

ORIGINAL

ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
WATER QUALITY STANDARDS AND) R08-9
EFFLUENT LIMITATIONS FOR THE)
CHICAGO AREA WATERWAY SYSTEMS) (Rulemaking-
AND LOWER DES PLAINES RIVER) Water
PROPOSED AMENDMENTS TO 35 ILL.)
ADM. CODE 301, 302, 303, AND)
304.

REPORT OF THE PROCEEDINGS held in the above entitled cause before Hearing Officer Marie Tipsord, called by the Illinois Pollution Control Board, taken by Steven Brickey, CSR, for the State of Illinois, 160 North LaSalle Street, Chicago, Illinois, on the 23rd day of September, 2013, commencing at the hour of 9:30 a.m.

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A P P E A R A N C E S

MS. MARIE TIPSORD, Hearing Officer
MS. ALISA LIU
MS. CARRIE ZALEWSKI
MR. ANAND RAO
MR. JERRY O'LEARY
MS. JENNIFER BURKE
MS. DEANNA GLOSSER

1 MS. TIPSORD: Good morning. My name
2 is Marie Tipsord and I've been appointed by the
3 Board to serve as Hearing Officer in this
4 proceeding entitled Water Quality Standards and
5 Effluent Limitations for the Chicago Area Waterway
6 Systems and Lower Des Plaines River proposed
7 amendments to 35 Ill. Adm. Code 301, 302, 303, and
8 304.

9 This is Docket Number R08-9.
10 Sub Docket D. With me today to my immediate right
11 is Dr. Deanna Glosser the presiding Board member.
12 To her right -- let me go this way. To my
13 immediate left is Carrie Zalewski, Board Member
14 Carrie Zalewski; to her left is Board Member Jerry
15 O'Leary; to his left is Board Member Jennifer
16 Burke; to my right after Dr. Glosser is Anand Rao
17 and Alisa Liu from our technical unit. Also with
18 us today is Chad Crew who is Board Member
19 Zalewski's assistant and Josh Shirley, an intern
20 this semester from SIU.

21 Today's hearing is the second
22 day devoted solely to Sub Docket D, but it is, for
23 those of you still keeping count, the 53rd day
24 overall in this proceeding. We will continue to
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1 number the exhibits sequentially and we are
2 continuing today with the testimony of the
3 Illinois Environmental Protection Agency Scott
4 Twait in support of the amendment -- in an
5 amendment to the proposal. We will begin with
6 Scott answering some leftover questions from the
7 last hearing and then we will proceed with Midwest
8 Generation where I believe we are on question
9 number 26.

10 MS. FRANZETTI: That is my
11 understanding as well.

12 MS. TIPSORD: Then we will go to
13 Exxon Mobil followed by the Illinois Environmental
14 Regulatory Group and conclude with Stepan Company
15 this morning. As a reminder, anyone may ask a
16 question. I do ask that you raise your hand, wait
17 for me to acknowledge you. After I have
18 acknowledged you, please state your name and whom
19 you represent before you begin your questioning.

20 Please speak one at a time. If
21 you speak over each other, the court reporter will
22 not be able to get your questions on the record
23 and as always please note that any questions asked
24 by a Board member or staff are intended to help
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1 build a complete record for the Board's decision
2 and not to express any preconceived notion or
3 bias.

4 With that, Dr. Glosser, anything
5 to say?

6 MS. GLOSSER: No.

7 MS. TIPSORD: With that then, we'll
8 begin with Mr. Twait and let's have him sworn in
9 again just to be on the safe side.

10 WHEREUPON:

11 SCOTT TWAIT

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

14 MS. TIPSORD: Okay. Mr. Twait, you
15 had a couple questions you wanted to respond to?

16 MS. DIERS: First, I'll identify
17 myself. I'm Stephanie Diers, counsel for Illinois
18 EPA. There were a few questions that we were
19 going to do follow up with. One was asked by
20 Ms. Franzetti, a couple were asked by Mr. Fort. I
21 don't see him. He indicated he may have follow up
22 so we can hold those if that's okay with you.

23 MS. TIPSORD: Okay.

24 MS. DIERS: Ms. Franzetti asked on
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1 page 32 and 33 of the last hearing about species
2 of concern by US EPA. So, Scott, can you explain
3 that for the record?

4 MR. TWAIT: Yeah, there's concerns
5 for the CAWS and Brandon Pool aquatic life Use B
6 waters. US EPA was concerned that growth was not
7 protected during the summer for golden shiner and
8 fathead minnow, bluntnose minnow, black bullhead
9 and green sunfish and was concerned that survival
10 was not protected during the exceedance hours for
11 golden shiner and bluntnose minnow. For CAWS
12 aquatic life Use B waters, US EPA was concerned
13 growth was not protected during the summer for
14 bluntnose minnow and white sucker and was
15 concerned that survival was not protected during
16 the exceedance hours for bluntnose minnow and
17 white sucker.

18 MS. FRANZETTI: If I can just take a
19 minute.

20 MR. TWAIT: If I need to repeat any
21 of those, let me know.

22 MS. FRANZETTI: Actually -- and just
23 for the record, my name is Susan Franzetti. I am
24 here on behalf of Midwest Generation. Scott, if
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1 you wouldn't mind going back up to the first
2 category that was the Ship Canal?

3 MR. TWAIT: That was B waters, which
4 include Brandon Pool and so that would include the
5 Sanitary and Ship Canal.

6 MS. FRANZETTI: Right. Okay. But
7 the first list you gave about growth and survival,
8 which waters did that apply to?

9 MR. TWAIT: That was to aquatic life
10 Use B waters.

11 MS. FRANZETTI: Use B waters. And
12 then the second category applied to what? Are you
13 double checking?

14 MR. TWAIT: Yeah. Let me --

15 MS. FRANZETTI: Go ahead. Take
16 whatever time you need.

17 MR. TWAIT: The second group would
18 have been A waters. Thank you.

19 MS. FRANZETTI: If you wouldn't
20 mind, would you read for growth on the Use B
21 waters the list of species one more time?

22 MR. TWAIT: Yes, golden shiner,
23 fathead minnow, bluntnose minnow, black bullhead
24 and green sunfish.

1 MS. FRANZETTI: Mr. Twait, did US
2 EPA provide any aquatic life data to support or
3 explain these concerns.

4 MR. TWAIT: No, they pointed back to
5 our -- Chris Yoder's reports and he has the growth
6 number in there and obviously has the UILT, upper
7 incipient lethal temperature, in there.

8 MS. TIPSORD: Mr. Twait, could you
9 specify which report you're referring to when you
10 say the Chris Yoder report since he has several
11 different articles and stuff in the record? I'll
12 try and look, too.

13 MR. TWAIT: I believe it's Exhibit
14 15.

15 MS. TIPSORD: Temperature Criteria
16 Options for the Lower Des Plaines River Final
17 Report to the US EPA.

18 MR. TWAIT: Yes.

19 MS. TIPSORD: That is Exhibit 15.
20 Mr. Read, you had a follow up?

21 MR. READ: We pass.

22 MS. FRANZETTI: Mr. Twait, just a
23 clarifying question. When the US -- when you
24 referred to the US EPA's concerns regarding
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1 survival during exceedance hours, those -- that is
2 the percentage of time provided for under the
3 proposed rule that the numeric standard can be
4 exceeded by a certain number of degrees?

5 MR. TWAIT: By two degrees Celsius
6 for two percent of the hours, yes.

7 MS. FRANZETTI: Okay. All right.
8 I'm going to resume my questioning and as Hearing
9 Officer Tipsord correctly noted we're at Exhibit
10 26. Given the Agency's prior belief that the UDIP
11 was capable of "minimally attaining" the General
12 Use standards, are there any parameters which the
13 Agency has concerns may not be attainable in the
14 UDIP?

15 MR. TWAIT: The Agency made the
16 comment that the Clean Water Act was minimally
17 attainable and not the standards, but the chloride
18 standard is something of concern.

19 MS. FRANZETTI: Only chloride?

20 MR. TWAIT: I believe so.

21 MS. FRANZETTI: Question 27. Please
22 explain the reason or reasons why the Agency
23 decided to revise its proposed thermal standards
24 for the Upper Dresden Island Pool (UDIP) to
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1 propose the General Use thermal standards in lieu
2 of the Agency's previously proposed thermal
3 standards.

4 MR. TWAIT: Based on my
5 understanding, if the Agency goes with the General
6 Use standards, then they -- then they don't need
7 US EPA approval since we're not changing the
8 standards. We're just changing the use.

9 MS. FRANZETTI: And why was it
10 relevant to the Agency that they didn't need US
11 EPA approval?

12 MR. TWAIT: We have some issues that
13 we haven't got complete agreement with US EPA and
14 we just would prefer to have something that won't
15 get a disapproval.

16 MS. FRANZETTI: Can you briefly
17 describe what those issues are you are referring
18 to?

19 MR. TWAIT: One concern is the RAS
20 species, the species that we chose to protect, and
21 the other is excursion hours and they did not
22 believe our excursion hours were protected enough.

23 MS. FRANZETTI: Did US EPA explain
24 how it would deal with the concept of excursion
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1 hours?

2 MR. TWAIT: No.

3 MS. FRANZETTI: With respect to the
4 RAS -- representative aquatics species, correct?

5 MR. TWAIT: Yes.

6 MS. FRANZETTI: With respect to the
7 RAS, are there species that the US EPA would
8 classify as RAS for the Upper Dresden Island Pool
9 that were not on the agency's RAS list?

10 MR. TWAIT: I'm not sure that they
11 did.

12 MS. FRANZETTI: So could you explain
13 a little more what the difference is between the
14 US EPA's position on RAS and the agencies?

15 MR. TWAIT: I believe they wanted to
16 look at additional species for the Use A and Use B
17 waters.

18 MS. FRANZETTI: Do you think they
19 also want to look at additional species for the
20 UDIP waters?

21 MR. TWAIT: I don't recall that, but
22 I don't think so. And if they did want to include
23 some at that point, it was not -- it would not
24 change the standard at all just because the ones
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1 that they were talking about including were less
2 sensitive to temperature.

3 MS. FRANZETTI: So just to clarify
4 because we got into this topic based on my
5 question of, you know, why was it relevant to the
6 Agency that by proposing General Use they could
7 attain -- they did not need to obtain the US EPA's
8 approval and you noted some issues that you hadn't
9 gotten complete agreement on between Illinois EPA
10 and US EPA and the two issues that you cited were
11 RAS and excursion hours. So do you think for the
12 UDIP, it was solely excursion hours?

13 MR. TWAIT: Yes, I believe so.

14 MS. FRANZETTI: Moving onto question
15 28. In Section 3 --

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

18 MS. FRANZETTI: Absolutely, Dr. Rao.

19 MR. RAO: You mentioned that if we
20 go with the General Use for UDIP that there is no
21 need for US EPA's approval. Are you talking about
22 approval of the water quality standards?

23 MR. TWAIT: Yes.

24 MR. RAO: In the Board's opinion,
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1 the Board noted when it proposed General Use for
2 UDIP that they -- you know, the Board would
3 consider standards in Sub Docket D to see what
4 would be appropriate for UDIP. In cases the Board
5 adopted a standard for one or two constituents
6 which are different from General Use standards, in
7 that situation, will you have to get US EPA's
8 approval?

9 MR. TWAIT: We will have to get the
10 US EPA's approval on the ones that changed.

11 MR. RAO: And do you think there
12 would be any concern if the Board adopted the
13 different standard for any of the constituents,
14 specifically the issues here like temperature and
15 chlorides?

16 MR. TWAIT: The Agency has resolved
17 as many as we can issues that US EPA brought up.
18 The remaining issue I don't -- I can't speak for
19 them, but I don't think it would be that big of a
20 deal whether it would be they would disapprove or
21 not, but I can't say for them.

22 MR. RAO: Okay. Thank you. I'm
23 done.

24 MS. FRANZETTI: Question 28. In
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1 section 302.211(d) of the General Use thermal
2 standards, it provides in relevant part for a
3 prohibition against a "maximum temperature rise
4 above natural temperatures of more than five
5 degrees Farenheit." Please explain whether the
6 Agency has considered how this provision would
7 apply to the Upper Dresden Island Pool if adopted
8 by the Board, including but not limited to, how
9 the "natural temperatures" of the Upper Dresden
10 Island Pool are to be determined for purposes of
11 determining compliance with the prohibition
12 against a temperature rise of more than five
13 degrees Farenheit.

14 MR. TWAIT: Typically, the Agency
15 would look at influent temperatures and compare
16 them to the temperature at the edge of the mixing
17 zone.

18 MR. DIMOND: Tom Dimond on behalf of
19 Stepan Company. Mr. Twait, when you refer to
20 influent temperatures, what if a discharger
21 doesn't have an influent temperature?

22 MR. TWAIT: Then it would have to be
23 compared to the upstream temperature.

24 MR. DIMOND: Where is the Agency
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1 going to get that data from?

2 MR. TWAIT: They would write it into
3 the permit the day that the discharger would need
4 to collect it if it was deemed to be necessary.

5 MR. DIMOND: So the Agency doesn't
6 have any of its -- any data collection on stream
7 temperatures?

8 MR. TWAIT: Not that would be
9 readily comparable to that particular day's
10 temperature for the discharger.

11 MR. DIMOND: Does the Agency -- the
12 General Use standards, of course, are applicable
13 generally throughout the state. Does IEPA
14 typically require dischargers throughout the rest
15 of the state to collect background temperatures to
16 show compliance with this standard?

17 MR. TWAIT: For larger facilities,
18 yes. It's necessary for their mixing zone
19 calculations. If they're using a mixing zone
20 model, they need to know what the upstream
21 temperature is to determine how much mixing is
22 available.

23 MR. DIMOND: What about a source
24 that doesn't have a mixing zone?
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1 MR. TWAIT: Then they would be
2 meeting the water quality standards at the end of
3 the pipe unless they had allowed mixing.

4 MR. DIMOND: Okay. But how does
5 that have -- how does that relate to this five
6 degrees above natural temperature standard? Is
7 that typically just not put in the permit if
8 they're meeting the thermal standards at the end
9 of the pipe?

10 MR. TWAIT: For a lot of facilities,
11 a lot of the smaller facilities, there is not a
12 potential to change the river temperature and so
13 the Agency does not put that into a permit.

14 MS. FRANZETTI: So, in other words,
15 Mr. Twait, you handled this issue very similarly
16 to how you handled any other water quality
17 standard in permitting, you look and see whether
18 there is a reasonable potential to exceed it and
19 if there is not, you don't need to address it in
20 the permit?

21 MR. TWAIT: Correct.

22 MS. FRANZETTI: Moving to
23 Subparagraph A, question 28. Is it the Agency's
24 position that there is such a thing as a "natural
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1 temperature" for an effluent dominated waterbody
2 like the UDIP?

3 MR. TWAIT: We would typically just
4 use it -- look at it as a background temperature.
5 I don't know that you would call it natural.

6 MS. FRANZETTI: Moving to B. Does
7 the Agency have any data or other information to
8 provide concerning what the "natural temperatures"
9 are for the UDIP?

10 MR. TWAIT: No.

11 MS. FRANZETTI: I believe you've
12 answered C, but let me just confirm. In terms of
13 what type of data would be necessary to determine
14 what the natural temperatures are for the UDIP
15 where a facility utilizes the river water then
16 that -- the relevant data would be its intake
17 temperature, correct?

18 MR. TWAIT: Yes.

19 MS. FRANZETTI: Where it does not,
20 it would be its discharge temperature if it did
21 not have allowed mixing, correct?

22 MR. TWAIT: If it --

23 MS. FRANZETTI: I'm sorry. I said
24 that wrong. Let me retract that. I just looked
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1 at what the question was. If it doesn't use river
2 water as influence for its operations, then if
3 there may be a reasonable potential to exceed it
4 may need to determine the natural temperature by
5 looking at the immediately upstream water
6 temperature?

7 MR. TWAIT: Yes.

8 MS. FRANZETTI: Moving to D.

9 MS. TIPSORD: Excuse me. Off the
10 record for just a second.

11 (Whereupon, a discussion was had
12 off the record.)

13 MS. TIPSORD: Back on the record.

14 MS. FRANZETTI: Subparagraph D of
15 question 28. Has the Agency considered that for a
16 once-through cooling water system like those at
17 Midwest Gen's Joliet station it is not uncommon
18 for the discharge temperature to be more than five
19 degrees higher than the intake temperature? If
20 so, would this temperature rise from intake to
21 discharge constitute a violation of this provision
22 of the General Use standards if they've become
23 applicable to the UDIP?

24 MR. TWAIT: No, we would not look at
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1 the intake temperature versus the discharge
2 temperature. We would look at the temperature at
3 the edge of the mixing zone.

4 MS. FRANZETTI: So moving onto the
5 next part of it. If there is an allowed mixing
6 zone for the discharge, is it correct that the
7 temperature rise provision would apply at the edge
8 of the mixing zone and not at the discharge
9 outfall?

10 MR. TWAIT: Yes.

11 MS. FRANZETTI: Subparagraph E.
12 Would the Agency considering revising its proposed
13 UDIP thermal standards to exclude this provision
14 on natural temperature rise of the General Use
15 thermal standards?

16 MR. TWAIT: For the most part, I
17 would say the Agency would not do that because
18 then it would have to be approved by US EPA and we
19 don't know if we can get approval for that.

20 MS. FRANZETTI: Moving onto question
21 29. In Section 302.211(b), as in boy, of the
22 General Use thermal standards it provides in
23 relevant part for a prohibition against a
24 "abnormal temperature changes that may adversely
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1 affect aquatic life unless caused by natural
2 conditions." Please explain whether the Agency
3 has considered how this provision would apply to
4 the Upper Dresden Island Pool if adopted by the
5 Board.

6 MR. TWAIT: I don't think it would
7 apply any different than any other pooled waterway
8 that we have.

9 MS. FRANZETTI: Could you explain
10 then how it does apply generally?

11 MR. TWAIT: I have not seen this
12 come up as an issue. The only thing that I could
13 think of would be if there would be a fish kill
14 and they wanted to use the fact that they changed
15 the normal temperature of the river and it
16 resulted in a fish kill.

17 MS. FRANZETTI: Subparagraph A
18 question. What is the Agency's understanding of
19 the intended meaning of "natural conditions" as
20 used in Section 302.211(b)?

21 MR. TWAIT: Just in general, I would
22 think it's a condition that is not manmade.

23 MS. FRANZETTI: I'm going to skip B
24 based on that answer and move to C. As applied to
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1 the UDIP, is the intent that the meaning of the
2 phrase "abnormal temperature changes" will not
3 include temperature changes that may be "abnormal"
4 for other Illinois surface waters, but which have
5 been characteristic of the UDIP based on
6 historical data?

7 MR. TWAIT: I would agree with that.

8 MS. FRANZETTI: Moving to question
9 30. In Section 302.211(c) of the General Use
10 thermal standards, it provides in relevant part
11 that "normal daily and seasonal temperature
12 fluctuations which existed before the addition of
13 heat due to other than natural causes shall be
14 maintained." Please explain whether the Agency
15 has considered how this provision would apply to
16 the Upper Dresden Island Pool if adopted by the
17 Board.

18 MR. TWAIT: We have not.

19 MS. FRANZETTI: So then with respect
20 to the Subparagraph A question what are the
21 "normal daily and seasonal temperature
22 fluctuations for the UDIP which existed before the
23 addition of heat due to other than natural
24 causes," is your answer that you do not presently
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1 know?

2 MR. TWAIT: I don't know
3 specifically. I would just say it's warmer in the
4 summer and cooler in the winter.

5 MS. FRANZETTI: B. Does the Agency
6 have any data or other information to provide
7 concerning what these normal temperature
8 fluctuations are for the UDIP?

9 MR. TWAIT: No.

10 MS. FRANZETTI: And then similar
11 question to the one I asked you earlier for
12 Subpart B of 302.211. Would the Agency consider
13 revising its proposed UDIP thermal standards to
14 exclude this provision of the General Use thermal
15 standards?

16 MR. TWAIT: In general, I don't
17 think we would since it would risk approvability.

18 MS. FRANZETTI: Okay. Moving onto a
19 question about compliance period for thermal --
20 new thermal standards. Question 31, Mr. Twait.
21 In your January 28, 2008, hearing testimony, you
22 testified in response to a question about what
23 would be a reasonable time to delay the effective
24 date of these standards that an appropriate amount
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1 of time could be somewhere more than a year and
2 less than 30 years.

3 Since then, has the Agency given
4 any further consideration to what would be a
5 reasonable time to delay the effective date of
6 these proposed thermal standards?

7 MR. TWAIT: I don't believe that US
8 EPA would approve a delayed effective date of the
9 water quality standard, but a compliance period
10 would definitely be appropriate.

11 MS. FRANZETTI: Mr. Twait, can you
12 explain how a compliance period would be
13 determined and whether that goes into a permit,
14 whether it would have to be dealt with in a
15 different way than as a permit term?

16 MR. TWAIT: It would typically go
17 into a permit and the length of time would depend
18 on what the applicant determined or demonstrated
19 that they needed to comply with the standard.

20 MS. FRANZETTI: So your
21 understanding is the burden is on the applicant to
22 justify how much additional time beyond the
23 effective date it needs in order to obtain
24 compliance with the new thermal standards?
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1 MR. TWAIT: Yes. And if other than
2 temperature, if they just needed to add a chemical
3 to the end of their process and it would take six
4 months for them to design it, buy it and set it
5 up, we're not going to give them a four-year
6 compliance period, but on the other hand if it is
7 going to take something longer than the applicant
8 would need to demonstrate that, you know, they
9 can't get it -- it's going to take at least four
10 years to design and build or more or whatever
11 length of time it is.

12 MS. FRANZETTI: By mentioning four
13 years, you just anticipated my next question.
14 This applies to thermal compliance periods if it
15 is going to take multiple years and that is
16 demonstrated. Is that allowed to have a
17 compliance schedule go beyond a period of three
18 years, which is sometimes -- why I'm asking that
19 is that is sometimes referenced in guidance as the
20 maximum amount of time that should be contemplated
21 for a compliance schedule.

22 MR. TWAIT: Compliance schedules
23 have gone longer than three years.

24 MS. FRANZETTI: Is this something
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1 particularly again on thermal that you have had
2 any discussions with US EPA Region 5 about?

3 MR. TWAIT: No, we haven't talked
4 about compliance schedules with them.

5 MS. TIPSORD: Mr. Read, do you have
6 a follow up to that?

7 MR. READ: Related to that would the
8 compliance schedule for something like what she is
9 talking about be -- need to be approved by US EPA?

10 MR. TWAIT: It would need approval
11 through the permitting process. They review I
12 won't say every permit, but they review some of
13 the permits and so it would just depend on whether
14 or not they're reviewing that particular permit.

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

17 MS. TIPSORD: Thank you. Mr. Fort
18 has joined us. So, Mr. Twait, if you would like
19 to go back to the previous question that Mr. Fort
20 had asked.

21 MS. DIERS: On page 147 at the last
22 hearing we had, there was a question about derived
23 water quality and the flexibility that the Agency
24 has with that and Scott is going to explain what
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1 he found on that issue.

2 MR. TWAIT: Mr. Fort specifically
3 asked about the Agency's use of discretion in
4 developing water quality criteria and I'm going to
5 point out in Section 302.621 they talked about
6 using resident and indigenous species and they
7 specifically say -- and also in Section 302.612
8 they talk about resident or indigenous species and
9 they talk about which species are required and
10 that's a requirement and then they also say if
11 resident or indigenous species are not available,
12 then testing of nonresident species can be used if
13 the nonresident species is of the same family or
14 genus and has a similar habitat and environmental
15 tolerance.

16 MS. FRANZETTI: Mr. Twait, just
17 briefly to make sure we get those down correctly.
18 You were citing to 302.621 and 302.612?

19 MR. TWAIT: Yes.

20 MS. TIPSORD: Mr. Fort, you had a
21 follow up?

22 MR. FORT: So the follow up for
23 this, Mr. Twait, then is that this would mean that
24 for a Use B or Use A waterbody you would be
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1 looking at those species of fish that are actually
2 there as opposed to a travel stream fish or some
3 other more intolerant species?

4 MR. TWAIT: That would be -- the
5 species that are there would be the resident
6 species. It's possible that you could have some
7 indigenous species that aren't there for a
8 particular reason, but, yes, the Agency would look
9 at typically what is in the waterway first.
10 That's where we get our site specific nature of
11 those rules.

12 MR. FORT: You would say you look at
13 the species that are there first. What else do
14 you look at then other than what is specifically
15 allowed in that regulation you just cited?

16 MR. TWAIT: You have to have five
17 species that meet particular requirements and you
18 have -- you have to have the five species so the
19 Agency -- the five species would -- we would try
20 to use resident or indigenous species. If a
21 resident or indigenous species wasn't available,
22 then we would look for a species that is similar,
23 same genus, same family and same tolerance as we
24 could.

1 MR. FORT: Thank you.

2 MS. DIERS: Mr. Fort, did you want
3 to ask the other question you had indicated to the
4 Agency?

5 MR. FORT: Yes. Thank you, counsel.
6 Mr. Twait, at the last hearing, I asked about what
7 water quality standard conditions now existed in
8 the waters that were designated as Use B and, of
9 course, I'm focusing on the Ship Canal, and
10 particularly the Lower Ship Canal, you were able
11 to call off the top of your head a few parameters
12 that you thought you had -- that the Agency had
13 water quality data on, but you were going to go
14 back and check in to see what you had with the
15 information the Agency had in terms of water
16 quality information. So have you been able to do
17 that?

18 MR. TWAIT: Yes, and I believe the
19 standards that are not currently being met or may
20 have some instances of -- well, all water quality
21 data has an opportunity to be above the standard,
22 but the following are ones that we think are
23 problematic: Dissolved oxygen, pH sometimes goes
24 below the 6.5 and chloride when we have a winter
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1 snow melt condition and then I put a question mark
2 for mercury. The Agency doesn't have any
3 particular data on low level mercury, but Citgo
4 demonstrated that there was a high result during
5 high flow and I don't want to say that this is
6 problematic, but the data is there and so, I mean,
7 it could be an issue.

8 MR. FORT: So the data you are
9 referring to is information that I believe
10 Mr. Huff had in one of his earlier testimonies in
11 this proceeding that showed during a high flow
12 event that there were higher levels of mercury in
13 the Citgo intake?

14 MR. TWAIT: Yes.

15 MR. FORT: Is there any other
16 information other than what Mr. Huff provided for
17 Citgo?

18 MR. TWAIT: No. And I did note that
19 the annual average was less than the water quality
20 standard. And so I don't want to say it's
21 problematic because the Agency hasn't looked at it
22 other than having that one data point.

23 MR. FORT: And you don't have any
24 data on fish consumption for the Lower Ship Canal
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1 either?

2 MR. TWAIT: I'm not positive one way
3 or the other. I was thinking we did, but I don't
4 know with that -- I might have.

5 MS. TIPSORD: While Mr. Twait is
6 looking for that, you're Mr. Jeffrey Fort
7 representing who?

8 MR. FORT: Yes. Thank you, Madame
9 Hearing Officer. Jeff Fort, Dentons, on behalf of
10 Citgo.

11 MR. TWAIT: The Agency does have
12 data on the mercury sampling of fish.

13 MR. FORT: From what area?

14 MR. TWAIT: Des Plaines River,
15 Chicago Sanitary and Ship Canal, the Cal-Sag
16 Channel, Little Calumet River, Calumet River, the
17 Chicago River, South Branch and the North Branch
18 and the North Shore Channel.

19 MR. FORT: Does the Ship Canal
20 reference that you made, does that cover the Lower
21 Ship Canal?

22 MR. TWAIT: It looks like there is
23 four segments that we have data from.

24 MR. FORT: Of the Ship Canal?
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1 MR. TWAIT: Yes, so it would
2 probably be most of the Ship Canal.

3 MR. FORT: And are these predator
4 fish or just fish samples?

5 MR. TWAIT: They're fish samples.
6 There is a couple largemouth bass and some common
7 carp and channel catfish.

8 MR. FORT: That is in this data set
9 that you're referring to?

10 MR. TWAIT: Yes.

11 MR. FORT: Do you know if there is
12 anything in the Lower Ship Canal of those predator
13 species?

14 MR. TWAIT: I'm not sure which ones
15 are from the Lower. They're labeled as which
16 station and I'm not sure offhand which station
17 that is.

18 MR. FORT: Maybe we can talk at
19 break and see if we can figure it out or go to
20 another hearing.

21 MS. TIPSORD: Mr. Read, you had a
22 follow up?

23 MR. READ: Matt Read on behalf of
24 Exxon Mobil. Can you tell us how old that data
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1 is?

2 MR. TWAIT: Some of it was from --
3 it shows I had a sample from 1989, but most of the
4 samples are from '99 to 2006 or 2008.

5 MS. FRANZETTI: Susan Franzetti.
6 Would the Agency mind, it doesn't have to be right
7 now if you're not prepared to, but providing that
8 data that Mr. Twait is obviously referring to as
9 an exhibit in the record?

10 MR. TWAIT: Yes, we can provide
11 that.

12 MR. READ: Would you expect anything
13 has changed since the '80s and '90s?

14 MR. TWAIT: Yes, it says '89. I
15 would actually have to go back and look at that
16 and see if it meant '99 because none of the other
17 data is previous to 1999. I would not -- if that
18 is truly a 1989, I would not expect it to be
19 representative.

20 MR. RAO: Is this data collected by
21 the Agency?

22 MR. TWAIT: I believe so.

23 MR. READ: How far back would you
24 consider the data when you're developing a 303(d)
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1 list?

2 MR. TWAIT: I'm not sure.

3 MS. TIPSORD: Mr. Harley, you had a
4 follow-up as well?

5 MR. HARLEY: Ms. Franzetti asked my
6 question.

7 MS. TIPSORD: Go ahead, Mr. Fort.

8 MR. FORT: Thank you. Mr. Twait,
9 you indicated that chlorides could be problematic.
10 Did I hear that testimony correct?

11 MR. TWAIT: Yes.

12 MR. FORT: Back in March of 2008, I
13 think I asked you some questions about the
14 chloride standard and the use of road salt for
15 winter conditions and snow melt conditions and
16 you've made some statements then that I wanted to
17 see if they're still your views now. One of them
18 was you said that you thought the Agency could
19 work with municipalities to make sure that best
20 management practices are implemented. Do you
21 recall making that statement?

22 MR. TWAIT: Yes.

23 MR. FORT: Do you still believe that
24 statement today?

1 MR. TWAIT: Yes, I believe so. The
2 Agency is still working with US EPA on the
3 chloride issue and I think that's a way forward.

4 MR. FORT: You also stated you were
5 hopeful that implementation of best management
6 practices would allow the proposed chloride
7 standard to be met. Do you still believe that?

8 MR. TWAIT: I don't know that best
9 management practices will allow the standard to be
10 met.

11 MR. FORT: Why have you changed your
12 view in the last four years, five years?

13 MR. TWAIT: Based on data. The
14 most -- some of the data that I've seen recently
15 it had a sample as high as 900 mg/L. So that
16 would take basically a 50 percent reduction to
17 meet the water quality standard and I don't know
18 if there can be a 50 percent reduction in salt use
19 in the Chicago area.

20 MR. FORT: Okay. So that comes down
21 to a feasibility question of how much of a
22 reduction can you get with BMP efforts, correct?

23 MR. TWAIT: Yes.

24 MR. FORT: That's all I have. Thank
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1 you.

2 MS. FRANZETTI: Just one clarifying
3 question. Mr. Twait, you were asked some
4 questions by Mr. Fort that used the phrase
5 predator species. Can you just for clarity in the
6 record explain what your understanding is when you
7 were answering those questions of the term
8 predator species?

9 MR. TWAIT: Well, he, I believe,
10 asked if there were any predator species or other
11 species. I believe the predator species would be
12 fish that eat other fish and a largemouth bass
13 would fit that category. Some of the other
14 species that I mentioned were not predator
15 species.

16 MS. FRANZETTI: Thank you. I
17 thought that's what it meant, but I thought I
18 could clarify that.

19 MS. TIPSORD: We're going to go to
20 Exxon Mobile, Mr. Read, but if you want to come up
21 and ask your follow-up question at that point.

22 Go ahead, Mr. Read. You had a
23 follow up to that earlier line of questioning as
24 well.

1 MR. READ: Yes. This goes back to
2 the 303(d) question I had. For a more traditional
3 parameter, what would the lookback period be for
4 determining impairment under 303(d)?

5 MR. TWAIT: I'm not the 303(d)
6 expert, but they provide a new list every two
7 years and so they're adding parameters based on
8 that two-year period that they're looking back,
9 but the previous stuff stays in there for a number
10 of years and I don't know how long it stays in
11 there once it is listed. It probably stays in
12 there until it gets reevaluated.

13 MR. READ: I can move onto the
14 pre-filed questions. Question one. Where does
15 the Illinois EPA currently collect water samples
16 along the Lower Des Plaines River?

17 MR. TWAIT: Water quality samples
18 are collected nine times per year at Ruby Street
19 Bridge in Joliet and that's G-23 and that's part
20 of the ambient stations network. Additional water
21 quality samples are collected at Brandon Road,
22 which is G-12 and I-55, which is G-01. That's
23 part of the Agency's intensive basin monitoring
24 program and these are collected three times from
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1 May through October on a five-year cycle.

2 MS. TIPSORD: I'm confused by the
3 nine times. Nine times at Ruby Street Joliet,
4 nine times at Brandon Pool I-55?

5 MR. TWAIT: The nine times at Ruby
6 Street it's an ambient station that we have. We
7 go out there. I think it comes out to every six
8 weeks. So we get nine samples a year and they do
9 that year in, year out. The other two stations at
10 Brandon Road and I-55 when we do an intensive
11 basin survey we do that once every five years then
12 they take three samples during the summer at those
13 stations.

14 MS. TIPSORD: Thank you.

15 MR. READ: I think we can move to
16 question two. The First Notice Opinion and Order
17 in Sub Docket C lists five constituents that were
18 reviewed as part of the LDPR Use Attainability
19 Analysis ("UAA") and, at that time, were not
20 meeting the General Use standards. This is at the
21 First Notice at 220.

22 Based on current data, what
23 constituents would Illinois EPA conclude are not
24 currently meeting the General Use standards in the
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1 LDPR, or that may not meet the standards in the
2 near future due to predicted trends?

3 MR. TWAIT: The IEPA intensive basin
4 water quality data collected in 2008 indicates
5 compliance with General Use standards. However,
6 only three samples were collected at each of the
7 two sites. MWRD collected water quality data from
8 2008 to 2010 for the Upper Dresden Island Pool.
9 Four stations were sampled 13 times within the
10 Upper Dresden Island Pool and results indicated
11 possible noncompliance with fecal chloroform.
12 However, there is not a fecal chloroform standard.
13 I'm sorry. So it doesn't need to meet fecal
14 chloroform and just as a side note all the other
15 standards I believe were being met from that data
16 set and MWRD has discontinued this particular
17 monitoring program.

18 MR. READ: So do you have any
19 predicted trends based on that?

20 MR. TWAIT: No, I don't know that we
21 do. I did not look at what would be predicting
22 it. The data looks like it could meet the General
23 Use standard with the possible exception of
24 chloride since the Sanitary and Ship Canal has
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1 high chlorides. That might be a problem also, but
2 the Agency's data collection did not demonstrate
3 that.

4 MR. READ: And that would be based
5 on Sanitary and Ship Canal data?

6 MR. TWAIT: Yes, since that's the
7 major water source.

8 MR. READ: Subpart A --

9 MS. TIPSORD: Excuse me, Mr. Read.
10 Mr. Dimond has a follow up. I apologize.

11 MR. READ: It's all right.

12 MR. DIMOND: Tom Dimond on behalf of
13 Stepan. Mr. Twait, the intensive sampling that
14 was the basis for your prior answer, did you
15 indicate that that was done during the summer
16 months?

17 MR. TWAIT: Yes, I believe I did.

18 MR. DIMOND: Okay. So if it was
19 done during the summer months, you wouldn't see
20 residual impact from snow melt salting during that
21 period, right?

22 MR. TWAIT: No.

23 MR. DIMOND: Thank you.

24 MS. TIPSORD: Go ahead, Mr. Read.
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1 MR. READ: To my Subpart A now.
2 What is the process Illinois EPA envisions by
3 which an existing point source discharge is
4 transitioned to the new water quality standards?

5 MR. TWAIT: The Agency's plan is to
6 address the new water quality standards when the
7 NPDES permit is renewed and the Agency has been
8 talking about how best to sequence them or whether
9 it would be better to sequence from upstream to
10 downstream or to do them collectively and we have
11 not made a decision on what the best approach
12 would be.

13 MS. TIPSORD: Ms. Franzetti has a
14 follow up.

15 MR. READ: Just to what he just
16 said. By upstream to downstream, do you mean in
17 the entire system or just the UDIP?

18 MR. TWAIT: The Agency hasn't made
19 that decision.

20 MS. TIPSORD: Go ahead,
21 Ms. Franzetti.

22 MS. FRANZETTI: Mr. Twait, I'm a
23 little confused on how you would do that because
24 if you're saying you're going to handle it when
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1 the permits are up for renewal, don't all the
2 different dischargers have different renewal dates
3 and so how would you be able to do any sort of
4 sequencing?

5 MR. TWAIT: Yes, I'm not sure how
6 the Agency will go about doing that, but we
7 acknowledge that it would be -- for temperature,
8 it would be unfair or unwise to work on the
9 downstream facilities first before the larger
10 upstream facilities. So I'm not quite sure how
11 the Agency will handle that.

12 MR. READ: To follow that same line.
13 What if an upstream discharger would need a
14 modification that can take time and effect the
15 compliance schedule?

16 MR. TWAIT: A compliance schedule
17 would be applicable.

18 MR. READ: For the downstream?

19 MR. TWAIT: For any of the
20 dischargers.

21 MS. TIPSORD: Let me see if I -- I'm
22 a little confused on how the Agency anticipates
23 working on doing this. So what you're saying is
24 let's just say, for example, we'll use the
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1 district because they are probably the discharger
2 that is furthest upstream and I'm making these
3 numbers up, this is not in the record, but let's
4 say they discharge at 100 degrees all the time for
5 thermals. You would not change the standards, the
6 effluent standards for anyone downstream all the
7 way to I-55 until you first addressed the
8 district's discharge?

9 MR. TWAIT: I'm not quite sure how
10 the Agency is going to handle it, but one thing
11 that I can see is that if the district was
12 influencing the waterway the entire way and so the
13 water quality standards were being exceeded, but
14 they were meeting the secondary contact standards
15 and then you had a small discharger that goes in
16 there, he is not going to be able to get a mixing
17 zone if the upstream waters are not meeting the
18 water quality standards. So if we worked on his
19 permit first, then he would have to meet the limit
20 at the end of his pipe. I think that's
21 problematic.

22 I think the upstream discharger
23 would need to do what they need to do so that the
24 water quality standards met at the next downstream
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1 discharger and so they can determine if they might
2 be a small facility whether mixing is available or
3 mixing is not available.

4 MS. TIPSORD: Okay. That actually
5 brings me to a question, something we talked about
6 before in these hearings. Is your understanding
7 if the water quality standards were exceeded in
8 the stream, the water quality standards will have
9 to be met in the effluent at the discharge point,
10 is that correct, or will there be mixing?

11 MR. TWAIT: I believe that is
12 correct. The Agency can't give mixing where the
13 upstream standards are being violated.

14 MS. TIPSORD: Okay.

15 MR. TWAIT: And I don't mean it just
16 as violated once. I'm talking about a repetitive
17 violation where it would end up on the 303(d)
18 list.

19 MS. TIPSORD: Thank you. Sorry.

20 MR. RAO: If an upstream discharger
21 has, like, four years left on their permit before
22 renewal, is the Agency going to wait for that four
23 years or will they be able to revisit the permit
24 on a more timely scale?

1 MR. TWAIT: I don't know the answer
2 to that. I know that the Agency could open it up.
3 Resource-wise I don't know if the Agency will be
4 able to do that or will do that.

5 MS. TIPSORD: Mr. Harley?

6 MR. HARLEY: Keith Harley, for
7 Citizens Against Ruining the Environment. In that
8 scenario that was just described by Mr. Rao, the
9 obligation of the permit applicant is merely to
10 have their application submitted at that five-year
11 deadline, is that correct?

12 MR. TWAIT: I believe it's six
13 months prior to their expiration date.

14 MR. HARLEY: And what would be a
15 common period of time in addition to that for the
16 Agency to review and issue a draft permit, conduct
17 a public hearing and conclude with a final permit?

18 MR. TWAIT: It's going to vary.
19 Some small facilities get through without having a
20 hearing and they might be reissued shortly after
21 their permit expires and other major facilities it
22 might take a number of years.

23 MR. HARLEY: Thank you.

24 MS. TIPSORD: Mr. Dimond?
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1 MR. RAO: Also, just one more. You
2 mentioned earlier that you would include a
3 compliance period in the permit, which may range
4 from three years or longer. So in this scenario
5 where the renewal is like four years away after
6 the Board adopts a rule so the Agency will give a
7 compliance period after that four years is over
8 when you have reviewed the permit or will there be
9 specific situations where if it's a major
10 discharger you're going to look at it and see
11 whether they need to start with particular
12 compliance?

13 MR. TWAIT: That's an answer
14 somebody above me would have to answer. I don't
15 know the answer to that. The Agency has the
16 ability to reopen those permits on a more timely
17 manner. I don't know that their resources will
18 allow them to do that.

19 MR. RAO: Okay.

20 MR. DIMOND: Tom Dimond on behalf of
21 Stepan. Mr. Twait, in a situation where there is
22 an upstream discharger, you know, on temperature
23 that is creating -- that is creating an issue --
24 if no mixing -- if the exceedances are
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1 sufficiently repetitive that no mixing zone is
2 allowed, what -- has the Agency really thought
3 through what kind of relief the downstream
4 discharger might be able to receive and, if so,
5 you know, for example, would you consider not
6 applying the water quality standards at the end of
7 the pipe? And, if so, have you discussed that
8 with EPA and their acceptability of that in a
9 permit?

10 MR. TWAIT: No, we have not. I
11 think the Agency would be best served by making
12 the upstream facilities comply with the water
13 quality standard at the edge of their mixing zone
14 and then the downstream facilities can have
15 mixing.

16 MR. DIMOND: Thank you.

17 MS. TIPSORD: Mr. Andes?

18 MR. ANDES: Fred Andes for the MWRD.
19 Mr. Twait, are you aware of policies from US EPA
20 indicating that in issuing permits the Agency can
21 consider expected reductions from other sources in
22 the watershed?

23 MR. TWAIT: No, I was not. I don't
24 write permits for the most part. So, no, I was
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1 not.

2 MS. TIPSORD: Mr. Harley and then
3 we'll go back to Mr. Read.

4 MR. HARLEY: Just for purposes of
5 clarifying the record. In the situation that
6 you're describing where you are going upstream to
7 downstream, if that large upstream facility is in
8 the very beginning of its permit cycle, it could
9 be at least five and maybe more years before the
10 permit would be issued for that large upstream
11 facility, is that correct?

12 MR. TWAIT: It's possible.

13 MR. HARLEY: And the sequencing that
14 you would describe would be that you would wait
15 until the next permit cycle for those downstream
16 facilities after that?

17 MR. TWAIT: I'm not exactly sure how
18 the Agency would handle that.

19 MR. HARLEY: Thank you. Mr. Read?

20 MR. READ: This is another follow
21 up. If one of the downstream discharger needed a
22 modification of their permit in the meantime
23 before the upstream discharger obtained
24 compliance, how would that work?

1 MR. TWAIT: I'm not sure.

2 MR. READ: I think we covered B. So
3 based on your answer to number two about the
4 parameters of concern, you're anticipating mixing
5 zones being available?

6 MR. TWAIT: If the upstream data
7 demonstrates that the water quality standards are
8 being met, then mixing would be available.

9 MR. READ: When -- if they were
10 determined not to be met -- I know we just ran
11 through some --

12 MR. TWAIT: Yes. If they're not
13 being met, then a mixing zone would not be
14 available.

15 MR. READ: Would there then be a
16 TMDL study performed for the constituents?

17 MR. TWAIT: If it made it to the
18 303(d) list, that would be the next step.

19 MR. READ: And then there would be a
20 waste allocation based on the TMDL study?

21 MR. TWAIT: Yes.

22 MR. READ: Can you talk a little bit
23 about who performs this study and what kind of
24 resources the Agency has for these studies?
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1 MR. TWAIT: Are you asking about the
2 TMDL study?

3 MR. READ: Yes.

4 MR. TWAIT: Typically, the Agency is
5 having a consultant do the TMDL. I believe the
6 Agency has recently started to do some of the
7 TMDL's themselves, but typically it's a
8 consultant.

9 MR. READ: Is there a group then
10 whether it's the Agency or the consultant advising
11 a group --

12 THE COURT REPORTER: I'm sorry?

13 MR. READ: Advising a group at the
14 agency or is there an agency group that works on
15 these that -- what section is this talking about?

16 MR. TWAIT: I can't remember the
17 name of the group, but there is a group at the
18 Agency that oversees these.

19 MR. READ: Does that group have a
20 priority of streams or how do they prioritize what
21 streams gets the TMDL?

22 MR. TWAIT: They have a priority
23 system when they publish the 303(d) list.

24 MR. READ: Do you know the basis for
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1 that?

2 MR. TWAIT: No, I do not.

3 MR. READ: Do you know if it relates
4 to the quality of the stream?

5 MR. TWAIT: No, I don't know.

6 MR. READ: This is on the pre-filed
7 number three. In the pre-filed testimony of Scott
8 Twait, the amendment for Upper Dresden Island Pool
9 addressed the Board's first notice proposal and
10 deletes the temperature standard at Section
11 302.408(d). That's at the pre-filed testimony of
12 Scott Twait at page two. However, the Board's
13 first notice opinion also suggests adapting the
14 General Use standards in the area of temperature.

15 How does Illinois EPA intend to
16 adapt a UDIP water quality standard in Sub Docket
17 D in the area of temperature?

18 MR. TWAIT: It's the Agency's
19 attempt for the General Use thermal standards at
20 302.211 to be applicable.

21 MR. READ: Are there other areas or
22 water quality constituents besides temperature
23 that should be adjusted from General Use for the
24 UDIP in Sub Docket D?

1 MR. TWAIT: Would you rephrase your
2 question?

3 MR. READ: Sorry.

4 MR. TWAIT: Is that number four?

5 MR. READ: Yes, it's number four.

6 MR. TWAIT: The bacteria standard
7 would be one that would need to be changed from
8 the General Use. The Board adopted a use other
9 than primary contact. So the bacteria standard
10 and General Use standards would not be applicable,
11 but, otherwise, I would say no.

12 MR. READ: Not for chlorides?

13 MR. TWAIT: With the possible
14 exception of chlorides possibly.

15 MR. READ: Onto pre-filed five.
16 Does Illinois EPA envision any pollutants for
17 which the transition from secondary indigenous to
18 General Use will result in a scenario in which
19 there is a transition from no water quality
20 standard to a new water quality standard in which
21 the UDIP is impaired?

22 MR. TWAIT: The only -- the only one
23 that I would see would be possibly chloride and we
24 don't have the data to make that determination.
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1 MR. READ: When will you be -- do
2 you have a plan to obtain the data?

3 MR. TWAIT: I don't know that the
4 Agency is collecting that data.

5 MR. READ: So if there is no data,
6 how will you be making a determination about
7 mixing zones?

8 MR. TWAIT: We would allow a mixing
9 zone unless we have information demonstrating that
10 there is compliance -- that we would give a mixing
11 zone unless it was impaired or we had data showing
12 that it was not meeting the water quality
13 standard.

14 MS. FRANZETTI: If I may.
15 Mr. Twait, though, when you say that, do you
16 intend to include in that answer or base that
17 answer on the discharger does have to demonstrate
18 pursuant to the mixing zone regulation at 302.102
19 that they satisfy all of the requirements for a
20 mixing zone?

21 MR. TWAIT: Yes, they would need to
22 satisfy the provisions for a mixing zone.

23 MR. RAO: So the demonstration would
24 it include that they sample the receding waters to
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1 demonstrate that it's complying with the water
2 quality standard?

3 MR. TWAIT: The Agency would look to
4 it's data set. Typically if we're having a
5 parameter, we'll look at our upstream -- our
6 closest upstream ambient station and take an
7 average of the data that we have there and use
8 that as the upstream value. That's typically what
9 the Agency does.

10 MS. FRANZETTI: And where the Agency
11 doesn't have an upstream value, is that typically
12 the burden falls to the discharger to try and
13 collect that data to show the Agency what upstream
14 conditions are?

15 MR. TWAIT: It depends on the
16 conditions, but yes.

17 MR. READ: What if the designated
18 use of the upstream discharger is different?

19 MR. TWAIT: In what respect?

20 MR. READ: So the best sampling you
21 have is from the Sanitary and Ship Canal. Would
22 that be applied then to the UDIP?

23 MR. TWAIT: I believe that we have
24 a -- I believe we have a station in the Brandon
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1 Pool which would include the water from the Des
2 Plaines River and from the Sanitary and Ship
3 Canal.

4 MS. FRANZETTI: Mr. Twait, just for
5 clarification. In terms of where the upstream
6 sampling data is from, doesn't this start to get
7 rather parameter specific in terms of whether the
8 data from the upstream location that may be as far
9 upstream as the Ship Canal when you're looking at
10 a discharger in the UDIP that you need to consider
11 the fact that from that point to the point you get
12 to the discharger's outfall there could be a lot
13 of dilution or other forces at play that make that
14 data overstate potentially what the concentration
15 is immediately upstream of the UDIP discharger?

16 MR. TWAIT: In respect to parameters
17 that are not conservative such as temperature
18 where we would expect to see the heat dissipate,
19 then, yes, but for parameters that are not
20 conservative or that are conservative as long as
21 you're not getting additional dilution, then they
22 would be applicable.

23 MR. READ: Onto D. In light of
24 recent US EPA disapproval of a variance, are
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1 relief mechanisms such as variances and adjusted
2 standards available to existing sources?

3 MR. TWAIT: They are still available
4 and they would need to be granted by the Board and
5 approved by US EPA. If somebody is going to use
6 one of these mechanisms, then I would recommend
7 meeting with the Agency and US EPA to make sure
8 that the relief covers what the Board is asking
9 for and also fits into one of the boxes for US
10 EPA's relief.

11 MS. TIPSORD: Mr. Harley?

12 MR. HARLEY: The question assumes
13 that we all know about US EPA's recent disapproval
14 of a variance and I was wondering if some
15 clarification would be provided to the questioner
16 background regarding US EPA's disapproval of a
17 variance for purposes of the record?

18 MS. TIPSORD: Actually, I would
19 prefer that we clarify that if you don't mind
20 because it is a contested case currently pending
21 before the Board. So I think we should just say
22 it's PCB -- do you remember -- Jeff, do you know
23 the case number?

24 MR. FORT: 12.94 and 14.4.
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1 MS. TIPSORD: PCB 12.94 and PCB
2 14.4. It is pending before the Board. If you
3 want more details, please look there. I prefer we
4 not discuss it here as I said because it is a
5 contested case currently pending before the Board
6 and it is Citgo's PDV water variance that has --
7 in one case, the 12.94 US EPA is disapproved and
8 14.4 was a new variance petition. Those cases are
9 currently on status conferences and negotiations.

10 MR. READ: You spoke about meeting
11 with the Agency's. Would a discharger meet with
12 both Agency's together, Illinois EPA and US EPA?

13 MR. TWAIT: We've done that before.

14 MR. READ: Is it Illinois EPA's
15 understanding that a variance or an adjusted
16 standard can be granted with Clean Water Act
17 Section 303(c) approval that alters the numerical
18 water quality standard and yet protects the
19 existing use?

20 MR. TWAIT: Yes.

21 MR. READ: Onto pre-filed number
22 six. When adjusted standards and variances are
23 reviewed by Illinois EPA, is the impact to
24 downstream dischargers evaluated?

1 MR. TWAIT: Yes.

2 MR. READ: Can you give any kind of
3 description?

4 MR. TWAIT: Typically, we would not
5 approve a variance or support a variance if it was
6 taking away a mixing zone or some type of relief
7 from a downstream user without -- without working
8 with the downstream user and including them in the
9 relief.

10 MR. READ: I think you answered the
11 second part of that. So based on that answer, are
12 you saying then the variance would not apply to
13 the downstream discharger, that the water quality
14 standard would still have to apply?

15 MR. TWAIT: No, if someone was
16 seeking relief, I don't believe that the Agency
17 would recommend approval of it if it took away
18 somebody's mixing zone unless that relief included
19 the discharger that would be involved.

20 MR. READ: So that discharger, even
21 though the party not requesting the variance would
22 be involved, is that what you're saying?

23 MR. TWAIT: I believe that we would
24 get them involved, yes, if the relief would impact
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1 them.

2 MR. READ: And they would have to
3 file for a variance along with the upstream
4 discharger?

5 MR. TWAIT: I don't know the answer
6 to that. It might be in their best interest to be
7 involved.

8 MR. READ: Onto pre-filed number
9 seven. Will heated effluents subject to the
10 General Use water quality standards be subjected
11 to the thermal demonstrations required under 35
12 Ill. Adm. Code 302.211(f)?

13 MR. TWAIT: I believe the only
14 facility that would be applicable for this section
15 would be Midwest Generation and it's my
16 understanding that they've already done a
17 demonstration although it might have been for
18 downstream at the I-55 bridge. I don't know that
19 it would make sense to ask Midwest Generation to
20 redo the study. I believe the Agency's position
21 would be that they comply with the water quality
22 standards at the edge of the mixing zone or obtain
23 appropriate relief.

24 MR. READ: Can you comment at all
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1 about whether then they would have a mixing zone
2 for the new standard?

3 MR. TWAIT: Would who have a mixing
4 zone? Midwest Generation?

5 MR. READ: Yes.

6 MR. TWAIT: I think if they make the
7 demonstration that it's applicable, then, yes,
8 they could have a mixing zone according to the
9 mixing zone regulations in 302.102.

10 MR. READ: So this does not
11 trigger -- 211(f) does not trigger any new
12 obligation then despite a change in use?

13 MR. TWAIT: I'll let a lawyer make
14 that determination instead of trying to get
15 scolded.

16 MS. FRANZETTI: If I may. Because,
17 Mr. Twait, your prior answer was not that this
18 provision doesn't apply at all, it was that you
19 thought Midwest Gen had actually already made the
20 demonstration, albeit several years ago, that was
21 called for by 302.211(f), correct?

22 MR. TWAIT: Yes.

23 MS. TIPSORD: Mr. Harley?

24 MR. HARLEY: To clarify. Was the
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1 demonstration done for the Will County facility,
2 the Joliet facility or both?

3 MR. TWAIT: I'm not positive, but I
4 think the demonstration was done downstream at the
5 I-55 bridge and General Use waters and so it would
6 include all upstream sources that impacted the
7 I-55 bridge.

8 MS. FRANZETTI: Maybe for
9 clarification of the record, Mr. Twait, we've been
10 saying Midwest Gen, but at the time it was
11 Commonwealth Edison, correct?

12 MR. TWAIT: It could have been.
13 Thank you.

14 MR. READ: So that study only
15 considered south of the I-55 bridge?

16 MR. TWAIT: I was not around during
17 that time, but that's my understanding.

18 MR. READ: So you can't comment as
19 to whether that can satisfy the General Use north
20 of the I-55 bridge?

21 MR. TWAIT: No.

22 MS. FRANZETTI: If I may, another
23 few clarifying questions based on that last
24 question. Mr. Twait, you're generally aware that
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1 Midwest Gen has an adjusted standard AS96-10 for
2 thermal that applies at the I-55 bridge, correct?

3 MR. TWAIT: Yes.

4 MS. FRANZETTI: And do you generally
5 recall that other than the month of March and the
6 period from mid June through August the thermal
7 standards that have to be met by Midwest Gen at
8 the I-55 bridge are either more strict than the
9 General Use thermal standards or the same as the
10 General Use thermal standards?

11 MR. TWAIT: I believe that's
12 correct.

13 MS. FRANZETTI: And even during the
14 period in March and the period from June 16th
15 through August under that adjusted standard it is
16 only more lenient than the General Use thermal
17 standard by one degree, isn't that right?

18 MR. TWAIT: I believe that is
19 correct.

20 MS. FRANZETTI: And under that
21 adjusted standard and in Midwest Gen station's
22 NPDES permits there is a requirement to have
23 continuous thermal monitoring at the I-55 bridge,
24 isn't there?

1 MR. TWAIT: Yes.

2 MS. FRANZETTI: And that's been
3 going on since AS96-10 was approved, correct?

4 MR. TWAIT: Yes.

5 MS. FRANZETTI: And the Agency gets
6 that data -- that's reporting on that data from
7 Midwest Gen as part of its BMR reporting under its
8 NPDES permits, right?

9 MR. TWAIT: Yes.

10 MS. FRANZETTI: And isn't it the
11 case that there has been consistent compliance
12 with those General Use thermal standards as
13 monitored at the I-55 bridge?

14 MR. TWAIT: I have not looked at it,
15 but that would not surprise me.

16 MR. READ: Have there been any
17 provisional variances issued?

18 MR. TWAIT: I believe there has been
19 some provisional variances in the last couple of
20 years.

21 MS. TIPSORD: For clarification,
22 issued to Midwest Generation or issued
23 generally --

24 MR. READ: Issued to Midwest
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1 Generation.

2 MR. TWAIT: Yes.

3 MS. TIPSORD: All right. Let's take
4 a ten-minute break and we'll come back with IERG's
5 questions.

6 (Whereupon, a break was taken
7 after which the following
8 proceedings were had.)

9 MS. TIPSORD: Good morning.

10 MR. DAVIS: How are you today?

11 Madam Hearing Officer, Board members and technical
12 staff, good morning. My name is Alec Davis and I
13 represent the Illinois Environmental Regulatory
14 Group or IERG. On behalf of IERG, I'd like to
15 thank the Board for providing this opportunity to
16 participate today. We had some pre-filed
17 questions for the Agency's witness. I realize
18 that some of these questions cover ground that
19 we've already tread pretty heavily upon and so I
20 apologize for some of the overlap, but I'm going
21 to try to keep it brief.

22 So I guess diving right in.

23 We'll start with number one. At page 175 of the
24 Board's First-Notice Opinion and Order in Sub
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1 Docket C, under "Concerns in Determining
2 Appropriate Aquatic Life Uses," the Board notes
3 that while the Agency had three categories of uses
4 it did not make any distinctions among those uses
5 with respect to the proposed water quality
6 standards. Further, the amended proposal, filed
7 on May 24 by the Agency, only makes distinctions
8 with respect to temperature and dissolved oxygen,
9 but for no other chemicals. In crafting the water
10 quality standards necessary to protect for the
11 aquatic life uses designated by the Board, to what
12 extent did the Agency consider other chemical
13 constituents besides dissolved oxygen and
14 temperature?

15 MR. TWAIT: Well, I want to go back
16 up to your question, your first sentence. The
17 Agency does have a distinction between the three
18 uses for temperature, dissolved oxygen and ammonia
19 and your second sentence was not accurate because
20 the Agency did not propose any changes for
21 dissolved -- I mean, for dissolved oxygen or
22 temperature for the Use A and Use B waters and for
23 answering your questions the Agency looked at the
24 ammonia standard and for Use B waters we did not
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1 have an early life stage present category so
2 that's why the ammonia was different and the
3 Agency specifically looked at pH. The national
4 criterion document allows pH between 6.5 and 9.0
5 as acceptable and also acceptable is a pH between
6 6.0 and 6.5 where the carbon dioxide is above 100
7 mg/L.

8 The Agency looked at those
9 situations where it would still be acceptable and
10 it changed a small percentage of them. The
11 district gave us the pH data and it only made
12 acceptable a very small proportion of those that
13 were under 6.5 and the Agency looked at chloride
14 data or the chloride standard and the cadmium
15 standard and, however, when we removed species
16 from those national criterion documents the
17 standard became more stringent and, finally, for
18 cyanide the Agency has gone on record saying we
19 would -- we think a cyanide change would be
20 applicable.

21 MR. DAVIS: You're talking about a
22 change to the amended proposal for cyanide?

23 MR. TWAIT: Yes. The district
24 pointed out that they have some site specifics --
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1 site specific rulemakings for the Chicagoland area
2 where they've specifically taken out cold water
3 species and it made the standard less stringent
4 and so we would be agreeable to do that for these
5 waters.

6 MR. DAVIS: Okay. Thank you. I
7 guess A, the aquatic life use designations
8 proposed by the Board for first-notice acknowledge
9 that the waterbodies so designated are not fully
10 capable of achieving the full aquatic life use
11 goals of the Clean Water Act, however, the water
12 quality standards proposed by the Agency in some
13 instances (for example, in the cases of dissolved
14 oxygen, temperature, and mercury) are more
15 stringent than the water quality standards for
16 General Use waters.

17 Given that the existing water
18 quality standards for General Use waters are
19 protective of the aquatic life use goals of the
20 Clean Water Act, what is the rationale for
21 proposing more stringent standards for the Chicago
22 Area Waterways and Brandon Pool Aquatic Life Use B
23 waters of the Lower Des Plaines River given their
24 lesser aquatic life use goal?

1 MR. TWAIT: To answer your question,
2 the reason for having more stringent standards is
3 to protect from toxic conditions and we know more
4 now than we did when we developed the General Use
5 standards and I'd like to go back to your example
6 for more stringent standards. You mentioned
7 dissolved oxygen, but that one is not more
8 stringent than General Use standards.

9 MR. RAO: Can I ask a follow-up
10 question?

11 MR. DAVIS: Please.

12 MR. RAO: You mentioned that the
13 proposed standards for I think it's aquatic life
14 Use A and Use B waters were more stringent based
15 on the new information that the Agency has
16 collected or gathered.

17 Does the Agency have any plans
18 to update the General Use waters to reflect the
19 new information?

20 MR. TWAIT: I think eventually, yes,
21 that when we do the triennial review some of these
22 parameters will come up in the future and the
23 Agency will address them at that time.

24 MR. RAO: Okay.
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1 MR. DAVIS: I guess are you aware of
2 any situations where waters subject to the current
3 General Use standards were compliant with the
4 current standards and yet were failing to obtain
5 the general aquatic life use goal?

6 MR. TWAIT: Yes.

7 MR. DAVIS: Can you provide some
8 specifics?

9 MR. TWAIT: Well, we have waters on
10 our 303(d) list and those are waters that aren't
11 attaining their goal.

12 MR. DAVIS: And yet were compliant
13 with the applicable water quality standards?

14 MR. TWAIT: Yes. Because they have
15 habitat -- or some of them might have habitat
16 limitations.

17 MR. DAVIS: So would then a more
18 stringent water quality standard rectify that?

19 MR. TWAIT: No.

20 MR. DAVIS: Thank you. B kind of
21 overlaps with Mr. Rao's question, but I'll ask it
22 anyway. Does the Agency ultimately intend to
23 apply more stringent water quality standards
24 proposed in its revised amendments to Part 302
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1 Subpart D the General Use waters? And, if so, has
2 the Agency initiated or does it plan to initiate
3 outreach to potentially impacted stakeholders
4 elsewhere in the state who may have an interest in
5 this proceeding?

6 MR. TWAIT: During the triennial
7 review process, the Agency may decide to update
8 individual water quality standards and if the
9 Agency does do that, outreach will happen at that
10 time.

11 MS. TIPSORD: Mr. Dimond?

12 MR. DIMOND: Tom Dimond for Stepan.
13 When is the next time that the General Use water
14 quality standards come up for triennial review?

15 MR. TWAIT: We look at it every -- I
16 don't know if we're consistent on looking at it
17 every three years, but we just got -- once we
18 start the process and make a proposal to the
19 Board, then that goes through. We just got done
20 with one for boron, fluoride, manganese and we
21 corrected our zinc at that time. And the Agency
22 is already working on some constituents for the
23 future. The newest criteria that came out is the
24 ammonia criteria for US EPA and a new bacteria
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1 standard has been promulgated by US EPA. So those
2 are some things that we're going to be dealing
3 with in the future.

4 MR. DIMOND: So as the Agency
5 processes the triennial review process, it sounds
6 like it's parameter specific, is that correct?

7 MR. TWAIT: Yes.

8 MR. DIMOND: Has the Agency
9 currently formulated any plans for timing of
10 potentially seeking to revise the General Use
11 temperature standards?

12 MR. TWAIT: We have not.

13 MR. DAVIS: I guess my final
14 follow-up again on this whole series would be your
15 process of then developing those new proposals,
16 would that include, you know, a full analysis of
17 the data and the wildlife that you're protecting
18 for in the context of determining what the
19 appropriate standard would be?

20 MR. TWAIT: Yes. And we would look
21 at whether there is now toxicity data that has
22 come along since.

23 MR. DAVIS: My concern I guess is
24 for those who might have a concern that a
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1 precedent would be set here in this proceeding
2 that they didn't know they should be paying
3 attention to. So I was just looking for
4 reinsurance that you're going to be going back to
5 round one and developing those standards in such a
6 manner.

7 MR. TWAIT: I believe that would be
8 accurate.

9 MR. DAVIS: Okay. Moving onto our
10 number two. Does the Agency acknowledge the
11 potential for periodic exceedances of its proposed
12 water quality standards due to contaminants
13 present in the waterways from such sources as
14 sediment and storm water runoff?

15 MR. TWAIT: Yes, we think there
16 probably would be periodic exceedances.

17 MR. DAVIS: Is the Agency aware of
18 mercury levels that may exceed the proposed water
19 quality standards due to resuspension of sediments
20 containing mercury?

21 MR. TWAIT: I don't believe we have
22 that data for whether the sediment is -- what
23 happens when the sediment is resuspended, but it
24 does make sense that mercury is attached to a
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1 soluble form in the sediment and then if it gets
2 resuspended that it would enter the water column.

3 MR. DAVIS: So will --

4 MR. FORT: Excuse me. If I can jump
5 in. Can you clarify what you just said,
6 Mr. Twait? Did you say that the mercury is
7 soluble and attached to a sediment or it's in a
8 particulate form attached to a sediment?

9 MR. TWAIT: It attaches to a
10 particulate.

11 MR. FORT: Thank you.

12 MR. DAVIS: Would you characterize
13 that as an existing physical condition or part of
14 the nature of the receding body of water?

15 MR. TWAIT: For this one, I would
16 say yes.

17 MR. DAVIS: Moving onto 2Ai.

18 Illinois EPA has listed waterbodies as impaired
19 based on Illinois Department of Natural Resources
20 fish tissue concentrations of mercury (see 2012
21 Illinois Integrated Water Quality Report and
22 Section 303(d) List.) Is there a fish tissue
23 based human health water quality standard for
24 mercury in Illinois?

1 MR. TWAIT: No.

2 MR. DAVIS: How does the IDNR fish
3 tissue based human health criterion (methyl
4 mercury) compare to US EPA's standard?

5 MR. TWAIT: The Fish Contaminate
6 Monitoring Program is jointly administered by
7 Illinois EPA, IDNR and Illinois DPH. They have an
8 advisory system based on -- they have one for men
9 and women beyond their child bearing age and that
10 limits -- they have a system where if there is so
11 much mercury that they can -- if the samples have
12 a certain amount of mercury, they can either have
13 unlimited use of the fish, limit it to one meal
14 per week, one meal per month and a recommendation
15 of not to eat it and then they also have a similar
16 chart for children and women of child bearing age
17 and the US EPA's national criterion, and those are
18 in mg/kg total mercury, their recommendations --
19 and US EPA has a national criterion for tissue and
20 theirs is 0.3 mg/kg of methyl mercury as opposed
21 to total mercury.

22 MR. DAVIS: And the range of the
23 jointly administered program standards? Did I
24 miss that or do you have those?

1 MR. TWAIT: I didn't give you the
2 range. For women of child bearing age and
3 children, the unrestricted is 0 to 0.05 mg/kg.
4 One meal per week is 0.06 to 0.22 mg/kg. The one
5 meal per month is 0.23 to 0.99 mg/kg and do not
6 eat is anything greater than 0.99 mg/kg.

7 MR. DAVIS: Okay. I think that will
8 satisfy.

9 MS. TIPSORD: Just to clarify. DPH
10 is Department of Public Health?

11 MR. TWAIT: Yes.

12 MS. TIPSORD: Thank you.

13 MR. DAVIS: Is the IDNR fish tissue
14 based human health criterion equivalent to the
15 current General Use and proposed 12 nanograms per
16 water column criterion?

17 MR. TWAIT: The water quality
18 criterion they set at 12 ng/L to prevent fish from
19 accumulating excess mercury. Other than the fact
20 that US EPA adopted 12 ng/L as the national
21 criterion to protect -- to prevent excess
22 bioaccumulation of mercury in fish, there is no
23 linkage between the fish-flesh action levels and
24 the water quality standards.

1 MR. DAVIS: Has IDNR or the Illinois
2 EPA collected side-by-side samples of fish tissue
3 and water column data with which to translate
4 between the two?

5 MR. TWAIT: We have not.

6 MR. DAVIS: Number five I believe we
7 covered this morning already so if anyone has any
8 follow ups on that. Moving onto B. Given the use
9 of the Metropolitan Water Reclamation District of
10 Greater Chicago effluent data as the basis for
11 determining non-summer months thermal
12 temperatures, did the Agency review the district's
13 effluent data to see whether there are any mercury
14 and chloride detections? And, if so, at what
15 levels?

16 MR. TWAIT: The Agency did look at
17 mercury data for the renewal of their permit and
18 their effluent data had an annual average less
19 than 12 ng/L and so the Agency did not put a limit
20 for mercury, but they've got a monitoring
21 condition and to my knowledge we have not looked
22 at the chloride data.

23 MR. DAVIS: Would you agree that
24 those discharges given the effluent dominated
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1 nature of the Ship Canal and the Lower Des Plaines
2 River be a relevant factor to consider in setting
3 the mercury and chloride water quality standards?

4 MR. TWAIT: I don't believe so. No.

5 MR. DAVIS: Can you maybe elaborate
6 a little as to why not?

7 MR. TWAIT: We're protecting for
8 toxic events and if the district's discharge was
9 toxic, then we would expect them to control that.

10 MR. DAVIS: Thank you.

11 MS. TIPSORD: Mr. Read has a follow
12 up.

13 MR. READ: I have a follow up. The
14 MWRD data, how much below 12 ng/L was that?

15 MR. TWAIT: I don't know offhand.

16 MS. TIPSORD: Mr. Davis?

17 MR. DAVIS: Moving onto C. I think
18 we've already talked about this, but I'll go over
19 it again really quickly. Is the Agency aware of
20 high levels of chlorides in the waterways during
21 winter months due to road deicing activities?

22 MR. TWAIT: Yes.

23 MR. DAVIS: Given the proposed water
24 quality standard, does the Agency anticipate a
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1 nonzero level of noncompliance, i.e., no allowance
2 for taking into the consideration background
3 concentrations of chloride in the waterbody from
4 non-point sources such as road deicing activities?

5 MR. TWAIT: Yes, there will be
6 periods of non-compliance.

7 MR. DAVIS: To what extent has the
8 Agency considered how its proposal will impact
9 discharges of chlorides during winter months when
10 the waterways exceed the proposed chloride
11 standards?

12 MR. TWAIT: Several dischargers have
13 expressed concerns.

14 MR. DAVIS: Is Illinois EPA
15 considering updating the chloride water quality
16 standard? And, if so, what is the schedule for
17 doing so?

18 MR. TWAIT: Could I ask you which we
19 would -- I'm sorry. Let me try to answer the
20 question.

21 IEPA was considering using the
22 national criterion documents put out by US EPA for
23 Iowa's state standards, but US EPA has indicated
24 that they are currently revising their national
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1 criterion documents and neither of those
2 approaches would be approvable and so the Agency
3 decided to stick with its General Use standard of
4 500 mg/L.

5 MR. DAVIS: And that 500 mg/L
6 standard is based on what again?

7 MR. TWAIT: It is an old standard
8 that we've had since the '70s and has not been
9 updated. And I'll point out that the 500 mg/L is
10 between the acute standard for the national
11 criterion and the chronic standard for the
12 national criterion.

13 MR. DAVIS: Okay. Thank you.
14 Mr. Read has a follow up.

15 MR. READ: If it's an old standard,
16 would you expect US EPA to approve 500 mg/L?

17 MR. TWAIT: US EPA started out
18 saying they could not approve it and that's why we
19 were looking at changing it to their national
20 criterion documents or the more recent Iowa
21 standard. However, they came back at some point
22 before we provided our comments and said that
23 neither of those two options would be approvable
24 and so the Agency didn't make any changes.
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1 MR. RAO: Is the Iowa standard based
2 on the national criterion document or is it their
3 own?

4 MR. TWAIT: It's derived from the
5 national criterion document. However, they added
6 toxicity data from additional species and
7 recalculated it.

8 MR. RAO: Do you know what their
9 standard is? If you don't know, don't worry about
10 it. We can look it up.

11 MR. TWAIT: I don't know it offhand,
12 but I think I have it with me. They have made it
13 dependant on hardness, which the national
14 criterion document is not based on. So I don't
15 have a simple number to give you.

16 MR. RAO: All right.

17 MS. TIPSORD: Mr. Read?

18 MR. READ: Are there any river
19 segments that are currently designated as generous
20 that are impaired because of salt on roads because
21 of runoff?

22 MR. TWAIT: Yes. The Agency is
23 working on a TMDL for the DuPage County Workgroup
24 and I think there is another one for Salt Creek in
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1 the Chicago area.

2 MR. READ: And how is the impairment
3 being addressed in each of those?

4 MR. TWAIT: They're looking at doing
5 best management practices in the watershed to see
6 if they can come up with enough reductions to meet
7 the water quality standard.

8 MR. READ: So how would that be
9 implemented into a permit or an investment source?

10 MR. TWAIT: It's been accomplished
11 through a TMDL. So it's not -- I don't think it's
12 being addressed in their permit for the upstream
13 contributions.

14 MR. READ: Thank you.

15 MS. TIPSORD: Mr. Davis, Mr. Fort
16 has a follow up.

17 MR. FORT: Mr. Twait, if the
18 municipalities are implementing through the TMDL,
19 just take DuPage as an example, DuPage County as
20 an example, and there's a TMDL in place for
21 BMP and there's an industrial discharge into the
22 Fox River or whatever waterbody that is effected,
23 what happens to the industrial discharge or are
24 they regulated under the TMDL and it's not in the
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1 permit?

2 MR. TWAIT: Typically, the TMDL will
3 look at it and they'll give an allocation to the
4 dischargers in the watershed. If it's -- if it's
5 usually -- if it's a non-point situation, then
6 what I've seen in the past is they determine your
7 current load for that individual facility and give
8 them their current loading.

9 MR. FORT: Thank you.

10 MS. TIPSORD: Mr. Davis?

11 MR. DAVIS: I guess my only question
12 then is relating to the timing of the TMDL. How
13 does the Agency expect the sources to be able to
14 use chlorides on their facilities between such
15 time as these standards become effective and the
16 TMDL is developed for the waterways?

17 MR. TWAIT: The Agency is currently
18 still working with US EPA to see if we can resolve
19 that issue and I'm not quite sure how the Agency
20 will move forward with that portion.

21 MR. DAVIS: So would that be
22 something that would be discussed in the context
23 of this proceeding or would that be something that
24 the Agency imagines happening at some other time?
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1 MR. TWAIT: If it can be resolved
2 before this is done, then I would love to see it
3 be included, but, if not, then the Agency will
4 have to deal with it afterwards in some manner.

5 MS. TIPSORD: Mr. Dimond, you have a
6 follow up as well?

7 MR. DIMOND: Yes. Tom Dimond for
8 Stepan. Mr. Twait, in the situations you've
9 described in response to Mr. Fort's question, you
10 said typically an industrial facility is given its
11 current loading in the TMDL allocation. So does
12 that loading vary by the time period of the year
13 so that it accounts for potentially higher
14 discharges of chlorides during the winter salting
15 season?

16 MR. TWAIT: I'm not exactly sure how
17 they determine that loading. I would imagine that
18 they typically look at DNR data so it would be
19 included.

20 MR. DAVIS: Moving onto our number
21 three. Does the Agency have data showing whether
22 the ambient waters in the Chicago Sanitary and
23 Ship Canal and Lower Des Plaines River currently
24 attain the lower, that is 6.5, end of the range of
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1 the pH standards? And, if so, are mixing zones
2 available for pH if end of pipe pH is between 6.0
3 and 6.5?

4 MR. TWAIT: The Agency does have --
5 MWRD has some data where the pH was below 6.5 and
6 I don't know that the Agency gives mixing zones
7 for pH. I have not seen them, but I will note
8 that there is an effluent standard that they have
9 to meet between 6.0 and 9.0.

10 MR. DAVIS: Thank you. Illinois
11 EPA's revised proposal changes the methodology
12 used for evaluating the cyanide standard. Has
13 Illinois EPA generated data on the waterways
14 subject to this proceeding using the
15 ligand-exchange method and compared that to the
16 results of the weak acid dissociable method? If
17 so, how different were the results?

18 MR. TWAIT: The Agency has not made
19 a study of that.

20 MR. DAVIS: Thank you. Number five,
21 the Agency's proposed amendments for the
22 protection of human health in addition to the
23 earlier proposal aquatic life and wildlife
24 toxicity provisions proposed at Section 302.410 in
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1 their inclusion in the amendment to Subpart F,
2 procedures for determining water quality criteria,
3 appear to be intended to subject the CAWS and
4 aquatic life Use B Lower Des Plaines River waters
5 to the same toxicity based on the General Use
6 waters that is compared to Section 302.210 other
7 toxic substances.

8 Does the Agency intend for the
9 waters of the CAWS and LDPR designated as lower
10 uses to be subject to those General Use standards?

11 MR. TWAIT: Yes. With the exception
12 that none of these factors are -- none of the
13 factors for drinking water are going to be used.

14 MR. DAVIS: Okay. Has the Agency
15 analyzed the waterway's capability of meeting
16 those standards and what impact the proposal may
17 have on sources discharging to waterways?

18 MR. TWAIT: The Agency has not.
19 We've not had -- we typically don't collect water
20 quality data for all those parameters.

21 MS. TIPSORD: Mr. Dimond has a
22 follow up.

23 MR. DIMOND: Again, Tom Dimond for
24 Stepan. Mr. Twait, in regards to your response
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1 that you would not expect drinking water factors
2 will be used for the CAWS and the aquatic life Use
3 B waters, is that because those waters are more
4 recreational uses or a lower use that doesn't
5 provide for full contact recreation?

6 MR. TWAIT: No, it's because there
7 are no drinking water sources. In 302.648,
8 they've got three factors that they use and they
9 have what I call a splash factor, a gulp factor
10 and drinking water and for the splash factor they
11 have a -- it's for instances where you're not
12 swimming in the creek and you just get some
13 splashed up into your mouth. The gulp factor is
14 for swimming uses where you're actually swimming
15 in the water. It's the amount that they estimate
16 you'll be ingesting and there is for these waters
17 we've only got -- we're only using the splash
18 factor and the gulp factor. The gulp factor would
19 only be used in the segments where swimming is as
20 a use and the splash factor would be used
21 everywhere else.

22 MR. DIMOND: So if we look at -- the
23 proposal has been that the Upper Dresden Island
24 Pool would be classified as General Use and so
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1 that would be subject to 302.210 other toxic
2 substances. So since the -- but the Upper Dresden
3 Island Pool has also been classified as
4 non-contact -- I think it's incidental contact
5 recreation. So in applying 302.210 to the Upper
6 Dresden Island Pool, would you similarly expect
7 that you would only look at the splash factor and
8 not at the gulp and the drinking water standards?

9 MR. TWAIT: I believe that's
10 correct.

11 MR. DIMOND: Thank you.

12 MR. DAVIS: My final sub on that
13 series. Has the Agency considered retitling the
14 section to reflect the inclusion of a human health
15 component?

16 MR. TWAIT: I think it would be
17 appropriate. 5A contains a lot of information
18 related to trophic levels of fish. I don't know
19 if people would prefer me to read it. Some of it
20 might be considered testimonial. I can skip right
21 to the point if you have the background on the
22 question.

23 MS. DIERS: That would be good. Go
24 right to the point.

1 MR. DAVIS: Given that the chemical
2 quality improvements in the waterbodies will not
3 result in habitat quality improvement, and habitat
4 is the limiting factor in having sustainable
5 populations of bass in some of these waters, is
6 Illinois EPA intending to adjust the process for
7 driving Subpart F standards to request that
8 trophic levels of fish consumed and the rate that
9 trophic level fish is consumed?

10 MR. TWAIT: The trophic levels are
11 not used for the Subpart F methodology. The
12 trophic levels are used in Lake Michigan
13 derivation.

14 MR. DAVIS: So then I would assume
15 your answer to sub question B regarding the
16 bioconcentration factors for trophic levels of
17 concern is similar?

18 MR. TWAIT: Yes.

19 MR. DAVIS: I think I will ask C,
20 though. In Subpart F, resident or indigenous
21 species is defined as species which currently live
22 a substantial portion of their lifecycle or
23 reproduce in a given body of water, or which are
24 native species whose historical range includes a
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1 given body of water. The locks and dams on the
2 LDPR and its heavy navigation are recognized uses.

3 Does Illinois EPA intend to
4 revise the definition of resident or indigenous
5 species at 35 IAC 302.501(b) to specify that a
6 historical range will consider all limitations on
7 the historical range due to the current designated
8 conditions of the body of water?

9 MR. TWAIT: We're taking a look at
10 that.

11 MR. DAVIS: Thank you. Sub question
12 B. Again, I think this has some overlap of what
13 we discussed before. Given that these waters are
14 not a source of drinking water or used for
15 swimming, does Illinois EPA intend to revise and
16 republish the existing table Subpart F values to
17 reflect the lower adjustments to 0.001 liters per
18 day as the exposure to a chemical?

19 MR. TWAIT: The Agency will -- the
20 Agency develops those on a site specific basis and
21 will pick out the appropriate factor to use and in
22 this case we'll only be using the splash factor
23 and the gulp factor.

24 MS. TIPSORD: Yes?
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1 MR. WELCH: Lyman Welch for the
2 Great Lakes. When you're referring to these
3 waters, are you including the segments of the
4 Chicago Area Waterways that have a direct
5 hydrological connection to Lake Michigan?

6 MR. TWAIT: If you mean the Chicago
7 River, then yes.

8 MR. WELCH: And is it Illinois EPA's
9 intention not to use the drinking water standards
10 for those waterways that are connected to Lake
11 Michigan, which is a drinking water source?

12 MR. TWAIT: For the Chicago River
13 because of the Chicago Lock and Dam not letting
14 the water go out except for rare instances, then
15 yes. But places that are between the lake and the
16 O'Brien Lock and Dam the Agency might have to
17 reconsider that for those waters.

18 MR. WELCH: Okay. Thank you.

19 MS. TIPSORD: Mr. Davis?

20 MR. DAVIS: Number six, does the
21 Agency intend to provide any testimony to support
22 the proposed water quality standards beyond US EPA
23 guidance or criterion documents?

24 MR. TWAIT: Nothing beyond what has
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1 already been provided.

2 MR. DAVIS: So does the Agency
3 intend to provide any testimony on technical
4 feasibility or economic reasonableness of its
5 proposed amendments?

6 MR. TWAIT: No, these are just minor
7 changes to our original proposal.

8 MR. DAVIS: Does the Agency intend
9 to call any other witnesses to support their
10 revised water quality standards in its proposal?

11 MR. TWAIT: No.

12 MR. DAVIS: I'm going to deviate
13 from the script really quick here if you'll allow
14 me. Does the Agency, should the Board make a
15 change in the second notice to its proposal in Sub
16 Docket C, would the Agency intend to amend its
17 proposal in this sub docket based on whatever
18 changes may occur?

19 MR. TWAIT: It would depend on the
20 changes that the Board makes I would assume. I
21 mean, if you can provide an example maybe.

22 MR. DAVIS: I think that the
23 question probably called for you to speculate
24 quite a lot. So I just wanted to get your
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1 thoughts on the hypothetical, but I appreciate it.

2 Number seven, The Agency's
3 proposed deletion of the reference to Section
4 303.237 from Section 302.101 (Scope and
5 Applicability) appears to remove the UDIP from
6 Subpart D. Is the Agency's intent to remove the
7 UDIP from all provisions in Subpart D? What
8 provisions does the Agency intend to apply to the
9 Chicago River and UDIP?

10 MR. TWAIT: The first part of -- the
11 first answer is, yes, the Agency does propose to
12 remove the UDIP from all provisions in Subpart D
13 and as to the provisions admissible to the Chicago
14 River we would use the CAWS A waters and primary
15 contacts and for the UDIP we would use General Use
16 standards with incidental contact recreation
17 water.

18 MS. TIPSORD: A point of
19 clarification. I believe the Chicago River has
20 also been designated as a General Use water. So
21 would you apply CAWS Use A or General Use
22 standards?

23 MR. TWAIT: I think we would do -- I
24 think we would use the General Use standards with
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1 primary contact.

2 MS. TIPSORD: Thank you.

3 Mr. Harley?

4 MR. HARLEY: Based on your previous
5 answer relating to the waters between Lake
6 Michigan and the O'Brien Lock and Dam, what
7 designation are you proposing at this time for the
8 Calumet River or the O'Brien Lock and Dam?

9 MR. TWAIT: I believe that's CAWS
10 Use A.

11 MR. WELCH: Lyman Welch, Great
12 Lakes. Would there be any difficulty or issue if
13 you were to apply the General Use standards for
14 that segment between the O'Brien Lock and Dam and
15 Lake Michigan?

16 MR. TWAIT: For the most part, the
17 standards that we've proposed are more stringent
18 than general use standards.

19 MR. DAVIS: 7A. On page 221 of its
20 First-Notice Opinion and Order in Sub Docket C,
21 the Board indicates that "the Board will examine
22 water quality standards for UDIP in Sub Docket D
23 to ensure that the UDIP can meet the water quality
24 standards applicable under the General Use
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1 standard." Does the Agency plan to propose any
2 other different or additional water quality
3 standards for the UDIP that are not in the
4 existing General Use standards?

5 MR. TWAIT: At this time, no.

6 MR. DAVIS: Move onto number eight.
7 Is it Illinois EPA's understanding that the
8 amended proposal addresses all of US
9 EPA's concerns raised in its letter, dated January
10 29, 2010, (Public Comment No. 286, filed by
11 Illinois EPA with the Board on March 26, 2010)?
12 If not, which concerns remain to be addressed?
13 What is the Agency's plan for doing so?

14 A. The Agency has not been able to
15 address all of their concerns. The issues that
16 remain are for temperature, the RAS and the
17 excursion hours, cadmium, selenium and US EPA has
18 indicated that they would like us to include all
19 of the new national criterion documents that have
20 come out since our original proposal and the
21 Agency believes that all of those are best handled
22 on a statewide basis.

23 MR. DAVIS: So regarding those that
24 you have not been able to address, do you have a
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1 plan for doing so?

2 MR. TWAIT: We're still talking with
3 US EPA, but we may not be able to resolve our
4 issues, but we're still working on it.

5 MR. DAVIS: Number nine you may have
6 answered some of these, but is Illinois EPA aware
7 of any other concerns raised by US EPA since that
8 January 29, 2010, comment and, if so, what are
9 those concerns?

10 MR. TWAIT: They have brought up
11 several issues where they've -- where a new
12 national criterion document has been issued and,
13 like I said before, the Agency believes that is
14 best handled on a statewide basis.

15 MS. TIPSORD: Would you also agree
16 that the comments that were submitted in the PC
17 1372 could also be some additional questions that
18 they raised in public comment?

19 MR. TWAIT: Yes.

20 MR. DAVIS: So I guess to the extent
21 your continuing to work with US EPA would result
22 in additional amendments to your proposal, we
23 would expect to see those at some point again
24 during these proceedings?

1 MR. TWAIT: If something changes,
2 yes.

3 MR. DAVIS: Number 10. Is it
4 Illinois EPA's expectation that US EPA will in
5 conducting its review and approval of the water
6 quality standards for the CAWS and LDPR (as
7 reflected in the amended proposal) in accordance
8 with Section 303(c) of the Clean Water Act grant
9 approval without conditions?

10 MR. TWAIT: I cannot speculate on
11 what they'll do.

12 MR. DAVIS: Number 11. Illinois
13 EPA, per US EPA's suggestion is proposing the
14 addition of cold shock language. What are the
15 conditions under which cold shock occurs? For
16 example, what temperature change and over what
17 timeframe?

18 MR. TWAIT: We haven't defined the
19 change in temperature for the time change and if
20 the Agency had those particular numbers, then we
21 would have included them.

22 MR. DAVIS: So how will the proposed
23 language be implemented in the permits?

24 MR. TWAIT: Probably through a
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1 special condition citing the water quality
2 standards.

3 MR. DAVIS: Okay. Thank you.

4 Number 12. Is Illinois EPA envisioning the total
5 maximum daily load development as part of
6 addressing situations where water is transitioning
7 from having no water quality standard for a
8 particular parameter to, for example, a General
9 Use water quality standard for that parameter for
10 which the water is impaired?

11 MR. TWAIT: Are you talking about
12 chloride specifically?

13 MR. DAVIS: I think that provides a
14 good example. Go ahead.

15 MR. TWAIT: The Agency is still
16 working with US EPA on how to address that. Doing
17 a TMDL would work. We're trying to find out
18 something.

19 MR. DAVIS: So the remaining
20 subparts of my question there are probably subject
21 to whatever you work out with US EPA?

22 MR. TWAIT: Yes.

23 MR. DAVIS: Maybe my last point I
24 need to ask. In the interim, will the limits be
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1 based on the existing effluent quality?

2 MR. TWAIT: If we did a TMDL, then
3 yes.

4 MR. DAVIS: All right. Number 13,
5 which was my final question. Some states have
6 developed and received US EPA approval for
7 streamline variance rules for specific pollutants,
8 for instance, Indiana has a streamlined variance
9 program for mercury and I would refer you to 327
10 Indiana Adm. Code 5-35. What are Illinois EPA's
11 thoughts on this type of approach?

12 MR. TWAIT: If applicable, I think
13 the Agency would look to consider it, but, in this
14 instance, their streamline approach for mercury
15 variances are based on a much more stringent
16 mercury water quality standard.

17 MR. DAVIS: But, in concept, it's
18 something you would be willing to consider?

19 MR. TWAIT: In concept, I think the
20 Agency would be willing to look at that.

21 MR. DAVIS: Thank you. That's it
22 for us.

23 MS. TIPSORD: Okay. Mr. Dimond,
24 when you're ready.

1 MR. DIMOND: Good morning,
2 Mr. Twait. I'm Tom Dimond on behalf of Stepan
3 Company. I'm going to pass on our first question.
4 That's been adequately addressed in prior
5 questions and testimony. Our second question.
6 Does the Agency believe the temperatures measured
7 at the Route 83 and Cal-Sag Channel station are
8 more representative of the background temperatures
9 in the Lower Des Plaines River than the
10 temperatures measured at the Route 83 and Chicago
11 Sanitary and Ship Canal station?

12 MR. TWAIT: Yes.

13 MR. DIMOND: Why?

14 MR. TWAIT: We believe it's less
15 impacted from thermal sources and in this case
16 Fisk and Crawford.

17 MR. DIMOND: Our third question.
18 Approximately what percentage of the flow in the
19 Lower Des Plaines River originates from the
20 Cal-Sag Channel and approximately what percentage
21 of the flow in the Lower Des Plaines River
22 originates from the Chicago Sanitary and Ship
23 Canal?

24 MR. TWAIT: Based on the 7Q10 flow,
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1 I'm going to say 18 percent in the Cal-Sag Channel
2 and 72 percent in the Sanitary and Ship Canal.

3 MR. DIMOND: Eighteen and 72 adds up
4 to 90 not -- where is the other ten percent from?

5 MR. TWAIT: The other ten percent is
6 from the Des Plaines River upstream of the
7 confluence of the Sanitary and Ship Canal.

8 MR. DIMOND: Okay. Our fourth
9 question relates to the dissolved oxygen criteria
10 that the Agency proposed in 302.405(c). With
11 regard to the Agency's proposed 35 Ill. Adm. Code
12 302.405(c), is it the Agency's intent to require
13 calculations to be made on a rolling 24-hour
14 basis?

15 MR. TWAIT: Could you specify where
16 you're talking about effluent or stream data?

17 MR. DIMOND: Either one.

18 MR. TWAIT: Okay. Based on the
19 effluent -- based on the permits that have been
20 issued for General Use waters that have similar
21 standards, if not the same, I don't think they use
22 a 24-hour rolling basis.

23 MR. DIMOND: So do they just
24 calculate it on a calendar day 24 hours?
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1 MR. TWAIT: I believe so and most
2 facilities do not have a requirement of having
3 continuous data.

4 MR. DIMOND: So if they just have
5 one dissolved oxygen sample per day, then that
6 essentially is what has to meet the standard?

7 MR. TWAIT: Yes.

8 MR. DIMOND: Go to question number
9 five. With regard to the Agency's proposed 35
10 Ill. Adm. Code 302.405(c)1, is it the Agency's
11 intent that a daily mean can only be calculated if
12 hourly data exists for 24 consecutive hours?

13 MR. TWAIT: No, I don't think that
14 was our intent.

15 MR. DIMOND: So if dissolved oxygen
16 is collected and recorded for 23 or fewer hours
17 during a 24-hour period, you can -- you can
18 still -- a source could still calculate the
19 arithmetic mean based on the 23 or fewer hours of
20 data?

21 MR. TWAIT: I believe so.

22 MR. DIMOND: I'm going to pass on
23 number six. I think we've already answered that,
24 but I do have a question I want to ask about how
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1 the dissolved oxygen water quality standards are
2 implemented in permits.

3 Mr. Twait, I'm just going to ask
4 you to trust me on this. I looked at the Agency's
5 website this morning on public notice drafts of
6 permits -- NPDES permits that have had public
7 notices issued recently and it looked like in
8 general that the Agency was including dissolved
9 oxygen conditions in permits for either
10 significant municipal discharges or sewage
11 treatment plants, but other discharges -- other
12 discharges did not seem to have dissolved oxygen
13 standards in their permits.

14 Does the Agency have a policy or
15 a process for deciding which dischargers get the
16 dissolved oxygen criteria in their permits and
17 which don't?

18 MR. TWAIT: They do and I don't know
19 that I know all of their derivations or -- I don't
20 know if I know all of their exceptions. I know
21 that if they have a facility that doesn't have a
22 deoxygenating portion, then they won't get a DO
23 limit. So if your process doesn't involve
24 anything that has a BOD, you probably won't have a
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1 DO limit unless there is some extenuating
2 circumstances. All major municipals are getting a
3 limit in their -- a DO limit.

4 The minors I believe they're
5 only getting a limit if the water that they
6 discharge to or directly above is impaired. I'm
7 sorry. I take that back. The minors are getting
8 DO limits unless they have 5-to-1 dilution and if
9 they have 5-to-1 dilution, they don't get a DO
10 limit unless the waterbody is impaired.

11 MR. DIMOND: Okay. So for a minor
12 municipal discharger, if they have 5-to-1 dilution
13 or more and the water into which they're
14 discharging is not impaired, then they would not
15 get a limit?

16 MR. TWAIT: Yes.

17 MR. DIMOND: Okay. If you have an
18 industrial discharger that perhaps does have a BOD
19 component to their discharge, is there -- so they
20 have some BOD in their discharge, is there some
21 level at which the Agency considers it's not
22 likely to be a significant impact?

23 MR. TWAIT: That would be a call
24 that the permit section would have to make and I'm
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1 sure that it will depend on what their BOD for
2 their facility is and whether or not they've got
3 upstream flow and whether they meet the 5-to-1
4 dilution.

5 MR. DIMOND: Okay. That's all I
6 have.

7 MS. TIPSORD: Are there any other
8 follow ups? All right. Let's go off the record
9 for just one minute.

10 (Whereupon, a break was taken
11 after which the following
12 proceedings were had.)

13 MS. TIPSORD: Mr. Rao, do you have
14 one more question or Ms. Liu?

15 MS. LIU: I do. It's a simple
16 question regarding the proposal standard for
17 sulfate and you don't have to answer now if you
18 want to look into it later. That's fine.

19 In the proposed Section
20 302.407(g) of the proposed numeric water quality
21 standards if other chemical constituents does not
22 include a sulfate standard like the following
23 General Use standard under Section
24 302.207(h) (3) (a), quote, if the hardness
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1 concentration of waters is less than 100 mg/L or
2 chloride concentration of water is less than 5
3 mg/L the sulfate standard is 500 mg/L, should
4 there be?

5 MR. TWAIT: The Agency looked at the
6 hardness data that the district provided and we
7 did not have any hardness values less than 100 so
8 we didn't feel that it was necessary.

9 MS. LIU: Okay. That's perfect.
10 Thank you.

11 MS. TIPSORD: Anything else? Thank
12 you, all, very much and I will talk to you all on
13 October 1st. We are adjourned.

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1 STATE OF ILLINOIS)
2) SS.
3 COUNTY OF COOK)
4

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

13 Witness my official signature in and for
14 Cook County, Illinois, on this 3rd day of
15 October, A.D., 2013.

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