. So you rest your
5 case in chief, and then we'll move to the respondents.

6 MS. DEXTER: Yes.

7 HEARING OFFICER HALLORAN: Agency Midwest?

8 MS. FRANZETTI: I'm sorry?

9 HEARING OFFICER HALLORAN: Miss Dexter rested
10 their case in chief. Now we turn it over to the
11 respondents, if you so choose to call any witnesses.

12 MR. NAGRA: Yes. The Agency wishes to call
13 Mr. Darin LeCrone as a witness.

14 HEARING OFFICER HALLORAN: Okay. You may do so.

15 THE COURT REPORTER: Raise your right hand please.

16 (The oath was thereupon duly
17 administered to the witness
18 by the Notary.)
19
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24

1 DARIN LE CRONE,
2 Called as a witness by the Respondent herein, having
3 been first duly sworn, was examined and testified as
4 follows:

5 DIRECT EXAMINATION

6 By: Mr. Nagra

7 **Q Mr. LeCrone, can you please state your**
8 **position with the Illinois Environmental Protection**
9 **Agency?**

10 A Yes. I am the Manager of the industrial unit
11 in the pollution water controls permit section.

12 **Q And can you just describe your educational**
13 **background, please?**

14 A I have a Bachelor of Science in mechanical
15 engineering from Southern Illinois University
16 Carbondale, and I'm a Licensed Professional Engineer in
17 Illinois.

18 **Q How long have you worked at IEPA?**

19 A It was 24 years in May.

20 **Q Okay. And in your current position, what are**
21 **your job responsibilities?**

22 A I supervise the permit engineers in the
23 industrial unit and review their draft permits for
24 completion and all that, sign the letters necessary to

1 go out for the notices during the issuance process.

2 Q So Mr. Rabins who testified here earlier
3 today would have reported to you?

4 A Correct, yes.

5 Q And are you familiar with the Waukegan
6 facility?

7 A Yes.

8 Q Okay. And that facility holds a permit
9 issued by your division, correct?

10 A Correct.

11 Q And what is that permit?

12 A It's an NPDES permit for discharge of
13 wastewaters to waters of the U.S.

14 Q And does that permit include an alternative
15 thermal effluent limitation?

16 A Yes.

17 Q And can you describe what an alternative
18 thermal effluent limitation is?

19 A It is a standard that is other than what
20 would normally be prescribed by the regulations.

21 In this case, it's for temperature, and it
22 is a standard that is in some way different from the
23 water quality standard for temperature that would
24 normally apply to Lake Michigan.

1 Q And have you worked with alternative thermal
2 effluent limitations at other facilities in addition to
3 the Waukegan facility?

4 A Yes.

5 Q What was your role in drafting and/or
6 approving the permit that is the subject of this
7 proceeding?

8 A I was responsible for approving the drafts
9 that were released for notice. I am trying to
10 remember. This application was pending before I became
11 the unit manager, so like Mr. Rabins, I kind of came in
12 after the application was filed. And I was not the
13 permit reviewer prior to this in years previous. So
14 from 2009-ish on, I was either the acting, or the
15 full-time unit manager.

16 Q Okay. So let's talk a little bit about what
17 the Agency considered in making its determinations
18 under 316(a) of the Clean Water Act. And I'd like to
19 start with the nature of the thermal discharge as it
20 existed in 1978.

21 When the subject permit was up for
22 renewal, did the Agency consider the nature of the
23 Waukegan facility's thermal discharge in 1978 when the
24 Board originally granted the alternative thermal

1 effluent limitation?

2 A Do you mean the nature of it as it existed in
3 1978?

4 Q Yes.

5 A Yes.

6 Q And did the Agency's consideration of the
7 nature of the Waukegan facility's thermal discharge in
8 1978 include consideration of the findings of various
9 studies that formed the basis of the Board's Order
10 granting that original alternative thermal effluent
11 limitation?

12 A The findings, yes; the studies themselves,
13 not necessarily.

14 Q Okay. And did those studies that had been
15 submitted in support of the original alternative
16 thermal effluent limitations, and on the basis of which
17 the Board originally granted that relief, include
18 thermal plume studies?

19 A To my understanding, yes, they did.

20 Q And did those thermal plume studies include
21 modeling of thermal levels in Lake Michigan?

22 A Yes.

23 Q And during the most recent permit renewal
24 process, did the Agency's consideration of the nature

1 of the subject facility's thermal discharge, the
2 Waukegan facility's thermal discharge in 1978, include
3 consideration of the findings of various studies of
4 Lake Michigan currents that also formed the basis of
5 the Board's Order in 1978?

6 A That's my understanding, yes.

7 Q Okay. And moving forward to the present
8 time, when the Waukegan facility's permit was up for
9 renewal, did Illinois EPA consider the nature of the
10 Waukegan facility's current thermal discharge relative
11 to the nature of its 1978 thermal discharge?

12 A Yes.

13 Q And Mr. LeCrone, can you explain what a heat
14 rejection rate is?

15 A The heat rejection rate is the amount of
16 heat, and usually in BTUs, that is rejected by, usually
17 through the condensers, and that BTU per hour typically
18 is how it's expressed.

19 Q And did the Agency's comparison between the
20 nature of the 1978 thermal discharge and the nature of
21 the present day thermal discharge include consideration
22 of the Waukegan facility's heat rejection rate over
23 time?

24 A Yes.

1 Q And what did that comparison reveal with
2 respect to the Waukegan facility's heat rejection rate
3 over time?

4 A The information in the record indicated that
5 there was a 30-some odd percent reduction in the heat
6 rejection rate over the 78 conditions, due to the
7 shutdown of two units.

8 Q Okay. And can you also explain what a
9 cooling water discharge rate is?

10 A It's typically in either gallons per minute,
11 or million gallons per day of cooling waters circulated
12 through the plant's condensers.

13 Q Did the Illinois EPA's comparison between the
14 nature of the 1978 thermal discharge and the nature of
15 the Waukegan facility's present day thermal discharge
16 also include consideration for Waukegan facility's
17 cooling water discharge rate over time?

18 A Yes.

19 Q What did that comparison reveal with respect
20 to the Waukegan facility's cooling water discharge rate
21 over time?

22 A There was a similar percent reduction in flow
23 rate for the same reason as the rejection rate
24 reductions, due to the shutdown of the two units.

1 Q Can the location of a thermal plume in Lake
2 Michigan be affected by variations in lake currents?

3 A It could be, yes.

4 Q Is there anything in the record that would
5 suggest that Lake Michigan currents surrounding the
6 Waukegan facility have changed since 1978?

7 A I'm not aware of any information indicating
8 any changes in '78 in the lake currents.

9 Q Can the location of a thermal plume in Lake
10 Michigan be affected by weather conditions?

11 A Could be, yes.

12 Q Could the location of a thermal plume in Lake
13 Michigan be affected by changes in the season?

14 A It could be, yes.

15 Q So it's fair to say that the precise location
16 of a plume could vary, say, from winter to summer?

17 A It could.

18 Q And given that inherent season variability in
19 the plume's location, would it be fair to say that a
20 seasonal shift in the location of a plume, taken alone,
21 would not be considered a material change to the nature
22 of the thermal discharge?

23 A Yes. The seasonal changes would have been
24 accounted for, or should have been accounted for in the

1 original demonstration.

2 Q Okay.

3 A So in and of itself, that wouldn't constitute
4 a material change.

5 Q And can the location of a thermal plume in
6 Lake Michigan be affected by changes to the physical
7 attributes of the Waukegan facility's discharge canal?

8 A Like the size, shape?

9 Q Right.

10 A It could be affected by that, yes.

11 Q And are you aware of any such changes to the
12 structure of the Waukegan facility's thermal discharge
13 since 1978?

14 A I'm not aware that there's been any changes
15 in the physical nature of the discharge formula.

16 Q And now let's talk a little bit about the
17 balanced, indigenous population of shellfish, fish and
18 wildlife.

19 And particularly, let me start also with
20 1978. During the permit renewal process, did the
21 Agency consider the balanced, indigenous population of
22 shellfish, fish and wildlife at the time the Board
23 granted the alternative thermal effluent limitation in
24 1978?

1 A Can you repeat that?

2 Q Sure. During the permit renewal process, did
3 the Agency consider the balanced, indigenous population
4 of shellfish, fish and wildlife that existed at the
5 time the Board granted the alternative thermal effluent
6 limitations in 1978?

7 A Yes.

8 Q And did the Agency's consideration of the
9 balanced, indigenous population of shellfish, fish and
10 wildlife at the time the Board granted the alternative
11 thermal effluent limitations in 1978 include
12 consideration of the field study data and study
13 findings concerning Lake Michigan organisms that formed
14 the basis for the Board's Order granting the original
15 thermal relief?

16 A Can you repeat?

17 Q Sure.

18 A I just want to make sure I'm answering
19 correctly.

20 Q Absolutely. I'll repeat my question.

21 Did Illinois EPA's consideration of the
22 balanced, indigenous population of shellfish, fish and
23 wildlife at the time the Board granted the alternative
24 thermal effluent limitation in 1978 include

1 consideration of the field study data and study
2 findings concerning Lake Michigan organisms that formed
3 the basis for the Board's 1978 Order?

4 A Study findings, yes.

5 Q Okay. And moving forward to the present
6 time. During the permit renewal process, did Illinois
7 EPA consider the present day balanced, indigenous
8 population of shellfish, fish and wildlife in Lake
9 Michigan?

10 A Yes.

11 Q Did the Agency's comparison between the
12 balanced, indigenous population of shellfish, fish and
13 wildlife in Lake Michigan in 1978 and the balanced,
14 indigenous population of shellfish, fish and wildlife
15 in Lake Michigan today reveal any changes in Lake
16 Michigan's aquatic community?

17 A The information in the record shows there was
18 changes in the biological community in the lake during
19 that timeframe.

20 Q Okay. And those changes would be noted in
21 the record, right?

22 A Yes.

23 Q Okay. And can I please refer you to
24 Respondent's Exhibit E, and specifically Page 673 of

1 Exhibit E? Mr. LeCrone, do you recognize this
2 document?

3 A Got it.

4 Q Okay, great. I'd like to refer you to
5 Page 673, and more specifically, Item Number 43.

6 A Yes.

7 Q So can I start by asking what this document
8 is?

9 A This is a page from the Responsiveness
10 Summary.

11 Q Okay. And does Item Number 43 on Page 673
12 reflect an accurate summary of the changes in Lake
13 Michigan's aquatic community that Illinois EPA
14 considered during the permit renewal process?

15 A Is this an accurate representation?

16 Q Yes.

17 A Yes.

18 Q And what were those changes that took place
19 in Lake Michigan?

20 A Based on the information available, it was a
21 change in productivity, and the like, that appeared to
22 be due to nuisance of invasive species.

23 Q And is there any basis in the record on which
24 to conclude that those changes were related to the

1 **Waukegan facility's thermal discharge?**

2 A There's no information I'm aware of in the
3 record that indicates it's related to temperature, no.

4 **Q Does the record reflect any possible causes**
5 **to which those changes could be attributed?**

6 A Yes. Based on the information in the record,
7 the changes were due to the nuisance of invasive
8 species affecting the productivity on the lake as a
9 whole, from my understanding.

10 **Q What years did the previous permit cycle for**
11 **this facility encompass?**

12 A I believe it was 2000-2005.

13 **Q And Mr. LeCrone, can I please refer you to**
14 **Respondent's Exhibit I, and specifically Page 1216 of**
15 **the record?**

16 A Okay.

17 **Q Do you recognize this document?**

18 A Yes.

19 **Q What is it?**

20 A It's the Proposal For Information Collection
21 that was submitted for Waukegan Station.

22 **Q Okay. And did Illinois EPA's consideration**
23 **of the present day balanced indigenous population of**
24 **shellfish, fish and wildlife in Lake Michigan include**

1 the consideration of the data that appears on Page 1216
2 that was collected by Midwest Generation from 2003 to
3 2005 during the two-year impingement study?

4 A The data that's indicated on Page 1216?

5 Q Yes.

6 A Yes.

7 Q And would it be fair to say that the data
8 collected by Midwest Generation from 2003 to 2005
9 during that two-year impingement study indicated that
10 the fish community near the Waukegan Station did not
11 fundamentally change relative to the fish community
12 that existed in the late 1970's?

13 A That's my understanding, yes.

14 Q And Mr. LeCrone, I'd also like to refer you
15 to Page 204 which is Respondent's Exhibit A.

16 A Okay.

17 Q Do you recognize this document?

18 A Yes, I do.

19 Q What is it?

20 A It's the comment letter from Midwest
21 Generation dated January 12th, 2012.

22 Q Okay. And on the bottom of Page 204, do you
23 see a summary of the 2003 to 2005 field data that
24 Midwest Generation collected in the vicinity of the

1 Waukegan Station?

2 A Yes.

3 Q Okay. Did that data that Midwest Generation
4 collected from 2003 to 2005 during its two-year
5 impingement study indicate that most Lake Michigan open
6 water or deepwater species like salmonids, sculpins and
7 coregonids are impinged in low numbers?

8 A Yes.

9 Q What do the low impingement rates for open
10 water or deepwater species indicate?

11 A That they are typically not present in the
12 area of the thermal discharge.

13 Q Okay. And would it be fair to say that that
14 would indicate that they are at minimal risk from
15 exposure to the thermal plume?

16 A Yes, correct.

17 Q And I'd like to refer you now to Page 206 of
18 the same document; and specifically, the second to the
19 last paragraph.

20 A Okay.

21 Q Did Illinois EPA's consideration of the
22 present day balanced, indigenous population of
23 shellfish, fish and wildlife in Lake Michigan include a
24 consideration of the data collected by the Illinois

1 Department of Natural Resources during electrofishing
2 studies in Waukegan Harbor that is summarized on
3 Page 206 of the record?

4 A Yes.

5 Q And I'd like to refer you back to Page 204
6 for a second of the same document; and specifically,
7 the third paragraph on this page, which starts with
8 "MWG acknowledges" and continuing to the next
9 paragraph, "One of the USGS transects."

10 A Okay.

11 Q So did the Agency's consideration of the
12 present day balanced, indigenous population of
13 shellfish, fish and wildlife in Lake Michigan include
14 consideration of data collected by USGS in 2009 as part
15 of a trawling program that's summarized on this
16 Page 204?

17 A Yes.

18 Q And did the USGS trawling program data have
19 any particular relevance to the Waukegan facility?

20 A I know that one of the areas that they
21 continued to trawl was near Waukegan Station. I don't
22 know exactly where, but it was near the station
23 discharge.

24 Q Okay. And would it be fair to say that the

1 trawling program results revealed that alewives
2 remained the numerically dominant species in that
3 vicinity of the Waukegan Station, as was also the case
4 in the late 1970's?

5 A Yes.

6 Q And based on the information in the record,
7 was it your understanding that changes in the
8 composition of the Lake Michigan fish communities since
9 the late 1970's, such as declines in rainbow smelt,
10 occurred on a lakewide basis, rather than on a
11 localized basis?

12 A That's my understanding, yes.

13 Q And in your experience, if a regulated
14 facility's thermal discharge would be the cause of
15 those changes, would you expect those changes to occur
16 on a localized basis or a lakewide basis, as opposed
17 to -- excuse me. Let me rephrase the question.

18 In your experience, if a regulated
19 facility's thermal discharge is a cause of such
20 changes, such as declines in population, would you
21 expect those changes to occur on a localized basis,
22 rather than on a lakewide basis?

23 A In general, probably there's a lot of
24 variables that would go into play there.

1 On something like -- on a receiving water
2 the size of Lake Michigan, I would expect it to be
3 localized. A smaller water body, it could be lakewide.

4 Q And is there any information in the record to
5 suggest that changes in the composition of the Lake
6 Michigan fish community since the late 1970's can be
7 attributed to thermal discharges?

8 A There is nothing in the record I'm aware of
9 that indicates it has anything to do with temperature.

10 Q Okay. Did you believe that you had
11 sufficient information to determine that there was no
12 material change that would cause appreciable harm to a
13 balanced, indigenous population of shellfish, fish and
14 wildlife in Lake Michigan?

15 A I believe we had sufficient information, yes.

16 Q Did the absence of a recent thermal plume
17 model deprive you of necessary information to make that
18 determination?

19 A In this case, no.

20 Q And in the context of Clean Water Act
21 Section 316(a) and related regulations, are you
22 familiar with a document known as the Hanlon Memo?

23 A Yes.

24 Q What is that document?

1 A Not having it in front of me, it was a
2 document outlining how USEPA wanted states to, how they
3 wanted to consider 316(a) type relief or other thermal
4 relief, and how it was granted to stations and under
5 what authority and that sort of thing.

6 **Q Okay. And was there a new approach that was**
7 **outlined in that memo?**

8 A It was more of a revision or re-visiting of
9 the approach that USEPA felt everyone should be
10 following, that may or may not have been over the
11 years. I don't know how to describe it, other than a
12 nationwide wake-up call, for lack of a better way to
13 describe it.

14 **Q And how did Illinois EPA become aware of that**
15 **new approach that was outlined in the Hanlon Memo?**

16 A We had received comments from USEPA on other
17 draft permits asking us about thermal relief, how it
18 was granted, under what legal authorities, and it
19 caused us to begin reviewing the thermal relief granted
20 at all the different power stations over the years.

21 **Q Okay. And did USEPA, having issued that memo**
22 **and this guidance on what to do under 316(a),**
23 **eventually take any kind of position with respect to**
24 **whether or not IEPA should issue the final NPDES permit**

1 **that is now the subject of this proceeding?**

2 A They did issue a new objection letter for the
3 permit kind of approving our approach, or not objecting
4 or commenting to our approach in the way the final
5 permit was issued.

6 Q And Mr. LeCrone, I'd now like to shift gears
7 and focus my attention on 316(b). In the context of
8 Clean Water Act Section 316(b) and its implementing
9 regulations, are you familiar with something called the
10 Phase II rule?

11 A Yes.

12 Q What is the Phase II rule?

13 A The Phase II rule when it was issued, I don't
14 remember the year, was to apply to existing power
15 plants, including the water intake structures of
16 existing power plants.

17 Q And what was the legal status of the Phase II
18 rule at the time Midwest Generation applied for renewal
19 of the subject NPDES permit in January of 2005?

20 A In January of 2005, the Phase II rule was in
21 effect and in litigation.

22 Q And what eventually happened with the Phase
23 II rule?

24 A It was remanded by the Courts in either 2007

1 or 2008, and then withdrawn by USEPA.

2 Q Do you remember which Court remanded it?

3 A I don't.

4 Q Okay. State or federal?

5 A Federal.

6 Q Okay.

7 A I'm pretty sure.

8 Q Okay. And what is the state of the Phase II
9 rule today?

10 A The Phase II rule was, after remand was
11 withdrawn and replaced with the existing facility's
12 rule that became final in 2014.

13 Q Okay. Mr. LeCrone, can I briefly refer you
14 to Respondent's Exhibit I which begins on Page 1204 of
15 the record?

16 A Yes.

17 Q Do you recognize this document?

18 A Yes.

19 Q What is it?

20 A It's the Proposal For Information Collection.

21 Q Okay. And in 2005 when this Proposal For
22 Information Collection was prepared, was the interim
23 BTA standard applicable to the Waukegan facility?

24 A At that time, no. This was prepared under

1 the requirements of the Phase II rule.

2 Q Okay. And how did withdrawal of the Phase II
3 rule affect IPEA's approach to renewing the NPDES
4 permit?

5 A Well, it affected not just our approach, but
6 the permittee's approaches, and not just Midwest
7 Generation, but everyone's approach to dealing with
8 regulating intake structure operations. It kind of
9 left a vacuum there and a large chunk of uncertainty.

10 There was the last shred of the Phase II
11 rule following the remand withdrawn was a BPJ
12 requirement rule that kind of carried over to the
13 existing facility's rule when it was finalized.

14 Q Okay. And so the IEPA applied the rule as it
15 existed today which would be the existing facility's
16 rule?

17 A Correct.

18 Q And is it correct that the interim BTA
19 standard that IEPA applied with respect to the Waukegan
20 facility's cooling water intake structure was derived
21 from the existing facility's rule?

22 A Yes.

23 Q Okay. During the permit renewal process, was
24 Illinois EPA generally aware of how the Waukegan

1 facility's cooling water intake structure operated?

2 A Yes.

3 Q Can I please refer you to Page 666 of the
4 record, Respondent's Exhibit E?

5 A Okay.

6 Q And I'd like to refer you specifically to
7 Item Number 15 on Page 666.

8 A Okay.

9 Q Do you recognize this document, Mr. LeCrone?

10 A I do, yes.

11 Q Okay. What is it?

12 A It's a page from the Responsiveness Summary.

13 Q And is Item Number 15 on Page 666 an accurate
14 summary of how the Waukegan facility's cooling water
15 intake structure operated?

16 A To the best of my knowledge, yes.

17 Q Okay. And when the Waukegan facility's NPDES
18 permit was up for renewal, did Illinois EPA make an
19 interim Best Technology Available determination with
20 respect to the Waukegan facility's cooling water intake
21 structure that was based on Illinois EPA's best
22 professional judgment?

23 A We did, yes.

24 Q And may I please refer you to Respondent's

1 Exhibit H, and specifically, Page 696 of the record?

2 A Yes.

3 Q Is Illinois EPA's interim Best Technology
4 Available determination with respect to the Waukegan
5 facility's cooling water intake structure based on
6 Illinois EPA's best professional judgment reflected in
7 Special Condition 7 of this NPDES permit?

8 A Yes.

9 Q Pursuant to which statutory or regulatory
10 provisions did Illinois EPA make that interim Best
11 Technology Available determination?

12 A It was pursuant to 40 CFR 129.90(b).

13 Q And was it also pursuant to 40 CFR 401.14?

14 A Yes.

15 Q Okay. So the Agency would have consulted and
16 applied 401.14 in making it's interim BTA
17 determination; is that correct?

18 A Correct.

19 Q And it also would have consulted and
20 applied -- I'm sorry. What other provision did you
21 just mention?

22 A 125.90(b).

23 Q So Illinois EPA would have also consulted and
24 applied that provision, right?

1 A Correct.

2 Q And so why did the Agency cite 40 CFR 125.3
3 in Special Condition 7?

4 A Well, that Citation is to the best
5 professional judgment provisions for determining
6 effluent standards. And so our attempt was to include
7 that to try and incorporated the entirety of the
8 concept of best professional judgment.

9 Q Could Special Condition 7 have been drafted
10 without citing 125.3?

11 A Yes.

12 Q In other words, so it was not a necessary
13 component of Special Condition 7?

14 A It was not the necessary primary Citation.

15 Q Okay. And was Illinois EPA's interim Best
16 Technology Available determination based on the results
17 of any impingement and entrainment studies conducted at
18 the Waukegan facility?

19 A New or existing?

20 Q Let's start with existing.

21 A There were previous studies done in the past,
22 many years ago. There were not completed studies done
23 more recently than that.

24 Q Okay. And so would Illinois EPA's interim

1 **Best Technology Available** determination have been
2 **based, at least in part, on the impingement and**
3 **entrainment data that Midwest Generation collected from**
4 **2003 to 2005?**

5 A Yes, to the extent that it was available,
6 yes.

7 Q Okay. Is there any basis in the record on
8 **which to conclude that the cooling water intake**
9 **structure at the Waukegan facility does not meet**
10 **interim Best Technology Available pursuant to the**
11 **regulatory provisions we just discussed a minute ago?**

12 A There is nothing in the record that indicates
13 it would not constitute an interim Best Technology
14 Available based on our best professional judgment.

15 Q And Mr. LeCrone, can you explain to me what
16 **closed cycle cooling is?**

17 A Closed cycle cooling generally is -- well,
18 I'll start with open cycle. That's where you withdraw
19 the full flow rate of cooling water from the water
20 source. It circulates through the plant, and the
21 entire flow goes back to the water source.

22 In closed cycle it's generally a majority
23 of that flow rate is recycled, and only a small portion
24 of it may be blown down to maintain water chemistry, so

1 it's a great reduction in cooling water flows. And
2 typically, cooling towers are one method of closed
3 cycle cooling.

4 Q And what if anything did Illinois EPA
5 determine with respect to closed cycle cooling as a
6 possible interim Best Technology Available?

7 A Can you restate that?

8 Q Sure. What if anything did Illinois EPA
9 determine concerning closed cycle cooling as a possible
10 interim Best Technology Available?

11 A We did not determine that it was an interim
12 BTA at this time.

13 Q Okay. Mr. LeCrone, I'd like to refer you to
14 Page 622 of the record which is Respondent's Exhibit K.

15 A Okay.

16 Q Do you recognize this document?

17 A Yes.

18 Q What is it?

19 A Page 622 is Enclosure A of a comment letter
20 from USEPA dated November 25th, 2014.

21 Q Okay. And is this the letter of non-
22 objection that we talked about a minute ago in the
23 context of 316(a)?

24 A Yes.

1 Q Okay. And I'd like to refer you to Item
2 Number 3 on Page 622. And I was wondering if you could
3 please just read to me the very first sentence of that
4 item?

5 A The very first sentence in number three?

6 Q Yes.

7 A "Special Condition 7 provides the best
8 professional judgment Best Technology Available
9 determination for the cooling water intake structure as
10 required by Clean Water Act Section 316(b)."

11 Q Did this statement from USEPA give you some
12 measure of confidence and/or confirmation that Illinois
13 EPA's interim Best Technology Available determination
14 with respect to the Waukegan facility's cooling water
15 intake structure based on Illinois EPA's best
16 professional judgment was consistent with and not in
17 violation of Section 316(b) of the Clean Water Act and
18 its implementing regulations?

19 A Yes.

20 MR. NAGRA: Thank you, Mr. LeCrone. I have no
21 further questions at this time.

22 HEARING OFFICER HALLORAN: Thank you. I guess
23 we're on a roll.

24 Miss Franzetti, do you have any questions

1 of this witness?

2 MS. FRANZETTI: Not at this time.

3 HEARING OFFICER HALLORAN: Okay. Miss Dexter?

4 MS. DEXTER: I think I have just a few.

5 CROSS EXAMINATION

6 By: Ms. Dexter

7 Q A few minutes ago you had stated that you
8 relied on the findings of the thermal studies that were
9 conducted pursuant to the 1978 thermal variance, but
10 not the studies themselves?

11 A Right.

12 Q Can you point me to where those findings are
13 located in the record?

14 A Not off the top of my head, no. They are
15 discussed in -- I believe they are discussed in the
16 summary of Midwest Generation's comment letter. Let me
17 see if I can find it. I'm not sure where it is in the
18 record.

19 Q You were also asked a question about whether
20 the lake currents have changed. I would build on that
21 question and ask whether IEPA evaluated whether the
22 change in the nature of the discharges where the flow
23 was reduced has been evaluated, that new flow has been
24 compared to lake currents and the effect on lake

1 **currents?**

2 A I believe I was asked if the currents could
3 have changed. I don't know that they have or they
4 haven't.

5 The reduction in flow rates would have or
6 should have had a corresponding effect on the size of
7 the plume. It should have been smaller. The
8 velocities exiting the discharge canal should have been
9 lower. The flow out of it should have been lower, and
10 that should have resulted in smaller plume.

11 Q But is there any of that information in the
12 record, any analysis of the actual --

13 A There are no plume studies, no.

14 Q You were asked some questions about decline
15 in the ecologic productivity in Lake Michigan?

16 A Yes.

17 Q Where, if anywhere, in the record does the
18 Agency find that a balanced, indigenous population of
19 shellfish, fish and wildlife still exist in the
20 receiving waters of Lake Michigan?

21 A Pardon me?

22 Q Did the Agency make a finding anywhere on the
23 record that there is in fact a balanced, indigenous
24 population of fish, shellfish and wildlife in the

1 receiving waters?

2 A Directly, no.

3 Q Now I will direct your attention to page 666
4 that's been referred a few times in the Responsiveness
5 Summary. I want to say it's H in that book?

6 A No.

7 Q E?

8 A Yes.

9 Q So at the bottom of the page the question is
10 posed, "What current and historical data did Illinois
11 EPA have regarding impingement and/or entrainment at
12 this facility?" And then the Agency responses, "The
13 Illinois EPA used the data provided in the 1975/1976
14 study conducted in accordance with the 316(b) of the
15 Clean Water Act."

16 Isn't it true that the referenced studies
17 are not located in the record?

18 A I don't believe those studies in their
19 entirety are in the record, no.

20 Q Thank you.

21 You also stated a few minutes ago that the
22 Agency did not determine that closed cycle cooling was
23 interim BTA. I hope I didn't screw up what you said.
24 But --

1 A Something to that effect.

2 Q Something to that effect?

3 A Yes.

4 Q Can you point to where that is in the record,
5 where that finding was made?

6 A It's kind of proving a negative. There is
7 no -- that determination doesn't exist.

8 Q Okay. When you stated a few minutes ago that
9 there is no evidence that the existing technology
10 doesn't meet interim BTA requirements, what legal
11 standard were you measuring the evidence against? How
12 did you decide there's no evidence proving that?

13 A Well, the BTA standard itself does not
14 contain any criteria upon which to make a
15 determination; it's solely based on the Agency's best
16 professional judgment.

17 Q Thank you.

18 And you talked a little bit about the
19 non-objection letter from you, the EPA?

20 A Yes.

21 Q Is it your understanding that a
22 non-objection letter should be construed as an
23 affirmative approval of USEPA?

24 A I believe it is what it says it is, a letter

1 of no objection.

2 HEARING OFFICER HALLORAN: Thank you.

3 MS. DEXTER: I have no further questions.

4 HEARING OFFICER HALLORAN: Thank you. Mr. Nagra?

5 MR. NAGRA: Just one minute.

6 No further questions, Hearing Officer.

7 HEARING OFFICER HALLORAN: Miss Franzetti?

8 MS. FRANZETTI: Yes.

9 CROSS EXAMINATION

10 By: Ms. Franzetti

11 Q I'd like to go back to the EPA letter,
12 Mr. LeCrone. It's Exhibit K, Respondent's Exhibit K.
13 Go back again to record number Page 622.

14 A Okay.

15 Q And with respect to counsel's questions about
16 it's a no objection letter, so what does that mean?
17 Does it mean that USEPA, for example, reviewed your
18 draft proposal and did not find any basis to object to
19 it as being contrary to the applicable regulations and
20 laws?

21 A Correct. It means they have reviewed our
22 draft permit and find that it meets the requirements of
23 the Clean Water Act.

24 Q Okay. Now, you also testified a little while

1 ago about the Hanlon Memo?

2 A Yes.

3 Q And how that was a wakeup call that things
4 were going to be done differently going forward,
5 correct?

6 A Correct.

7 Q Okay. And USEPA Region 5 particularly did
8 bring that to the Illinois EPA's attention, correct?

9 A Correct.

10 Q And that's what you were referring to when
11 you said there were other thermal discharge permits or
12 proposed permits where USEPA Region 5 had raised this
13 issue of questioning the adequacy of the information
14 the Illinois EPA had to renew a thermal effluent?

15 A Yes, it did. It began a review of all the
16 thermal relief that had been granted and the legal
17 authorities under which that relief was granted and how
18 the Agency treated that relief that had previously been
19 granted by the Board.

20 Q And all of that preceded the issuance of this
21 November 25th, 2014, letter with no objection to the
22 renewal of the Midwest --

23 A Those discussions and that sort of thing?

24 Q Yes.

1 A Yes.

2 Q Okay. And the USEPA, in staying on this
3 Page 622, in Paragraph 1, expressly references the
4 thermal alternate limit, doesn't it?

5 A Number one 1 622, it does reference the
6 316(a), yes.

7 Q So is it your understanding that USEPA
8 Section 5 had in fact specifically paid attention to
9 this draft permit proposed renewal of the 316(a)
10 alternate thermal effluent limit?

11 A They did. They conducted a full review of
12 the draft.

13 Q And similarly, they singled out in
14 Paragraph 3 on that same page your agency's best
15 professional judgment determination with respect to the
16 cooling water intake structure; is that correct?

17 A Correct.

18 Q Now, counsel for petitioners -- I'm sorry.
19 I'm going back for a moment to this 316(a)
20 issue with respect to this letter. Counsel for
21 petitioners has pointed out that there was not a new
22 plume study done as part of the renewal process for
23 this Waukegan Station permit, correct?

24 A Correct, yes.

1 Q Is it your understanding that the sub-part K
2 regulations that the Board has found applicable to this
3 permit, they require a new thermal plume study before
4 an alternate effluent limit can be renewed?

5 A I do not believe that sub-part K requires
6 that a new thermal plume study be conducted.

7 Q Is it your understanding that it is a site-
8 specific decision based on all of the relevant
9 information before the Agency?

10 A Yes. It's the information necessary to
11 justify continuation.

12 Q Did USEPA in talking to you about this issue
13 ever say to you, you must require a new thermal plume
14 study before you can renew such an alternative effluent
15 limit?

16 A I do not recall them ever mentioning or
17 requiring a new thermal plume study.

18 Q Now, you testified earlier just in terms of
19 your background, that you've been with the Agency, I
20 think it's 24 years this past May?

21 A Yes.

22 Q And I think you also testified that you've
23 been involved in the decisions by the Agency to issue
24 renewed NPDES permits for electric generating stations?

1 A Yes.

2 Q And in that context, I take it you have had
3 experience in looking at thermal discharges from the
4 various electric generating stations in Illinois?

5 A Yes.

6 Q Because you've been involved in that since
7 2009?

8 A In my managerial role, yes. And prior that
9 that, I was a permit writer.

10 Q Okay. So were you a permit writer from the
11 time you joined the Agency 24 years ago?

12 A Yes.

13 Q So have you been dealing with over the whole
14 24 years as electric generating station NPDES permits
15 come up for renewal? You've had some experience?

16 A Yes. I was never the permit engineer for the
17 Waukegan Station permit, but I was for most of the
18 others.

19 Q Most of the others in the state?

20 A Yes.

21 Q Roughly, can you give us an idea of how many
22 that is?

23 A I believe all of them, except for the Midwest
24 Generation permits.

1 Q All right. Now, in the course of that, I
2 take it you have seen thermal plume studies?

3 A Yes.

4 Q So you're generally aware of --

5 A I'm aware of what they are.

6 Q -- what they are?

7 A Yes.

8 Q Okay. I just wanted to establish that as a
9 foundation.

10 And you were mentioning in responding to
11 Ms. Dexter's questions that the plume here should have
12 been smaller based on, I think you mentioned heat
13 rejection rate, reduction in flow rate, nature of the
14 discharge canal?

15 A Correct.

16 Q Can you elaborate a bit on --

17 MS. DEXTER: Objection. This is not contained in
18 the Administrative Record.

19 MS. FRANZETTI: It's his working knowledge, his --

20 HEARING OFFICER HALLORAN: Could you read back the
21 question, please?

22 (The question was so read
23 by the court reporter.)

24 MS. DEXTER: I think we're veering off the

1 general --

2 HEARING OFFICER HALLORAN: Well, I'll allow a
3 little latitude. You may proceed.

4 BY MS. FRANZETTI:

5 Q Can you explain the basis for the opinion you
6 expressed that this plume, this thermal plume, should
7 have been smaller today than it was back in the late
8 70's when the Board originally granted the thermal
9 alternate effluent limit?

10 MS. DEXTER: I'm going to object again, because
11 none of this basis is in the record. It should be in
12 the record --

13 MS. FRANZETTI: The reduction in the heat rate is.
14 The reduction in the flow is.

15 HEARING OFFICER HALLORAN: I'll allow it.

16 MS. FRANZETTI: The distinction of our discharge
17 canal is.

18 HEARING OFFICER HALLORAN: Excuse me, Miss
19 Franzetti. I allowed it. The witness may answer.

20 THE WITNESS: The size of the plume would be a
21 function of the flow and velocity exiting the discharge
22 canal. If the dimensions of the canal and the water
23 levels do not change, then a reduction in flow would
24 result in a reduced velocity exiting that same

1 dimensional cross-section of the discharge canal, so
2 that effect should result in a smaller plume or a
3 smaller influence on that velocity exiting out into the
4 lake.

5 BY MS. FRANZETTI:

6 Q From your familiarity with this permit
7 record, and there is a diagram showing the discharge
8 canal, but I don't want to take the time to make you go
9 to it if you --

10 Let me just ask it outright. Are you
11 generally familiar with the discharge canal location?

12 A The canal itself, not with like the
13 cross-sectional dimensions of it or that sort of thing.

14 Q No, no. Exactly.

15 But so the heated effluent is discharged
16 into a canal, correct?

17 A Correct.

18 Q Right. It's not discharged into an open area
19 nearshore where it might immediately hang a 180-degree
20 turn and hit the shore?

21 A No, because the canal exits into the lake,
22 but the -- I guess it depends on how you want to
23 characterize the discharge from the outfall. You know,
24 it exits the plant into the canal, the canal enters the

1 lake.

2 **Q Exactly. Okay.**

3 MS. FRANZETTI: No further questions.

4 HEARING OFFICER HALLORAN: Miss Dexter, recross?

5 MS. DEXTER: Nothing further.

6 HEARING OFFICER HALLORAN: Okay. Let's take a
7 short recess, please. Five minutes.

8 (There was a break taken, after
9 which the hearing was resumed
10 as follows:)

11 HEARING OFFICER HALLORAN: All right, thanks.

12 We're back on the record. My esteemed
13 panel, they informed me they do not have any questions
14 of this witness or any other witness.

15 My question is, are you going to do
16 closings, or are you going to save those for the
17 Briefs?

18 MS. DEXTER: I'll save them for the Briefs.

19 HEARING OFFICER HALLORAN: Okay. Have we
20 decided -- I'm sorry. Closings, Miss Franzetti? Or
21 Mr. Nagra?

22 MS. FRANZETTI: No. We'll address it in the post-
23 hearing Brief.

24 HEARING OFFICER HALLORAN: Terrific. Have you

1 discussed the briefing schedule based on how far
2 Midwest is going to waive their decision back?

3 MS. FRANZETTI: Yes, we have, Mr. Halloran.

4 What we agreed upon is that all parties
5 would file their post-hearing Briefs not later than
6 November 14th.

7 HEARING OFFICER HALLORAN: So they are going to be
8 simultaneous.

9 MS. FRANZETTI: Correct. But then, because
10 everybody wants to have the last word, there would be
11 an opportunity for any party to file a Reply Brief not
12 later than December 14th. That takes into account the
13 Thanksgiving intervening holiday, as well as my
14 understanding that the Attorney General's Office has a
15 few layers of approval to go through to get a Brief
16 approved for filing. So that's the rationale behind
17 the proposed schedule.

18 I recognize that it was mentioned the
19 first meeting in February, February 2nd Midwest
20 Generation has a little concern that given the
21 intervening Christmas holiday, it may not give the
22 Board enough time to waive the decision only to
23 February 2nd. So I was going to propose we'll waive it
24 to February 16th of 2017; and also suggest that perhaps

1 a status conference with you, Mr. Halloran, at the end
2 of January, so that in the event the Board does need
3 additional time, that they can convey that to you and
4 you could use that status conference to request that
5 Midwest Generation provide some additional waiver of
6 time to allow the Board to finish its work to issue its
7 Order and opinion in the case.

8 HEARING OFFICER HALLORAN: Based on your
9 suggestions, December 14th, that would be the close of
10 the record?

11 MS. FRANZETTI: Correct.

12 HEARING OFFICER HALLORAN: So that would -- I mean
13 these guys are good and they should be finished by
14 February 2nd, but if we run into problems, that's
15 great.

16 I would suggest January 19th at
17 11:00 A.M., have a conference call with me.

18 MS. FRANZETTI: I'm sorry. What day of the week
19 is that?

20 HEARING OFFICER HALLORAN: That's a Thursday.

21 MS. FRANZETTI: Could we go into the afternoon?

22 HEARING OFFICER HALLORAN: 1:30?

23 MS. FRANZETTI: Right.

24 HEARING OFFICER HALLORAN: And then Midwest

1 Generation, you said you're going to file February
2 16th, 2017, waiver?

3 MS. FRANZETTI: Yes.

4 HEARING OFFICER HALLORAN: Okay. So that's good.

5 So it sounds like simultaneous Briefs by
6 the parties due on or before November 14th. And
7 simultaneous Replies are due December 14th.

8 Is there anything else we need to discuss
9 before we go home? Everybody has waived closings, so
10 all right. Thank you so much. Have a good, safe trip
11 home.

12 MS. DEXTER: Thank you.

13
14 (Which were all the proceedings
15 had and testimony taken at the
16 hearing of the above-entitled
17 cause.)
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24

1 STATE OF ILLINOIS)
) SS.
2 COUNTY OF DU PAGE)

3
4 I, GLORIA APOSTOLOS SIOLIDIS, C.S.R., duly
5 qualified and commissioned for the State of Illinois,
6 County of DuPage, do hereby certify that I reported in
7 shorthand the proceedings had and testimony taken at
8 the hearing of the above-entitled cause, and that the
9 foregoing transcript is a true, correct, and complete
10 report of the entire testimony so taken at the time and
11 place hereinabove set forth.

12
13
14
15 GLORIA APOSTOLOS SIOLIDIS
 CSR License #084-001205
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