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ILLINOIS POLLUTION CONTROL BOARD

NOVEON, INC., f/k/a BF GOODRICH)
CORPORATION, (Henry Facility),)
Petitioner,)
vs.) PCB 91-17
) (NPDES Permit Appeal)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
Respondent.)

The following is the transcript of a hearing held in the above-entitled matter, taken stenographically by Gale G. Everhart, CSR-RPR, a notary public within and for the County of Peoria and State of Illinois, before Bradley P. Halloran, Hearing Officer, at 122 North Prairie Street, Lacon, Illinois, on the 17th day of February, A.D. 2004, commencing at 9:10 a.m.

1 PRESENT:

2

HEARING TAKEN BEFORE:

3 ILLINOIS POLLUTION CONTROL BOARD
100 West Randolph Street
4 James R. Thompson Center, Suite 11-500
Chicago, Illinois 60601
5 (312) 814-8917
BY: MR. BRADLEY P. HALLORAN, ESQUIRE

6

7 APPEARANCES:

8

GARDNER, CARTON & DOUGLAS

9 BY: RICHARD J. KISSEL, ESQUIRE
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10 SHEILA H. DEELY, ESQUIRE

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On Behalf of the Petitioner.

13

14 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BY: DEBORAH J. WILLIAMS, ESQUIRE

15 Attorney at Law
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16 Springfield, Illinois 62794
(217) 782-5544

17 On Behalf of the Respondent.

18

ALSO PRESENT:

19

Lorraine Robinson

20 David Giffin
Michael R. Corn
21 Alisa Liu
Chen H. Lin

22

Members of the public and press

23

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1	I N D E X	Page
2		
3	GREETING BY HEARING OFFICER.	5
4		
5	OPENING STATEMENTS:	
6	BY MS. WILLIAMS	98
7	WITNESS FOR THE PETITIONER:	
8	T. HOUSTON FLIPPIN, P.E., DEE	
9	Direct Examination by Mr. Kissel	23
10	Cross-Examination by Ms. Williams.	60
	Redirect Examination by Mr. Kissel	97
11	WITNESSES FOR THE RESPONDENT:	
12	ROBERT MOSHER	
13	Direct Examination by Ms. Williams	104
	Cross-Examination by Mr. Kissel.	114
14	RICHARD PINNEO	
15	Direct Examination by Ms. Williams	123
16	Cross-Examination by Mr. Kissel.	144
17	Redirect Examination by Ms. Williams	173
18		
19		
20		
21		
22		
23		
24		

1 HEARING OFFICER EXHIBIT: Page

2 EXHIBIT 1 18

3

4 PETITIONER'S EXHIBITS ADMITTED INTO EVIDENCE:

5 EXHIBIT 16. 20

6 EXHIBIT 17. 25

7 EXHIBIT 18. 35

8 EXHIBIT 19. 55

9 IEPA'S EXHIBITS ADMITTED INTO EVIDENCE:

10 EXHIBIT 3 125

11 EXHIBIT 4 129

12 EXHIBIT 5 131

13 EXHIBIT 6 133

14 All exhibits were retained by Hearing Officer

15 Halloran.

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1 HEARING OFFICER HALLORAN: Good morning, everyone.
2 My name is Bradley Halloran. I'm the hearing officer
3 for the Illinois Pollution Control Board, and I'm also
4 assigned to this matter. It's entitled PCB 91-17,
5 Noveon, Incorporated, formerly known as BF Goodrich
6 Corporation, versus the IEPA NPDES Permit Appeal. It's
7 approximately 9:05, February 17th, in the year 2004.

8 I do want to note for the record I do see, I
9 think, some members of the public here. Are there any
10 members of the public? I see two hands and three, and I
11 think some media is here.

12 With respect to the public, you can, if you
13 wish, give public comment or public statement, and we
14 will try to squeeze you in. If you have to leave right
15 away, let me know. You can step up here and give your
16 comment, but it has to be relevant to the subject. So
17 if you feel you have to leave to go to work or whatever,
18 let me know and I will get you up.

19 But in any event, we are going to run this
20 hearing pursuant to section 105.200, 105.214, subpart B,
21 and section 101, subpart F, under the Board's general
22 provisions. This hearing has also been publicly noticed
23 pursuant to the Board's regs and the Illinois
24 Environmental Protection Act.

1 I note that this hearing is intended to
2 develop a record for review for the Illinois Pollution
3 Control Board. I will not be making the ultimate
4 decision in the case. That decision is left up to the
5 five members of the Pollution Control Board. They will
6 review the record of the transcripts and also the
7 posthearing briefs and render a decision in the matter.
8 My job is to ensure an orderly hearing and a clear
9 record and rule on any evidentiary matters that may
10 arise. Again, after the hearing the parties will have
11 an opportunity to submit briefs, and I will also set a
12 public comment period.

13 I should mention that this hearing originally
14 was held on November 19th, 1991, and it was continued to
15 December 16th, 1991, at which time it was suspended.
16 After reading the record, it looks like the petitioner
17 and IEPA were close to resolve, obviously that hasn't
18 happened. So, therefore, we are reconvening.

19 With that said, would the parties like to
20 introduce themselves? Mr. Kissel and Mr. Latham and
21 Ms. Deely. And then we will go to the IEPA.

22 MR. KISSEL: My name is Richard Kissel with the
23 firm Gardner, Carton & Douglas, and we represent Noveon.
24 To my right is Mr. Mark Latham, who is a partner in the

1 firm. And to my left is Sheila Deely who is also with
2 the firm, and the three of us represent Noveon.

3 HEARING OFFICER LATHAM: Thank you, Mr. Kissel.

4 Ms. Williams.

5 MS. WILLIAMS: Good morning. My name is Debra
6 Williams. I am the assistant counsel with the Illinois
7 EPA. I have with me so far this morning Mr. Rick Pinneo
8 who is an environmental protection engineer and Lorraine
9 Robinson our legal investigator.

10 HEARING OFFICER HALLORAN: Thank you. I do want to
11 note we do have in the audience a personnel from the
12 Illinois Pollution Control Board. She is a technical
13 advisor. Her name is Alisa Liu.

14 With that said, I think we have some
15 preliminary matters, do we not? I think we had a motion
16 to file some written testimony. Would you care to
17 address this, please?

18 MR. KISSEL: Let me just set the stage a little bit
19 since I am one of the few people that was at the hearing
20 ten years ago that is still alive and here. And to make
21 sure the record is clear at this proceeding, the matter
22 was postponed at that time because our technical
23 witness, Dr. James Patterson, now living in Colorado,
24 had a problem, a physical problem with his eyes and

1 could not appear before the Board. So we agreed to
2 postpone the hearing. And then while that was being
3 done, the defense attorney for the Agency and myself and
4 people from the petitioner agreed that perhaps we should
5 do some studying of the issue. And as a result of that
6 then BF Goodrich, now Noveon, filed a petition for
7 variance which allowed us to do a substantial amount of
8 studying over the last ten years and work with the
9 Agency. Unfortunately, that did not end in a resolution
10 of the matter. So in any case we worked with the Agency
11 over that period of time. And as a result of not being
12 able to reach an agreement have come to having this
13 hearing rescheduled and will proceed.

14 We would call, as we were going to do back in
15 November of 1991, a technical witness, a substitute
16 person, Mr. Houston Flippin, F-l-i-p-p-i-n, to provide
17 that testimony.

18 MS. DEELY: The motion that is before you,
19 Mr. Hearing Officer, is simply to substitute Houston's
20 testimony that was filed Friday for the testimony that
21 we filed on Monday which is slightly different, but the
22 final version which through an error was inadvertently
23 filed was inadvertently not filed on Friday.

24 HEARING OFFICER HALLORAN: I will let Ms. Williams

1 address that when the time comes.

2 MS. WILLIAMS: Which motion are we talking about?

3 HEARING OFFICER HALLORAN: A motion to withdraw and
4 substitute the written expert testimony of T. Houston
5 Flippin. I think the first written expert testimony of
6 Mr. Flippin was filed February 6th, and that motion is
7 now on the table, a motion to withdraw and substitute
8 the written testimony. And, Ms. Deely, while you are
9 sitting there, I also have -- I'm a little confused. We
10 have -- you filed on February 6th written testimony of
11 Linda Shaw. Also on February 6th you filed substitute
12 written testimony of Linda Shaw.

13 MS. DEELY: Right. I think your clerk wanted
14 redacted versions since we were claiming trade secrets.

15 HEARING OFFICER HALLORAN: Thank you. Now that
16 that's cleared up, Mr. Kissel, do you have anything
17 further and then I will let Ms. Williams address the
18 motion.

19 MR. KISSEL: I don't think she has an objection.

20 MS. WILLIAMS: Well, I don't have a problem
21 substituting the testimony filed on the 9th with the
22 testimony filed on the 6th, but the testimony did vary
23 quite a bit from the draft to the filing, but we had
24 time to review that. The objection I have is that

1 originally on the 6th, the petitioners indicated that
2 they were filing Mr. Flippin's testimony in both the
3 91-17 permit appeal that we are here to talk about today
4 and AS 02-5, the adjusted standard proceeding that we
5 will take up when we are finished.

6 When the testimony came in on the 9th, the
7 notice of filing was only addressed to the adjusted
8 standard proceeding. Now it appears like, from my
9 discussion with Petitioner, their intent was not to do
10 that. I don't need to get caught up in the formalities
11 of how they did this and didn't do it. But I have
12 expressed to them from the beginning that I feel that
13 quite a bit of this testimony was directed towards the
14 adjusted standard proceeding primarily.

15 The vast majority of the testimony is not
16 relevant to the permit appeal. It discusses issues that
17 are only relevant to the adjusted standard. And, in
18 addition, there are quite a few things that also should
19 be excluded from the permit appeal that are based on
20 data and calculations that were not available at the
21 time. By his own testimony he identifies several
22 calculations based on data from 1999 to 2004, that
23 general era.

24 Now what we have done in order to keep the

1 process going and speed things up, we did take the
2 testimony from December 9th and we have redacted it in a
3 way that we would be willing to accept as prefiled
4 testimony in the permit appeal today. I can show you if
5 it would please you to speed things up that way. There
6 are some other ways I would be happy to handle it, but
7 this is one way to speed things up.

8 HEARING OFFICER HALLORAN: If we did accept this
9 redacted version and we did admit it into the permit
10 appeal, the adjusted standard, the substitution -- it's
11 substituted written expert testimony of Mr. Flippin,
12 what we have filed February 9th will be allowed in --

13 MS. WILLIAMS: Will be allowed in its entirety as
14 it was filed in the adjusted standard.

15 MR. KISSEL: As I understand it, there is no
16 objection to the motion to substitute testimony.

17 HEARING OFFICER HALLORAN: It sounds like there is
18 and there isn't. There is no --

19 MR. KISSEL: It's a pure substitution of it. The
20 relevancy of it is another matter, but the pure
21 substitution of it there is no objection.

22 MS. WILLIAMS: Depending -- I would like to
23 reserve, I guess, for the future if I'm not successful
24 in arguing the relevancy that it technically was only

1 filed in the adjusted standard. Technically, the motion
2 to substitute was filed in the adjusted standard. I
3 mean, I just -- for the record, if there are problems
4 down the road, but, no, I'm not objecting at all to the
5 fact it was late or anything like that. We did have
6 plenty of time to look at it

7 HEARING OFFICER HALLORAN: I would grant
8 Petitioner's motion to withdraw and substitute, but only
9 to the extent that we still haven't ruled on the
10 redacted version of Mr. Flippin's testimony. Per se, I
11 guess the motion is granted, but there are conditions,
12 and we will discuss those now.

13 MR. KISSEL: I think, from what we understand, I
14 haven't had a chance to look at the redacted version. I
15 think one of the major objections that the Agency has
16 with Mr. Flippin's testimony has to do with his
17 testimony concerning the available technology and the
18 treatability of the waste which is in his new -- and it
19 was in the old testimony as well. And I'm not sure what
20 the reason for the objection is, but the fact of the
21 matter is that when this hearing was held in 1991 the
22 reason it was delayed was because we had a very
23 technical witness who would have, at that time,
24 testified to essentially the same thing that Mr. Flippin

1 is going to testify to or is scheduled to testify to in
2 this permit appeal. That witness was unable to make it,
3 unable to appear because of a physical problem. There
4 was no objection by the Agency in having that testimony.
5 And, indeed, Mr. Williams who testified at that
6 proceeding did testify with regard to technology and it
7 was understood by both the Agency and the hearing
8 officer at that time that Dr. Patterson would testify
9 further about the technology involved which is again
10 what Mr. Houston Flippin will testify to.

11 The rules of the Board at the time provided
12 that permit appeals or NPDES permit appeals from permit
13 were de novo proceedings. And that was sustained in
14 three appellate court decisions. So we believe that the
15 technology involved was absolutely totally relevant to
16 the permit appeal so that the Board would understand
17 within the context of that appeal what, if any,
18 technology was available and what it would produce.

19 So I believe that the testimony which has
20 been accepted by the Board should be accepted here. In
21 addition, there is the testimony of Mr. Flippin which
22 will be concerning a term called "population
23 equivalents," which is relevant to determining whether
24 the rule involved in the Agency's permit decision was

1 applicable to the Noveon discharge.

2 So I think that -- it is clear to me that we
3 have waited -- well, it's 13 years, or 12-1/2 and we
4 have heard no objection about that being a part of the
5 matter and now we find that after providing the
6 testimony there is an objection. And, in addition, I
7 think we are perfectly entitled to introduce that
8 evidence based upon the law and the Pollution Control
9 Board rules at the time.

10 HEARING OFFICER HALLORAN: Ms. Williams?

11 MS. WILLIAMS: I really don't agree. Obviously I
12 wasn't at the 1991 hearing unfortunately. But I don't
13 concede at all that the content of Mr. Flippin's
14 testimony is the same testimony that would have been
15 provided in 1991. By his own definition of his
16 testimony when it was originally filed, the first
17 version clearly identified that it was testimony
18 developed just for the adjusted standard proceeding.
19 And it involves investigation of technologies that are
20 alternatives that were investigated purely for the
21 purpose of justifying obtaining relief under the just
22 standard provision of the Board's regulation.

23 Clearly the current regulations provide that
24 today's permit appeal hearing unlike tomorrow when we

1 are talking about the adjusted standard, the record
2 today is to be based exclusively on the evidence that
3 was before the Agency at the time that we made the
4 decision. I think the testimony from the last hearing
5 does demonstrate that the Agency didn't look at anything
6 about alternatives when it decided to write this permit.
7 And the decision to write a permit is based purely on
8 the regulations and the evaluation of the application.
9 The Agency didn't look one way or another at how or if
10 Noveon could comply with those regulations. That
11 testimony is really not relevant to the narrow issue we
12 are looking at today of which provisions of the Board
13 regulations should have been included in this permit and
14 whether they were properly interpreted by the Agency.

15 In addition -- I mean, I don't really dispute
16 Mr. Flippin's desire to present evidence on calculation
17 of the population equivalents. We disagree to the great
18 extent that it's relevant to the actual statutory,
19 regulatory interpretation itself, but they are free to
20 present some of that evidence. My objection is based on
21 the fact that in his testimony the evidence is based on
22 -- the data is not provided, actually, in the testimony
23 where he got it from. But it appears, based on his own
24 citations, to be based on data that was not available at

1 the time. Had he gone back and calculated these numbers
2 based on data from the time the permit decision was
3 made, I would feel differently.

4 HEARING OFFICER HALLORAN: Any response?

5 MR. KISSEL: Yes. I just want to note for the
6 record that there is in the Agency record which is a
7 part of the -- yeah, it's in this proceeding, there is a
8 memo dated 8/16/1990 by Mr. Pinneo in which he
9 outlines -- it's page 35 of the record which he
10 discusses all of the technology that Mr. Flippin is
11 going to testify to. So it seems to me that's already
12 in the record. So we are entitled to respond to what's
13 there. In addition, we have sort of a double standard
14 on behalf of the Agency. The Agency says we can't do
15 anything that happened after 1991 and no testimony is
16 allowed to that.

17 On the other hand we want to apply the rules
18 that apply today even though they have changed in
19 allowing the testimony. So I think that the best thing
20 to do, and my suggestion to the Board, to the Hearing
21 Officer, is the best thing to do is let the testimony
22 proceed and then the Agency can, afterwards or during
23 the testimony, object and that will be noted for the
24 Board. Rather than deprive the public of the testimony

1 in this proceeding, it is best in my view to have cases
2 where there is a legitimate -- potentially a legitimate
3 dispute -- I don't necessarily agree with the Agency's
4 position -- is to admit the testimony subject to the
5 objection of the Agency and let the Board decide whether
6 it's relevant and what is allowable.

7 HEARING OFFICER HALLORAN: My big problem I have
8 and, again, I have talked to both parties in telephone
9 status conferences, this hearing has been set for three
10 months. And all of a sudden, again, eleventh hour,
11 tenth hour, whatever the case, there is written
12 testimony that's objected to. And, I mean, we could
13 have solved all this in 30 minutes over the phone in the
14 last couple of weeks. I mean, I don't know. And that's
15 an aside, but I don't think it's the Board's duty to
16 filter out what's relevant or not relevant.

17 My suggestion is -- and it's not my ruling
18 yet -- is to take the written testimony by Mr. Flippin
19 as an offer of proof in the permit appeal, and they will
20 decide at that time. But to let it in right now and to
21 piecemeal out relevant or irrelevant stuff. And I'm
22 going from the February 17th, 2004, rules where the
23 evidence to be considered relevant was based exclusively
24 in the record for the Agency at the time. And it sounds

1 like there is studies from 1999 in there. You know,
2 where that might have been fine in '91, the Board can
3 rule whether or not they will take notice of the 1991
4 regs when they decide the case. But I think right now I
5 think I'm going with the February 17th, 2004, rules,
6 under permit appeals, and deny the written testimony.
7 But I will take it with the case as an offer of proof.

8 MR. KISSEL: How do you want to handle the -- we
9 disagree with that, but we will -- how do you want to
10 handle the offer of proof? Do you want him to actually
11 read it into the record?

12 HEARING OFFICER HALLORAN: I will take it with the
13 case. We can mark it. I'll tell you what I'll do, I
14 will mark it as Hearing Officer Exhibit 1 -- that might
15 separate it from the other ones -- with Mr. Flippin's
16 written testimony regarding the permit appeal. My
17 understanding is the IEPA has no objection to the
18 written testimony coming in for the adjusted standard
19 proceeding?

20 MS. WILLIAMS: Correct. I think I have been
21 encouraging, probably for several months, since the
22 issue of first having prefiled testimony was raised,
23 that I didn't necessarily think it was appropriate to do
24 it in the permit appeal. But I would be very happy to

1 have Mr. Flippin just get up on the stand and provide
2 his testimony here for everybody today. I doubt that in
3 that type of format there would be a whole lot that I
4 could object to. I think we could get through it
5 relatively quickly and handle it that way as well rather
6 than the petitioners have to be concerned what the Board
7 will ultimately rule.

8 HEARING OFFICER HALLORAN: Okay. With that, what
9 I'm going to do right now is mark the written testimony
10 of Mr. Flippin as Hearing Officer Exhibit Number 1, and
11 I will take it with the case as an offer of proof. When
12 we reach the adjusted standard proceeding, we will
13 address it again.

14 MR. KISSEL: Mr. Hearing Officer, since there
15 is -- I have not read it, but the redacted testimony
16 that the Agency has provided, since they are in
17 agreement that that can be introduced into the permit
18 appeal record, I would like to suggest that without
19 their -- with their approval that that be admitted as an
20 exhibit.

21 HEARING OFFICER HALLORAN: Ms. Williams?

22 MS. WILLIAMS: That's fine. We have several copies
23 that we brought with us.

24 HEARING OFFICER HALLORAN: You gave me a copy.

1 MS. WILLIAMS: I gave them two. I probably have --
2 I would like to keep one for myself. I don't have
3 enough for everybody, but we have like five more, maybe.

4 HEARING OFFICER HALLORAN: Mr. Kissel, do you want
5 me to mark it as Petitioner's Exhibit Number 1, or do
6 you have it premarked?

7 MR. KISSEL: We have exhibits that are already -- I
8 forget where we were in the exhibit chain.

9 MS. WILLIAMS: 15, I think.

10 MR. KISSEL: Yeah, it would be Petitioner's Exhibit
11 Number 16.

12 HEARING OFFICER HALLORAN: Okay.

13 MR. KISSEL: I would suggest since we have members
14 of the public here rather than just introduce it as an
15 exhibit -- it could be done that way, of course, but
16 also to have Mr. Flippin testify.

17 HEARING OFFICER HALLORAN: That would be fine.

18 MR. LATHAM: Can we have a few minutes to go
19 through this with our witness?

20 HEARING OFFICER HALLORAN: Can I clear up this
21 other written testimony?

22 MS. DEELY: Sure.

23 HEARING OFFICER HALLORAN: I want to see if
24 Ms. Williams has an objection. If you just wait a

1 minute.

2 (Pause in proceedings.)

3 HEARING OFFICER HALLORAN: We have written
4 testimony filed by the petitioner -- and correct me if
5 I'm wrong, please, David Giffin?

6 MS. DEELY: That's correct.

7 MR. LATHAM: That's right.

8 MS. DEELY: That will be for the adjusted standard.

9 HEARING OFFICER HALLORAN: Okay. I'm sorry. All
10 the rest of it is adjusted standard, excuse me. My
11 fault.

12 MR. KISSEL: As a matter for the record,
13 Mr. Hearing Officer, I want to at least comment without
14 incurring your wrath on the question of the statements.
15 I mean, I think that the Board's rules provided for what
16 we did. It provides for us filing the testimony, I
17 think, within 14 days prior to the day of the hearing.
18 So there was -- I just want to make sure that the Board
19 understands and the members of the public that are here
20 that the providing of doing this in narrative form was
21 an attempt to comply with the rules of the Board not to
22 go around the rules.

23 HEARING OFFICER HALLORAN: Well, I understand. And
24 I take a bit of leverage; I'm not throwing wrath your

1 way. Again, this hearing has been noticed up for three
2 months. Both parties seemed to be getting along, moving
3 along smoothly. I do remember Ms. Williams having some
4 kind of concerns regarding the possibly filed written
5 testimony. The first testimony, some of it was filed
6 February 6th, some of it was filed February 9th. And
7 I'm not sure if the Board's rules required 14 days, but
8 that's less than 14 days. It's only February 17th. We
9 have had two state holidays in between. I have been on
10 the road at other hearings. And with that said, your
11 comments are so noted and by no means did I want to
12 throw wrath Noveon's way.

13 MR. KISSEL: I just want to make sure we are trying
14 to do something to make this an orderly proceeding and
15 not the other way around. And the Hearing Officer will
16 note that in the original hearing all the questioning
17 was done voir dire by the petitioner.

18 HEARING OFFICER HALLORAN: I don't know if I said
19 30 days. It was three months. I think back in November
20 it was noticed up. So everybody had notice it was going
21 to be set for today. And then the written testimony and
22 motions start coming in February 6th, February 9th.

23 (Whereupon, a recess was taken.)

24 HEARING OFFICER HALLORAN: All right. We are back

1 on the record; and to pick up where we are left off, I
2 do appreciate Noveon's attempting to streamline this
3 hearing. I'm sure the Board appreciates it. More
4 specifically I appreciate it. But in any event, I think
5 back in 1991 Noveon was continuing with its case in
6 chief, and I think here we are and we have Mr. Flippin
7 on the stand. And do you care to raise your right hand?

8 (Witness sworn.)

9 MR. KISSEL: Before Mr. Flippin testifies, let me
10 make it clear for the record that Hearing Officer
11 Exhibit Number 1 which is the complete, unedited,
12 unredacted testimony of Mr. Flippin is being offered and
13 has been accepted by the Hearing Officer as an offer of
14 proof, meaning that if Mr. Flippin had been called to
15 testify and allowed to testify, he would have testified
16 to what is contained in Hearing Officer Exhibit
17 Number 1. Is that correct, Mr. Flippin?

18 THE WITNESS: It is.

19 HEARING OFFICER HALLORAN: Thank you, Mr. Kissel.

20 T. HOUSTON FLIPPIN, P.E., DEE,
21 called as a witness, after being first duly sworn, was
22 examined and testified upon his oath as follows:

23 DIRECT EXAMINATION

24 BY MR. KISSEL:

1 Q Would you identify yourself, please?

2 A Yes. My name is Thomas Houston Flippin.

3 Q You have a statement that you have prepared?

4 A I have.

5 Q Did you prepare that statement?

6 A I did.

7 Q Has it been changed in any way?

8 A Not significantly. And where it has, I will
9 note as I go through this.

10 Q Would you proceed?

11 A I will be glad to. My name is Thomas Houston
12 Flippin. I was retained by Noveon, Inc., in September
13 of 1988. That is a correction. I had listed December
14 of 1989 prior, and that's when I became project manager
15 over this work, to provide wastewater treatment
16 consulting services and have continued in that capacity
17 for the last 15 years.

18 During this entire period, I served as lead
19 process engineer on all Noveon-Henry plant matters in
20 which my firm Brown and Caldwell has been involved. My
21 firm was previously known as Eckenfelder, Inc., and was
22 acquired by Brown and Caldwell in 1998.

23 I received two degrees from Vanderbilt
24 University. I received my bachelor of engineering

1 degree in Civil and Environmental Engineering in 1982,
2 and my Master of Science degree in Environmental and
3 Water Resources Engineering in 1984.

4 I immediately went to work for AWARE,
5 Incorporated, in 1984, and have remained with the same
6 company for the last 20 years in progressively more
7 responsible positions. From project engineer to project
8 manager to principal engineer in the area of wastewater
9 engineering. I believe my resume is available as an
10 exhibit.

11 Q Yes. Mr. Flippin, I show you what has been
12 marked as Petitioner's Exhibit Number 17; is that
13 correct? Is that where we are?

14 HEARING OFFICER HALLORAN: Yes, sir.

15 Q Would you identify that, please?

16 A This is my resume which I have prepared.

17 Q You prepared that?

18 A I did.

19 Q And for purposes of this hearing, is it true
20 and correct?

21 A It is.

22 MR. KISSEL: I move the admission of Petitioner's
23 Exhibit Number 17.

24 MS. WILLIAMS: I have no objection.

1 HEARING OFFICER HALLORAN: Petitioner's Exhibit
2 Number 17 is admitted into evidence.

3 Q Go ahead. Continue.

4 HEARING OFFICER HALLORAN: I'm sorry, Mr. Kissel,
5 is Mr. Flippin going to read the whole written
6 testimony?

7 MR. KISSEL: Pardon?

8 HEARING OFFICER HALLORAN: Is Mr. Flippin going to
9 read --

10 MR. KISSEL: He is reading the redacted testimony,
11 yes.

12 HEARING OFFICER HALLORAN: I thought the purpose of
13 this was to streamline it, but go ahead, Mr. Flippin.
14 I'm sorry.

15 MR. KISSEL: I misunderstood. The reason for doing
16 it -- we are more than willing to do that, except my
17 thought was since there are members of the public and
18 the press here they would want to hear the testimony
19 rather than just enter it into the record.

20 HEARING OFFICER HALLORAN: Okay. I understand.

21 MR. KISSEL: We will do it either way, but I don't
22 want it to look like we are holding something back.

23 HEARING OFFICER HALLORAN: I agree. I'm sorry,
24 Mr. Flippin; you may continue.

1 A My firm has changed names twice. In 1989 we
2 renamed ourselves Eckenfelder, Incorporated, to honor
3 Wes Eckenfelder, our chairman emeritus, who is still
4 with us today. Much of what I have learned has been
5 under Dr. Eckenfelder as a graduate student and as a
6 coworker.

7 During my career I have personally conducted
8 treatment, treatability, testing of industrial
9 wastewaters and contaminated ground waters and developed
10 treatment process design criteria from test data. I
11 have provided troubleshooting or optimization services
12 for wastewater treatment facilities and conducted waste
13 minimization studies. I have also overseen the work
14 described above, designed wastewater and contaminated
15 groundwater treatment processes, assisted in effluent
16 permit negotiations, supported expert testimony
17 preparation and trained treatment plant operators. I
18 currently serve as lead process engineer on more
19 technically challenging projects, and I also trained
20 engineers within the firm. I am a licensed professional
21 engineer in the states of Illinois, Michigan, Kentucky
22 and Tennessee. I'm also certified as a diplomat in the
23 American Academy of Environmental Engineers in the
24 specialty area of water supply and wastewater. This

1 certification is held by less than 1,300 people in the
2 United States and requires stringent peer review and
3 testing to acquire.

4 I have published 16 technical papers of which
5 7 are directly related to the Noveon-Henry plant's
6 issues and have provided material for one textbook, that
7 is, Activated Sludge Treatment of Industrial
8 Wastewaters, with the editors being John L. Musterman
9 and W. Wesley Eckenfelder, Technomic Publishing Company,
10 1995. I have also provided the technical review of a
11 chapter from another textbook, Granular Carbon
12 Adsorption of Toxics from Toxicity Reduction in
13 Industrial Effluents, again, the editors being Perry W.
14 Lankford and W. Wesley Eckenfelder, Van Nostrand
15 Reinhold, 1992.

16 I have served as an instructor in numerous
17 workshops including the following: Clarifier Operation
18 in Maintenance sponsored by Mississippi Water Pollution
19 Control Operators Association in 1997; Aerobic
20 Biological Treatment, sponsored by Tennessee State
21 University in 1997, 1998 and 1999; Activated Sludge
22 Treatment, sponsored by Brown and Caldwell and attended
23 by more than ten industries during each offering in
24 November of 1999, March of 2000, May of 2001, November

1 of 2002 and November of 2003; and, also, Wastewater
2 Strategies for Industrial Compliance, Gulf Coast Issues
3 and Solutions, sponsored by Tulane University and
4 Louisiana Chemical Association in December of 2003.

5 Specifically, for design experience related
6 to this matter, I have developed a process designed for
7 the biological nitrification facilities for facilities
8 that are fully operational today and meeting permit
9 compliance. Those have been for Ciba Specialties in
10 McIntosh, Alabama; the city of Springfield,
11 Massachusetts; the city of Forest, Missouri, which I
12 should note has a large poultry plant discharge
13 component; Globe Manufacturing Company in Gastonia,
14 North Carolina.

15 I have provided optimization assistance for
16 the following biological nitrification facilities. Each
17 of these are fully operational today and meeting permit
18 compliance, American Proteins in Cummings, Georgia,
19 International Specialty Products in Calvert City,
20 Kentucky; the City of Murray, Kentucky; Noveon-Gastonia
21 in North Carolina.

22 I have developed process design for the
23 following biological nitrification and denitrification
24 facilities. One of these, Lower Bucks County, was never

1 built due to a lack of funding. The Chesterfield County
2 facility is fully operational, meeting effluent limits.
3 The Puerto Rico facility is under construction and will
4 begin operation later this year. These three facilities
5 have been Rohm and Haas combined with Lower Bucks
6 County, Bristol, Pennsylvania; Chesterfield County,
7 Virginia; Eli Lilly in Puerto Rico.

8 Lastly, I developed the process design for
9 the breakpoint chlorination facility for Allied Waste
10 Landfill in Murfreesboro, Tennessee. This facility
11 required small enough quantities of chlorine that a much
12 safer chlorine source could be used, liquid sodium
13 hypochlorite. This facility also discharged to publicly
14 owned treatment works and not a receiving water body. I
15 will present the evaluation that led to the design of
16 this breakpoint chlorination facility at the Tennessee
17 Solid Waste and Hazardous Waste Conference in
18 Gatlinburg, Tennessee, in April of 2004. Several other
19 technologies were considered for design development.
20 These were struvite precipitation, ion exchange,
21 selective membrane treatment, alkaline air stripping,
22 and biological nitrification. Bio-inhibition was the
23 reason that biological nitrification was not selected
24 for treatment to remove ammonia-nitrogen from this

1 leachate.

2 HEARING OFFICER HALLORAN: Gale, I will give you a
3 copy. He is speaking a little fast.

4 COURT REPORTER: Thanks.

5 HEARING OFFICER HALLORAN: Sorry to interrupt. You
6 may proceed.

7 A As far as my Noveon-Henry plant
8 experience -- and I will speak slower -- in 1989 -- '88,
9 actually, to 2004, I have provided the following
10 assistance in chronological order listed below. I have
11 also spent a cumulative of at least two months on site
12 at this facility throughout the years with no more than
13 two years elapsing between visits. My last visit to the
14 plant was in the fall of 2003.

15 In my services I provided at the facility,
16 they have consisted of optimization of wastewater
17 treatment facility operations, setup, conduct and
18 oversight of treatability testing that was used to
19 develop process design of the C-18 wastewater
20 pretreatment system and aeration basin upgrade. Testing
21 was also used to set allowable loading rates of various
22 waste streams. I have trained wastewater treatment
23 facility operators in process optimization and
24 analytical testing. I have set up and conducted and

1 overseen treatability testing that was used to develop
2 conceptual level design criteria for alternative
3 processes for effluent ammonia-nitrogen reduction. I
4 have developed conceptual level designs for these
5 alternative processes, and I have worked with
6 construction cost estimators and vendors to develop
7 conceptual level cost estimates of these alternative
8 processes.

9 I provided, as requested, guidance to Noveon
10 regarding wastewater treatment facility operations and
11 full-scale testing of processes and procedures intended
12 to reduce effluent ammonia-nitrogen. I have authored
13 and reviewed reports submitted to Noveon by Brown and
14 Caldwell, formerly AWARE, Incorporated, and Eckenfelder,
15 Incorporated, during the entire period of 1988 through
16 2004. I have represented Noveon in discussions with
17 IEPA regarding the petition for adjusted standard.

18 Many of the terms I have used and will use
19 throughout the remaining testimony are defined below for
20 the Noveon wastewater treatment facility. And
21 understanding of the wastewater treatment facility is
22 critical to understanding the evaluations conducted and
23 the conclusions reached.

24 Q Mr. Flippin, I'm going to show you what we

1 have marked as Petitioner's Exhibit Number 18. Would
2 you tell me what that is, please?

3 A This is Figure 1, a block flow diagram of
4 waste stream sources and the wastewater treatment
5 facility at the Noveon-Henry plant that I did prepare
6 and review.

7 Q Is that a true and accurate representation of
8 the treatment facility at Noveon?

9 A Yes, it is.

10 Q And is that Petitioner's Exhibit Number 18,
11 the Figure 1 that appears in your testimony?

12 A It is.

13 MR. KISSEL: Thank you. I move the admission of
14 Petitioner's Exhibit Number 18.

15 MS. WILLIAMS: I don't necessarily have an
16 objection, but I guess I would like to get on the record
17 whether this is a representation of the plant at the
18 time the permit was issued as well.

19 HEAR OFFICER HALLORAN: Mr. Flippin? Mr. Kissel,
20 would you care to ask your witness, if possible?

21 MR. KISSEL: It's her objection. I don't know what
22 the --

23 MS. WILLIAMS: You asked if it was a true and
24 accurate representation of the plant. I would like to

1 clarify whether it was a true and accurate
2 representation of the plant in 1989, 1990.

3 THE WITNESS: I will defer to Dave Giffin who can
4 speak more accurately to that.

5 MS. WILLIAMS: I don't mean to be a troublemaker, I
6 guess, but technically, it is sort of an issue to allow
7 the exhibit if it's not explaining what the plant looked
8 like at the time.

9 Q Are there major differences in the facility
10 now?

11 A None which I'm aware of.

12 MR. KISSEL: Thank you. I still move the admission
13 of Petitioner's Exhibit Number 18.

14 HEARING OFFICER HALLORAN: Ms. Williams?

15 MS. WILLIAMS: Just with the clarification we are
16 not sure exactly what it looked like at that time, but I
17 don't really object to having it in there. I think
18 there are other things in the record that do clarify
19 what the plant looked like at that time.

20 MR. KISSEL: With all due respect, there is an
21 objection on the record, I think we ought --

22 HEARING OFFICER HALLORAN: Well, she does have an
23 objection and the question has not been answered yet
24 whether this is a 2004 diagram or a 1990 diagram.

1 MR. KISSEL: He said there wasn't any major
2 changes. Are you going to deny the admission of that
3 into the record?

4 HEARING OFFICER HALLORAN: Well, sir, you can read
5 section 104214. I didn't make my ruling yet so I would
6 appreciate you not second guessing me. But I can only
7 allow the relevant stuff that was before the Agency at
8 the time it issued the permit or denied the permit or
9 whatever. I think that was 1990. It is kind of an
10 anomaly, this is the year 2004; but with that said, and
11 based on the representations of Mr. Flippin, I think
12 it's more cumulative. If anything, I will admit it over
13 Ms. Williams' objection.

14 MR. KISSEL: Thank you.

15 HEARING OFFICER HALLORAN: Thank you.

16 Q Please continue.

17 A In explaining the Noveon-Henry plant there
18 are several things that are pertinent to understand.
19 And let's start at the beginning and I will briefly
20 explain this. If you will, there are two production
21 areas that discharged to the Noveon-Henry wastewater
22 treatment facility. They are those areas associated
23 with Polymer Chemicals which is the Noveon side, and
24 then there are areas that are associated with resin

1 manufacturing which is the Geon, now called PolyOne,
2 side. Those wastewaters that are generated from the
3 Noveon production area can go to either one of two
4 places. They can either go to a C-18 tank which
5 contains C-18 production area wastewaters or they can go
6 to a PC tank which stands for Polymer Chemicals tank
7 that receives the bulk of the Noveon wastewater. On the
8 Geon, now PolyOne, side, the wastewater can either
9 discharge through the wastewaters from 213 manufacturing
10 discharge through a pretreatment system and then
11 discharge to what is called the PVC tank, or those
12 wastewaters not requiring pretreatment can discharge
13 directly to the PVC tank. Next, wastewaters from
14 utilities, i.e., boiler blow down, cooling tower blow
15 down, demineralization, water blow down, each of those
16 are directed to a pond that contains also storm water
17 runoff. Those pond waters can either be directed to the
18 head works of the wastewater treatment facility or can
19 be filtered and combined for discharge through the
20 outfall. Lastly, there are wells that discharge -- a
21 well that discharges to the Noveon-Henry plant.
22 Historically, it's been well number 3 and in latter
23 years it's been well number 2.

24 All of these waters, if you noticed, that I

1 have talked about, excluding the well water, go to some
2 form of holding tank or holding basin. What also goes
3 to the PVC tank, if you will, besides wastewater,
4 untreated wastewater or pretreated wastewater, is
5 backwash waters from the tertiary sand filter for the
6 entire treatment facility. What also goes there is
7 filtrate from sludge dewatering. And what can go there
8 is if the dewatering operations are shut down and
9 primary sludge is still being withdrawn from the primary
10 clarifier, it can be directed to the PVC tank.
11 Consequently, the discharge from the PVC tank not only
12 contains wastewater and pretreated wastewater, but it
13 also contains return streams that contain, particularly,
14 suspended solids and other materials as well. All of
15 those wastewaters from the well, from the pond and from
16 C-18, from the PC tank and PVC tank all go through -- as
17 they start into the wastewater treatment facility, they
18 all go through pH adjustment. They go through
19 coagulation where a chemical is added to aid in solid
20 separation. They then go through a primary clarifier.
21 At this point this treatment is called primary
22 treatment. And after primary treatment the wastewaters
23 discharge from the primary clarifier and go into
24 aeration tanks where bacteria roam to grade both organic

1 compounds and organic nitrogen compounds. Those
2 waste -- after the aeration basin, the bacteria exit the
3 aeration basins and go to secondary clarifiers where
4 they settle to the bottom. And the bacteria that settle
5 to the bottom of the secondary clarifier are returned to
6 the aeration basins and are called return activated
7 sludge. The bacteria that do not get returned to the
8 aeration basins are wasted to the sludge dewatering
9 operations. And, therefore, they are called waste
10 activated sludge. And what determines how much waste
11 activated sludge you have determines what age would you
12 like to maintain the bacteria in the aeration tanks or
13 what sludge age or mean cell residence time would you
14 like for them to have.

15 Following -- now aeration tanks in the
16 secondary clarifier compose what's called secondary
17 treatment or biological treatment or activated sludge
18 treatment. After the secondary clarifier, the
19 wastewater, passes through a tertiary filter to remove
20 additional solids, and that is called tertiary
21 treatment. After tertiary treatment the water is
22 discharged to the Illinois River, and it combines, prior
23 to that discharge, with wastewaters from the pond that
24 were not directed through the wastewater treatment plant

1 but instead were directed through a filter and then
2 combined with the effluent prior to discharge going
3 through a filter to remove suspended solids primarily.
4 So that's the overview of Figure 1. And --

5 Q Mr. Flippin, when you refer to Figure 1,
6 would you refer to it as Petitioner's Exhibit 18?

7 A Yes. Forgive me. Petitioner's Exhibit 18.
8 I have gone through the narrative to kind of better
9 explain Figure 1 -- or Exhibit 18, Petitioner's Exhibit
10 18.

11 The wastewater treatment facility at the
12 Henry site is owned and operated by Noveon, Inc. This
13 facility treats wastewater discharge from two
14 manufacturing areas, resins and specialty chemicals that
15 were once owned by BF Goodrich. BF Goodrich sold the
16 resin business to the Geon Company who later sold it to
17 the PolyOne Corporation. BF Goodrich sold the specialty
18 chemicals business and the site's wastewater treatment
19 to Noveon, Inc. The wastewaters discharged by Noveon
20 comprise about 35 percent of the total dry weather flow
21 to the wastewater treatment facility while the remaining
22 60 percent is discharged from the PolyOne production
23 areas.

24 Wastewaters from the Noveon-Henry plant

1 production areas discharge to one of two places as
2 illustrated in the exhibit we just discussed. All
3 wastewaters, excluding those from C-18 manufacturing,
4 discharge directly to an equalization tank, the PC tank.
5 The wastewaters from the C-18 manufacturing area
6 discharge to a pretreatment system and are then pumped
7 to an equalization tank. Prior work that I either
8 conducted or oversaw defined the pretreatment of the
9 C-18 wastewater was required for the wastewater
10 treatment facility to treat these wastewaters while
11 complying with effluent BOD limits. Prior to installing
12 pretreatment, the bulk of the C-18 wastewaters were
13 collected and transported off-site for treatment and
14 disposal. After this pretreatment was installed, the
15 pretreatment allowed the Noveon-Henry plant to treat all
16 C-18 wastewaters on-site while maintaining compliance
17 with effluent BOD limits, compliance with these limits.
18 This pretreatment was not required of the other Noveon
19 wastewaters. This pretreatment also had no effect on
20 effluent ammonia-nitrogen concentrations, nor would it
21 have any such effect if applied to any other Noveon
22 wastewater.

23 Wastewaters from the Noveon -- from the
24 PolyOne plant production areas discharge to one of two

1 places. All wastewaters, excluding those from 213
2 manufacturing, discharge directly to the equalization
3 tank called the PVC tank. The wastewaters from 213
4 manufacturing discharge to a pretreatment system and
5 then are pumped to the equalization tank, the PVC tank.
6 This pretreatment was not required of the other PolyOne
7 wastewaters. This pretreatment also had no effect on
8 effluent ammonia-nitrogen concentrations, nor would it
9 have any such effect if applied to any other PolyOne
10 wastewater.

11 Storm water from both the Noveon and PolyOne
12 sites discharge, and discharges from cooling towers,
13 boilers and river water treatment, primarily
14 demineralization, are discharged to the storm utility
15 pond, hence, called the pond as illustrated in the
16 exhibit we previously discussed.

17 A portion of the pond contents are pumped
18 through a filter to remove TSS prior to discharge to the
19 Illinois River. The remaining portion is pumped to the
20 PVC tank or to the primary treatment system. In recent
21 years that's been directly to the primary treatment
22 system. The amount of pond water return is a function
23 of the capacity of the filter treating the pond water
24 and the need for other wastewater to compliment the

1 required PC tank discharge flow rate.

2 The PVC tank has a minimum allowable
3 operating level, below which the tank mixer shuts off.
4 And there is the ability to add pond water to the PVC
5 tank if needed. Work that I have conducted and overseen
6 has indicated that PC tank discharge must be limited to
7 approximately 23 percent of the combined influent flow
8 to the aeration basins to maintain compliance with
9 effluent BOD limits. The PC tank discharge contains
10 compound that can inhibit or slow down the bacteria
11 responsible for BOD removal if their concentrations are
12 allowed to exceed certain critical concentrations. So
13 the amount of pond water diverted to the primary
14 treatment system and, if needed, the PVC tank for
15 subsequent treatment increases during wet weather when
16 the capacity of the filter on the pond discharge is
17 approached, when the PVC tank level nears its minimum
18 operating level and when the flow contribution of the PC
19 tank discharge approaches 23 percent. The contents of
20 the PVC tank, PC tank and C-18 tank are pumped to a pH
21 adjustment tank along with groundwater from a well, well
22 number 3 historically and well number 2 in more recent
23 years. The pH of the combined wastewater is adjusted.
24 Coagulant and polymer are added to the combined

1 wastewater to assist in removing solids from the
2 combined wastewater in the sedimentation basin, also
3 known as the primary clarifier. The solids settle for
4 approximately one hour in the primary clarifier. The
5 settled solids then combine with solids from the bottom
6 of the second sedimentation basin, also known as the
7 secondary clarifier, and are dewatered using a filter
8 press. The dewatered solids are disposed in a permitted
9 off-site landfill. The filtrate from sludge dewatering
10 is returned to the PVC tank for reprocessing through the
11 wastewater treatment facility. When the filter press is
12 not operating, the sludge from the primary clarifier
13 underflow is pumped back to the PVC tank for
14 reprocessing in the wastewater treatment facility and
15 sludge discharge from the secondary clarifier is ceased.

16 The effluent from the primary clarifier is
17 pumped to four aeration basins today of 2 million
18 gallons combined volume that operate in parallel. These
19 basins are aerated to mix the tank contents and to
20 maintain a minimum operating dissolved oxygen
21 concentration of one and a half milligrams per liter,
22 typically greater than three milligrams per liter.
23 Sludge is returned from the bottom of the secondary
24 clarifier to keep these tanks supplied with an

1 acclimated culture of bacteria. pH is controlled as
2 needed to maintain an optimum range for bacterial
3 growth, pH 6-1/2 to pH 8-1/2. The bacteria grown in
4 this tank remove organic compounds with the aid of
5 dissolved oxygen, ammonia-nitrogen and phosphorus. In
6 the process of this removal these bacteria also break
7 away ammonia-nitrogen from organic compounds containing
8 amines, also known as organic nitrogen compounds. Both
9 biological treatment steps I will describe shortly.
10 Dissolved oxygen needed for biodegradation is provided
11 by the aeration equipment. The two predominant
12 nutrients required for biological degradation are
13 ammonia-nitrogen and phosphorus. Ammonia-nitrogen is
14 present in the wastewater and is formed through
15 degradation of organic-nitrogen compounds such as
16 amines, morpholine, and mercaptobenziothiazole.
17 Phosphorus is also added to the return activated sludge
18 going back to the aeration tanks. Now for biological
19 treatment reactions, organic compounds measured as BOD,
20 that is, biochemical oxygen demand, plus
21 ammonia-nitrogen, plus phosphorus, plus dissolved
22 oxygen, plus bacteria, yield more bacteria due to
23 reproduction and growth, plus carbon dioxide, plus
24 water. That's the chemical or that's the biological

1 treatment reaction for BOD removal.

2 Now what happens to organic nitrogen?

3 Organic-nitrogen in an organic compound with essentially
4 ammonia-nitrogen attached, plus phosphorus, plus
5 dissolved oxygen, plus bacteria, yields an organic
6 compound, plus ammonia-nitrogen. The organic compound
7 then degrades just like I described the degradation
8 above using some of the ammonia-nitrogen generated. The
9 bacteria stay in the aeration tanks approximately 2-1/2
10 days where they degrade organic compounds and organic
11 nitrogen. Then they are discharged through a line where
12 they get conditioned with polymer to help them settle
13 better in the secondary clarifier. They settle
14 approximately three hours in the secondary clarifier.
15 They are removed continuously off the bottom of the
16 clarifier and sent back to aeration tanks to degrade
17 more organic compounds and organic nitrogen compounds.
18 A portion of the bacteria is removed from the system,
19 and it's called sludge wasting to control population
20 growth and keep the average age of the bacteria, the
21 mean cell residence time and the food to mass, i.e., the
22 F/M ratio in an optimal range. The bacteria removed
23 from the system are discharged to the filter press for
24 sludge dewatering and, again, subsequent off-site

1 disposal in a landfill. The treatment that I have just
2 described includes pretreatment; primary treatment, that
3 is, pH adjustment, coagulation and primary
4 clarification; and secondary treatment, that is,
5 aeration and secondary clarification with sludge return.

6 This treatment is defined by the U.S. EPA as
7 the best available technology economically available for
8 the organic chemicals, plastics and synthetic fibers
9 industrial category. The citation for that is the Code
10 of Federal Regulations, Title 40, part 414.83, subpart
11 H. This industrial category includes Noveon and
12 PolyOne. However, Noveon treats the wastewater even
13 further by discharging the effluent from the secondary
14 clarifier to a filter to remove additional solids. This
15 additional treatment process is termed "tertiary
16 treatment." Noveon also filters the water coming out of
17 the pond to remove solids. These two filtered
18 wastewater streams combine and discharge through the
19 effluent compliance point that Noveon monitors for flow
20 and regulated compounds such as specific organics, BOD
21 and total suspended solids. The design and operation of
22 the Noveon's wastewater treatment facility are
23 compatible with conditions defined by 35 Illinois
24 Administrative Code 370.920, 35 Illinois Administrative

1 Code 370.1210, and ten state standards to grow
2 nitrifying or ammonia-degrading bacteria as illustrated
3 in a figure that I had contained in the original
4 testimony. However, these bacteria --

5 Q Mr. Flippin, that is Petitioner's Exhibit 18?

6 MS. WILLIAMS: I'm not sure what that is.

7 A That's the original written testimony.

8 MS. DEELY: It's table 1 which is on the next page.

9 A However, these bacteria do not grow in
10 Noveon's wastewater treatment facility. The Illinois
11 regulations cited and the ten state standards are design
12 and operating standards that are intended to promote
13 complete nitrification in municipal wastewater treatment
14 facilities. These standards are intentionally
15 excessive, or conservative, and allow for a significant
16 margin of error in waste load determinations and
17 operating conditions based on my experience. These
18 regulations and standards are principally used by
19 regulators to critique wastewater treatment facility
20 designs to ensure they provide adequate facilities to
21 support complete nitrification. There are no Illinois
22 or ten state standards for single stage nitrification of
23 industrial wastewater treatment facilities since the
24 nature of these wastewaters varies from industry to

1 industry. These industrial standards are developed on a
2 site-specific basis using wastewater characterization
3 data, treatability testing and professional experience.

4 It should be noted, though, that the
5 Noveon-Henry plant does provide the equipment and
6 treatment conditions necessary to achieve and maintain
7 biological nitrification. Its lack of nitrification is
8 not due to a lack of equipment or unfavorable treatment
9 conditions, but due to the presence of bio-inhibiting
10 compounds.

11 Nitrification or ammonia degrading bacteria
12 are much more sensitive than the bacteria that degrade
13 organic compounds and organic nitrogen compounds. The
14 reason these bacteria will not grow is because there are
15 compounds present in the Noveon wastewater that
16 prohibit, prevent or inhibit their growth. If the
17 removal -- if these bacteria were not inhibited and
18 could grow in the aeration tanks, they would provide
19 ammonia removal in the same tankage as the other
20 bacteria used to provide organics removal.
21 Consequently, the treatment would be termed
22 "single-stage nitrification" since in the same existing
23 tankage in the same stage both organics removal and
24 ammonia removal would occur.

1 If you were to grow these ammonia degrading
2 bacteria in a system downstream of the secondary
3 clarifier, it would be called tertiary nitrification.
4 These nitrifying bacteria grow in the same manner as
5 described above.

6 Now for biological treatment reaction for
7 nitrification which is a word you will hear me use later
8 on today, ammonia-nitrogen, plus phosphorus, plus
9 dissolved oxygen, plus alkalinity, plus bacteria yield
10 more bacteria due to reproduction growth plus nitrate
11 nitrogen. I had presented a table 1 in my prior written
12 testimony that made a comparison, but I will not make
13 that comparison.

14 The next -- the whole applicability of 35
15 Illinois Administrative Code 304.122: The provisions of
16 the Illinois Title 35, subpart C, part 304, subpart A,
17 section 304.122, i.e., 35 Illinois Administrative Code
18 304.122 is stated as follows: A, No effluent from any
19 source which discharges to the Illinois River, the Des
20 Plaines River downstream of its confluence with the
21 Chicago River system or the Calumet River System, and
22 whose untreated waste load is 50,000 or more population
23 equivalents shall contain more than 2-1/2 milligrams per
24 liter of total ammonia-nitrogen as N during the months

1 of April through October and 4 milligrams per liter at
2 other times.

3 B, Sources discharging to any of the above
4 waters and whose untreated waste load cannot be computed
5 on a population equivalent basis comparable to that used
6 for municipal waste treatment plants and whose total
7 ammonia-nitrogen as N discharge exceeds 45.4 kilograms
8 per day or 100 pounds per day shall not discharge an
9 effluent of more than 3 milligrams per liter of total
10 ammonia-nitrogen as N.

11 C, In addition to the effluent standards set
12 forth in subsections A and B of this section, all
13 sources are subject to section 304.105. Section 304.105
14 states, in addition to the other requirements of this
15 part, no effluent shall alone or in combination with
16 other sources cause a violation of any applicable water
17 quality standard.

18 It is my professional opinion, sections
19 304.122a and 304.122b do not apply to the Noveon-Henry
20 plant discharge for several reasons. The Noveon-Henry
21 plant untreated waste load can be computed on a
22 population equivalent basis comparable to that used for
23 municipal wastewater treatment plants. Consequently,
24 304.122b does not apply.

1 In my opinion the word "comparable" merely
2 questions whether the data exists to express an
3 untreated waste load in population equivalents like one
4 does when either designing or evaluating a municipal
5 wastewater treatment plant. The data for the
6 Noveon-Henry plant do exist and such calculations can be
7 made and have been made.

8 The results of such calculations allow one to
9 put the Noveon-Henry plant's untreated waste load in a
10 perspective others can readily understand, population
11 equivalents. The term "population equivalent basis" is
12 intended to put the relative size of an untreated waste
13 load in perspective. The term was never intended to
14 describe how the waste load was to be treated, but only
15 to the magnitude of the waste load. An untreated waste
16 load can be and has been calculated by me for the
17 Noveon-Henry plant discharge on a population equivalent
18 basis comparable to that used for municipal wastewater
19 treatment plants. I can testify to calculations.

20 Q Finish the statement, please.

21 A Consequently, 304.122a does not apply. Since
22 sections 304.122a and 304.122b do not apply, the
23 Noveon-Henry plant is not required to provide additional
24 effluent ammonia-nitrogen removal.

1 As stated above in my original testimony,
2 correct calculations clearly define the Noveon-Henry
3 plant discharge as having less than 50,000 population
4 equivalents.

5 Even though not a part -- even though not a
6 part of IEPA's definition of population equivalent,
7 population equivalents can also be calculated based on
8 ammonia-nitrogen and total Kjeldahl nitrogen loads that
9 are really the thrust of 35 Illinois Administrative Code
10 304.122. TKN is the same -- is the summation of
11 ammonia-nitrogen and organic nitrogen. The waste load
12 used to developed all effluent ammonia-nitrogen
13 reduction options included average loadings of 385
14 pounds per day ammonia-nitrogen and 1,038 pounds per day
15 of total Kjeldahl nitrogen. Based on population
16 equivalent factors of .019 pounds of ammonia-nitrogen
17 per capita per day and .029 pounds TKN per capita per
18 day. And those equivalent factors come from Wastewater
19 Engineering Treatment and Reuse, Metcalf and Eddy, Inc.,
20 Fourth Edition, page 182. The Noveon-Henry plant
21 population equivalents for ammonia-nitrogen would be
22 20,263 and for TKN would be 35,793.

23 It is my professional opinion that all
24 correct and relevant population equivalent calculations

1 for the Noveon-Henry plant place it under 50,000
2 population equivalents rendering 35 Illinois Code,
3 Administrative Code 304.122a and 304.122b not
4 applicable.

5 Q Thank you, Mr. Flippin. Since providing or
6 drafting that testimony, have you done any additional
7 work or evaluation or study or looked at any data that
8 was in existence prior to 1991 concerning the population
9 equivalent issue?

10 A I have.

11 Q What did you do?

12 A What I did was I reviewed existing
13 information from prior depositions that were taken and
14 information that was existing from a FOIA request.

15 Q All these -- strike that.

16 Did all those data exist prior to 1991?

17 A All of the data I reviewed existed prior to
18 1990.

19 Q What did you do after reviewing those data?

20 A I prepared a statement and evaluated
21 population equivalents.

22 Q What does it conclude?

23 A It concludes that even using data widely
24 available prior to 1990 that population equivalents were

1 less than 50,000.

2 MR. KISSEL: Mr. Hearing Officer, we are
3 prepared -- we have given a copy of the statement to
4 Ms. Williams and are prepared to have Mr. Flippin either
5 introduce it as an exhibit or have him read it into the
6 record.

7 HEARING OFFICER HALLORAN: Whatever your pleasure.

8 MS. WILLIAMS: I just got this this morning so I
9 guess -- I hate to do anything to make things take
10 longer. I haven't had a chance to look at it.

11 HEARING OFFICER HALLORAN: Do you have a copy I can
12 take a look at?

13 MS. WILLIAMS: It's based on something that was
14 faxed to me on Friday which I did get a chance to scan
15 but still not really review or share.

16 HEARING OFFICER HALLORAN: We'll take a five-minute
17 break.

18 (Whereupon, a recess was taken.)

19 HEARING OFFICER HALLORAN: Ms. Williams, have you
20 had a chance to review it?

21 MS. WILLIAMS: Yes. I have no objection to
22 admitting this as an exhibit.

23 HEARING OFFICER HALLORAN: Very well.

24 MR. KISSEL: Do you want him to read the testimony?

1 It's up to you. A couple of pages, again.

2 HEARING OFFICER HALLORAN: You know, I don't think
3 we need to read it in unless you want to.

4 MR. KISSEL: It's admitted into evidence?

5 HEARING OFFICER HALLORAN: It is admitted into
6 evidence as Petitioner's Exhibit Number 19.

7 MR. KISSEL: Thank you.

8 HEARING OFFICER HALLORAN: Do you have a premarked
9 one?

10 MR. KISSEL: We will get you a premarked one.

11 Q Mr. Flippin, what has now been referred to or
12 admitted into evidence as Petitioner's Exhibit Number
13 19, will you generally summarize it, and not in great
14 detail, but enough that members of the public here can
15 understand what you concluded and how you concluded it?

16 A Be glad to. What I would like to do, and I
17 think it would be helpful if I could read the first
18 paragraph and then summarize the remaining part of that.

19 Q Okay. Go ahead.

20 A I take the same apparent position on
21 computing population equivalents for the Noveon-Henry
22 plant untreated waste load that Jim Kammueler took in
23 his memo to Toby Frevert on March 16th, 1989.

24 MR. KISSEL: For purposes of the hearing,

1 Mr. Hearing Officer, that document is marked in this
2 record already, and it's document number 207 in the
3 record.

4 HEARING OFFICER HALLORAN: Thank you, sir.

5 A I personally believe that the Noveon-Henry
6 plant untreated waste load can be computed on a
7 population equivalent basis comparable to that used for
8 municipal wastewater treatment plants. Mr. Kammueler
9 appeared to believe the same since he refers to section
10 304.345 that defines population equivalents as terms
11 used to evaluate the impact of industrial or other
12 wastes on a treatment works or stream. One population
13 equivalent is 100 gallons or 380 liters of sewage per
14 day containing .17 pounds or 77 grams of BOD(5). In
15 other words, 5 day biochemical oxygen demand. And .2
16 pounds or 91 grams of suspended solids. The impact on a
17 treatment works is evaluated as the equivalent of the
18 highest of the three parameters. Impact on a stream
19 which is the case of Noveon is the higher of the BOD(5)
20 and suspended solids.

21 Mr. Kammueler asks the following question:
22 "Since BF Goodrich and Pekin Energy appear to have
23 untreated waste loads of greater than 50,000 PE,
24 standing for population equivalents, should their NPDES

1 permit contain effluent ammonia limitations per 304.122?

2 Mr. Kammueler's memo indicates he believed
3 that 304.122a may apply since this requires computation
4 of population equivalents. It also indicates that he
5 thought 304.122b did not apply since he spoke about the
6 Noveon-Henry plant in population equivalent terms.

7 Mr. Frevert stated in his response on April
8 5th, 1989, to Mr. Kammueler, "In your memo of March
9 16th, 1989, you asked if these two facilities should
10 have ammonia effluent limits. Since both of these
11 facilities are classified as industrial, the applicable
12 limits are contained in section 304.122b. Mr. Frevert's
13 response implies that he believes that population
14 equivalents cannot be computed for industrial
15 wastewaters. Yet it is my professional opinion that the
16 purpose in 304.345 is to facilitate such computations."

17 I affirm what I have said previously that
18 304.122a does not apply since the PE for the
19 Noveon-Henry plant untreated waste load is less than
20 50,000. This is true now and you will soon see that
21 it's been true prior to 1990. I also affirm my prior
22 written testimony that 304.122b does not apply since the
23 Noveon-Henry plant's untreated waste load can be
24 computed on a population equivalent basis comparable to

1 that used for municipal wastewater plants.

2 Now to summarize the remaining parts of this
3 Exhibit: In a memo dated August 24th, 1983, Thomas W.
4 Meyer and Lyle A. Ray of IEPA stated that the
5 Noveon-Henry plant received wastewaters from polymer
6 chemical waste at 250,000 gallons per day, 200
7 milligrams per liter, BOD, and 2,000 milligrams per
8 liter of TSS and received PVC waste at approximately
9 500,000 gallons per day, less than 100 milligrams per
10 liter of BOD, and approximately 1,000 milligrams per
11 liter of TSS.

12 The final effluent flow from the wastewater
13 treatment plant averaged 754,000 gallons per day during
14 the periods of April 1982 through July of 1983. The
15 population equivalents used by IEPA are 100,000 gallons
16 per day per capita, .17 pounds per day per capita, and
17 .2 pounds of TSS per capita, lead one to calculate a
18 population equivalent of -- based on flow of 7,500, a
19 population equivalent calculated on BOD of 4,906, a
20 population equivalent calculated on TSS of 41,700.

21 On April 23, 1987, Kenneth J. Willings of the
22 Noveon-Henry plant submitted to Mr. Tim Kluge, the
23 manager of the industrial permit section for IEPA,
24 application to permit construction. On page 4 of this

1 application Noveon stated the design untreated waste
2 load was 1.43 million gallons per day, 2,431 pounds per
3 day of BOD and 2,860 pounds per day of TSS. This
4 application was approved on April 28, 1987, by Thomas G.
5 McSwiggin, of the IEPA. And in this when you calculate
6 the population equivalents for flow BOD and TSS, each of
7 these give you a population equivalent of 14,300; again,
8 less than 50,000. And this was 1987.

9 In July of 1988 Mr. Willings also submitted
10 to Mr. Kluge a permit to construct. And this time it
11 was to construct an additional aeration tank and a
12 tertiary filter. And in his prior application it was to
13 construct what's now known as the PVC tank and PC tank,
14 two aeration tanks, a 213 centrate pretreatment system
15 and a sand filter. But in his July 21st, 1988,
16 application he again listed the same untreated waste
17 load information which leads one to calculate the
18 population equivalents of 14,300. Again, less than
19 50,000.

20 On April 24th, 1989, Mr. Willings again
21 submitted to Mr. Kluge an application for construction,
22 this time to construct an alternative tertiary filter to
23 the one he had proposed in the prior application.
24 Again, Mr. Willings listed the untreated waste load in

1 terms that allows one to calculate a population
2 equivalent of 14,300, again, less than 50,000.

3 On September 11th, 1989, Mr. Willings, again,
4 this time submitted the application for construction to
5 Mr. Pinneo of IEPA and asked permission to construct a
6 C-18 wastewater pretreatment system. Again, it was
7 approved in October 20th, 1989. And, again, if you go
8 through the population equivalent calculation, it would
9 show 14,300, less than 50,000.

10 At no point during the period of 1983 through
11 1989 did the Noveon-Henry plant have reason to believe
12 that 35 Administrative Code 304.122a or 304.122b applied
13 to the wastewater treatment facility effluent. IEPA was
14 well aware of the untreated waste load information for
15 this plant during this period.

16 MR. KISSEL: We have no more questions of
17 Mr. Flippin at this time.

18 HEARING OFFICER HALLORAN: Thank you, Mr. Kissel.

19 Ms. Williams, cross?

20 MS. WILLIAMS: Yeah. I have several questions of
21 Mr. Flippin.

22 CROSS-EXAMINATION

23 BY MS. WILLIAMS:

24 Q Just to kind of get everybody on the page

1 where we are at with some of these terms and names and
2 what have you. So based on your testimony in the record
3 when we talk about AWARE, Incorporated, and Eckenfelder
4 and Brown and Caldwell, those are all descriptions of
5 your company; it's just a change of names?

6 A Exactly.

7 Q And when we talk about Noveon and PolyOne, we
8 are talking about the former BF Goodrich-Henry plant,
9 correct? Those are all --

10 A At one point, yes.

11 Q At one point prior back, and they have since
12 changed their names to Noveon?

13 HEARING OFFICER HALLORAN: You may proceed,
14 Ms. Williams. I'm going to open the door.

15 Q I'm really glad my company hasn't changed
16 names that many times. That's a lot of new business
17 cards.

18 Your testimony says you published seven
19 papers directly related to the Noveon-Henry plant
20 issues?

21 A Yes.

22 Q Do you know if any of those have been
23 provided at this point in the record or as part of the
24 exhibits yet?

1 A They, to my knowledge, have not. They are
2 listed in my resume.

3 Q On page 3, I believe, of your testimony you
4 go through a number of facilities where you provided
5 assistance in various capacity with biological
6 nitrification. Can you tell us if any of those
7 facilities have effluent ammonia levels as great as
8 Noveon's?

9 MR. KISSEL: I object to the characterization.

10 HEARING OFFICER HALLORAN: I'm sorry, Gale, can you
11 read that question back, please?

12 COURT REPORTER: "On page 3, I believe, of your
13 testimony you go through a number of facilities where
14 you provided assistance in various capacity with
15 biological nitrification. Can you tell us if any of
16 those facilities have effluent ammonia levels as great
17 as Noveon's?"

18 HEARING OFFICER HALLORAN: And your specific
19 objection, Mr. Kissel, is --

20 MR. KISSEL: "As great as," I think it's a
21 mischaracterization or attempt to characterize an
22 effluent.

23 MS. WILLIAMS: His testimony does try and make
24 comparisons between an effluent, Noveon and population

1 equivalent basis. I would like to have a comparison
2 based on -- whether he is an expert to base a comparison
3 on the size and magnitude of ammonia contributions.

4 MR. KISSEL: I have no objection to that. I
5 disagree with calling it "as great as." I don't know
6 what that means.

7 HEARING OFFICER HALLORAN: Do you want to rephrase
8 that, Ms. Williams, or can you rephrase it?

9 Q Well, let's just start with, Do you know if
10 any of these facilities have ammonia discharges that
11 exceed 100 pounds per day?

12 A Without treatment unquestionably.

13 Q And after treatment?

14 A If you will, the purpose in the treatment was
15 to reduce the effluent ammonia loads. I have not
16 calculated the effluent ammonia loads for each of these
17 listed here, but, unquestionably, the quantity of
18 ammonia that needed to be addressed at these facilities
19 was as large or larger in many of these plants than that
20 of the Noveon-Henry plant.

21 Q Have you ever performed this type of work for
22 other facilities in Illinois, and this type of work
23 meaning related to biological nitrification. And I ask
24 simply because the companies you listed are out-of-state

1 companies. I just wonder if you have dealt with similar
2 situations in Illinois in the past?

3 A I have dealt with similar facilities in
4 Illinois in the past. I have worked with the Village of
5 Sauget which was an effluent ammonia issue that
6 required --

7 Q Do you know if the Village of Sauget
8 discharges to the Illinois River?

9 A Does the Village of Sauget discharge to the
10 Illinois River?

11 Q Yes. That was the question.

12 A I do not believe it does.

13 Q So it's your testimony, is it not, that you
14 have not assisted any other facilities greater than 100
15 pounds per day in ammonia flowing to the Illinois River?

16 A I have not performed that calculation, but I
17 am not aware of any as I sit here.

18 Q On page 6 of your testimony you talk about --

19 MR. KISSEL: Page 6?

20 MS. WILLIAMS: Yeah, page 6.

21 Q You talk about the total flow and that 60
22 percent of the total flow to the wastewater treatment
23 facility is coming from PolyOne and 35 percent is coming
24 from Noveon. Could you just sort of explain where the

1 other 5 -- what's represented by the other 5 percent?

2 A Which page?

3 Q I'm at the top of page 6. The paragraph
4 starts on page 5 and it's the last -- I believe the last
5 sentence on page 6. I mean the last sentence in the
6 first paragraph on page 6.

7 A The Noveon facility and the PolyOne facility
8 share common utilities. And part of the flow would be
9 due to the discharge from a common utilities function.
10 And part of it also would be due to storm water.

11 Q And by "common utilities," do you mean
12 cooling water?

13 A They share a boiler. They share a boiler.
14 They share river water treatment. And they
15 share -- needless to say it's hard -- they share the
16 same storm water utility pond.

17 Q So would it be accurate to say that extra 5
18 percent is discharge that can't be segregated between
19 the two; is that how you are trying to explain it to us
20 here?

21 A It is how I'm trying to explain it to you.

22 Q Okay, great. Also on that page you have the
23 paragraph where you talk about the C-18 manufacturing
24 discharge. Is that the same as what's referred to in

1 other documents as Curite 18?

2 A It is.

3 Q And you talk about how at one time that
4 wastewater was sent off-site for treatment, initially,
5 when it was first --

6 A Yes.

7 Q You also state that pretreatment now of this
8 wastewater does not do anything to reduce the effluent
9 levels of ammonia that are going out into the river?

10 A Yes.

11 Q This is not to say, though, that that
12 wastewater doesn't contribute to the ammonia levels in
13 the effluent, correct? It does contribute to those
14 levels, right?

15 A It does contribute to those levels.

16 Q Presumably when it was being transported
17 off-site for treatment, that would have resulted in
18 lower ammonia levels going to the Illinois River?

19 A Presumably.

20 Q Let's look at -- well, would the same be true
21 for suspended solids?

22 A Wouldn't think so because the -- that waste
23 stream is largely soluble, and so I don't think it
24 contains much suspended solids. And the facilities in

1 place for moving suspended solids at the plant are such
2 that I don't think it in and of itself would have
3 contributed much suspended solids.

4 Q On page 9 I would like to read a sentence of
5 your testimony here where you say -- we are talking
6 about the plant here, "The lack of nitrification is not
7 due to a lack of equipment or unfavorable treatment
8 conditions, but due to the presence of bio-inhibiting
9 compounds." Isn't it true that also the alkalinity is
10 one of the factors?

11 A Alkalinity is a factor in nitrification.

12 Q Isn't it also true that the lack of oxygen is
13 one of the factors?

14 A The lack of oxygen would inhibit
15 nitrification, but not at the Henry plant. What I mean
16 to say is the Henry plant has adequate alkalinity and
17 oxygen to support initiation and maintenance of a level
18 of nitrification.

19 Q There is a place that I would like to point
20 out where you just deviated slightly from your
21 testimony. I want to ask a question about that, and
22 that is when you were referring to the dissolved
23 oxygenation concentration.

24 A It's on page 7, last paragraph.

1 Q Right. There we go.

2 A Third line.

3 Q I believe what you said is -- in your written
4 testimony you say, "These basins are aerated to mix the
5 tank contents and maintain a minimum operating dissolved
6 oxygen concentration of 1.5 milligrams per liter."

7 A That's right.

8 Q Then I believe you added something to that?

9 A And, typically, 3 milligrams per liter.

10 Q So you are saying that it's more common that
11 the dissolved oxygen level is at 3?

12 A Yes.

13 Q Than it is at 1.5?

14 A Unquestionably.

15 Q And do you have any data to support that
16 conclusion?

17 A I do.

18 Q Can you explain what data we could look
19 through?

20 A The data for that would be historical
21 operating data which can be provided.

22 Q Isn't it true that BOD is what's used to
23 design a facility like Noveon rather than COD?

24 A One can use either. Historically, I have

1 used both in calculations. Let me explain. Most
2 effluent permit limits are written in terms of BOD. And
3 so one has to make sure that you comply with effluent
4 BOD limits. So calculations are done to ensure that you
5 are building a facility that's capable of complying with
6 the effluent BOD limits.

7 Q But isn't it true, Mr. Flippin, that you
8 didn't really look at the BOD figures until this
9 facility was having problems complying with the BOD
10 effluent limitations and instead you were looking at COD
11 prior to that?

12 MR. KISSEL: I'm going to object to that question.
13 There is no evidence in this record of any excursion of
14 a BOD limit. That is not in this record at all. BOD is
15 not even an issue in this proceeding.

16 HEARING OFFICER HALLORAN: Ms. Williams?

17 MS. WILLIAMS: I'm not trying to make an issue
18 whether they had excursions of the BOD. I think there
19 was some discussion of it in the nonsubstituted
20 testimony that he filed on the 6th. I'm not trying to
21 get at that. I'm trying to get at what point did he
22 begin to look at BOD for this facility and whether it
23 was a consideration in either designing this plant or at
24 the time relevant to this permit decision rather than at

1 a later stage in the process.

2 HEARING OFFICER HALLORAN: Mr. Kissel?

3 MR. KISSEL: I don't understand the relevance of
4 it. I'm sure Mr. Houston -- or Mr. Flippin could
5 testify about it.

6 HEARING OFFICER HALLORAN: I will sustain the
7 objection. However, Ms. Williams, if you want to
8 proceed with the offer of proof.

9 MS. WILLIAMS: We can move on. I have some related
10 questions that I think will be less of an issue.

11 Q It's true that a POTW, a publicly owned
12 treatment works, or municipal waste treatment facility
13 would use BOD, though, not COD, would use BOD as a
14 design parameter?

15 A In calculations, if you will, even if you
16 look at the state of the art model for designing POTW's,
17 you will see that they use COD as well.

18 Q They do?

19 A They do. Biowin is an -- it's the IAWQ
20 accepted model for design of POTW's.

21 Q But COD isn't used to calculate population
22 equivalents, is it?

23 A It can be. It's not in the Illinois
24 regulation.

1 Q And several places in your testimony,
2 Mr. Flippin, you stated that it's your professional
3 opinion that 304.122a and b don't apply to Noveon's
4 discharge?

5 A That's correct.

6 Q But yet you haven't worked for any other
7 facilities that could potentially be subject to this
8 regulation, correct?

9 MR. KISSEL: I think -- I don't know what relevance
10 that has in deciding to bring in other -- I don't know
11 if we should be getting into what other facilities are
12 covered or not covered by this regulation. I think
13 that's a whole area that I hope we can avoid.

14 MS. WILLIAMS: I agree 100 percent. I don't want
15 to get into that area either. He is presenting himself
16 as an expert on the interpretation of this particular
17 regulation. My questioning is merely to get at what he
18 bases his statement, that is, expert opinion. That's
19 all I'm trying to get at.

20 MR. KISSEL: That's fine.

21 HEARING OFFICER HALLORAN: You may proceed.

22 THE WITNESS: May I ask a question? Confer briefly
23 with the attorneys?

24 HEARING OFFICER HALLORAN: Sure. We'll go off the

1 record for a second.

2 (Whereupon, a recess was taken.)

3 HEARING OFFICER HALLORAN: There was a question
4 pending.

5 MS. WILLIAMS: Could you read it back?

6 COURT REPORTER: "And several places in your
7 testimony, Mr. Flippin, you stated that it's your
8 professional opinion that 304.122a and b don't apply to
9 Noveon's discharge?"

10 THE WITNESS: And I answered that yes.

11 Q I believe the final question was, basically,
12 you haven't worked for any other dischargers who might
13 potentially be subject to this regulation?

14 MR. KISSEL: I think I objected to that. I think
15 what you said was what was the basis of your opinion? I
16 think that was the question.

17 Q What is the basis for your professional
18 opinion as to this interpretation?

19 A My basis for my professional opinion is
20 two-fold. One, it is common for me to read regulations
21 and determine if the client does or does not comply or
22 is or is not affected. To answer your question
23 specifically that you asked earlier. Have I worked with
24 another client in the state of Illinois affected by

1 304.122? The answer to that question is, no, I have
2 not.

3 Q Thank you.

4 Did you attend the board hearings when this
5 rule was adopted?

6 MR. KISSEL: I can testify to that. I was there.

7 A I did not.

8 Q Have you read their opinions related to the
9 adoption of this rule?

10 A I have not.

11 Q Can you tell me what year 304.122a was
12 adopted?

13 A I cannot.

14 Q How about 122b?

15 A Cannot.

16 Q Are you aware of when those provisions were
17 last amended or revisited by the Board?

18 A I cannot.

19 Q Is it your testimony that the basis for two
20 separate applicability sections in 304.122, meaning
21 subsection A and subsection B, that the basis for
22 subsection B was to cover facilities without data to
23 calculate A?

24 A My interpretation of that is that it was to

1 cover facilities for which -- it was to cover facilities
2 for which a known treated waste load cannot be computed
3 on a population equivalent basis comparable to that used
4 for municipal waste treatment plants.

5 Q That was a quote from the regulations,
6 correct?

7 A It was.

8 Q But by the term "comparable," you mean there
9 is no data available?

10 MR. KISSEL: I'm not sure I understand the
11 question. I would object that it's unclear to me how to
12 answer it, but perhaps the witness can do that.

13 A I believe that data is available for the
14 Noveon-Henry plant.

15 Q Can I read to you from your testimony for a
16 second? Maybe it can clarify. It says, "In my
17 opinion" -- I am on page 11, in the first bullet point
18 there. It says, "In my opinion the word comparable
19 merely questions whether the data exist to express an
20 untreated waste load in population equivalents." So my
21 question is, Are you saying comparable means there is no
22 data?

23 A Comparable means that there is the -- to
24 determine if something is comparable, you certainly have

1 to have relevant data. And I believe that relevant data
2 exists for the Noveon-Henry plant.

3 Q And that's why you think that A applies?

4 A Yes.

5 Q So, presumably, if B was to apply to some
6 type of facility, it would have to be -- I mean, I don't
7 understand what you are saying B would apply to then?

8 A I certainly don't think it applies to the
9 Noveon-Henry plant.

10 Q Can you name one facility that you believe
11 subsection B would apply to under your interpretation

12 MR. KISSEL: I'm going to object to that on the
13 basis that it brings in other facilities. I think the
14 Agency is entitled to ask him the basis of his opinion.
15 I think he has given it, and I would object to bringing
16 in other facilities.

17 MS. WILLIAMS: Can you conceive of any
18 hypothetical --

19 HEARING OFFICER HALLORAN: Objection sustained.

20 Ms. Williams, are you going to rephrase that?

21 Q I would just like to understand what type of
22 even hypothetical facility would be covered by this
23 subsection as Noveon is attempting to interpret it?

24 MR. KISSEL: And I don't think that that's relevant

1 here. It's not a question of what other facilities are
2 covered, it's a question of whether this witness
3 believes this facility is covered.

4 MS. WILLIAMS: This case is about the
5 interpretation of this regulation. And it's certainly
6 relevant whether the Board would have adopted -- we are
7 looking at what the Board meant, why the Board adopted
8 this regulation with the language as it exists. And
9 it's our position the Board certainly would not have
10 adopted a new subsection B that wouldn't cover any
11 hypothetical or in our opinion any actually in existence
12 facilities at the time it was adopted.

13 HEARING OFFICER HALLORAN: I think I'm going to
14 revisit my ruling. I do find this somewhat relevant.
15 And I don't think Ms. Williams is going to go down a
16 long street on this. If you can answer this question,
17 Mr. Flippin, or excuse me, Ms. Williams' question.

18 MR. LATHAM: Can we have the question again?

19 COURT REPORTER: "I would just like to understand
20 what type of even hypothetical facility would be covered
21 by this subsection as Noveon is attempting to interpret
22 it?"

23 A Here is what I know. I know that population
24 equivalent for 304.345, section 304.345 defines a

1 population equivalent as terms used to evaluate the
2 impact of industrial or other waste on a treatment works
3 or stream, and it defines the factors. It says the
4 impact on a treatment works is evaluated as the
5 equivalent of the highest of the three. The impact on a
6 stream is the higher of the BOD(5) and suspended solids.
7 So in order for the impact on a stream and
8 suspended -- for the impact on a stream one would have
9 to have available information on -- for BOD and
10 suspended solids. And so an industry that did not
11 contain BOD and suspended solids would be one that could
12 conceivably fit 304.122b.

13 Q Let me get this straight. Instead of the way
14 I had phrased it, which is that there was no data
15 available, you are saying that the industry did not
16 produce or have a waste stream that contained BOD or
17 suspended solids?

18 A Based on my understanding of section 304.345.

19 Q Doesn't it make more sense to you in your
20 professional opinion, Mr. Flippin, that the intention
21 here was to cover industrial facilities whose waste
22 loads are different than municipal waste streams?

23 MR. KISSEL: I object to the form of the question.

24 HEARING OFFICER HALLORAN: Ms. Williams?

1 MS. WILLIAMS: What about the form of the question?

2 MR. KISSEL: It lacks -- she is asking him now what
3 the intent of the Board was, I think.

4 HEARING OFFICER HALLORAN: I don't know if he knows
5 the intent, but he has testified to what he thought the
6 intent was so I will allow the question to stand and if
7 you can answer it, Mr. Flippin?

8 THE WITNESS: Can you read it back?

9 COURT REPORTER: Sure. "Doesn't it make more sense
10 to you in your professional opinion, Mr. Flippin, that
11 the intention here was to cover industrial facilities
12 whose waste loads are different than municipal waste
13 streams?"

14 A No, it doesn't in my professional opinion.
15 And the reason it doesn't is in section 304.345 it says
16 that the whole purpose of having a population equivalent
17 is to evaluate the impact of industrial -- and I would
18 like to highlight the word "industrial" -- or other
19 wastes on a treatment works for stream.

20 Q Can you repeat that citation number again?

21 A Section 304.345.

22 Q Do you mean 301.345?

23 A 304.345.

24 MR. KISSEL: It's the definition of population

1 equivalent. So --

2 MS. WILLIAMS: Can we stipulate that the
3 definitions are in 301 and not 304?

4 MR. KISSEL: I think that's correct.

5 THE WITNESS: 301.345.

6 MR. HALLORAN: The record will so note.

7 MS. WILLIAMS: I just wanted it to be clear.

8 Q I would like to clarify another point so we
9 can have some perspective on the other testimony. On
10 page 7 going over to page 8 of your testimony, you
11 discussed some three types of compound present in
12 Noveon's discharge. I will read the sentence for you.
13 "Ammonia-nitrogen is present in the wastewater and is
14 formed through the degradation of the organic nitrogen
15 compounds such as amines, morpholine and
16 mercaptobenziothiazole."

17 Isn't -- just to clarify, isn't it true that
18 mercaptobenziothiazole is primarily an inhibitor to
19 biological nitrification rather than a precursor to the
20 ammonia creation?

21 A If you will, even though
22 mercaptobenziothiazole is an inhibitor to biological
23 nitrification, it can be degraded by heterotrophic
24 bacteria, bacteria whose common energy sources is

1 carbon. So it can be degraded. It's poorly degradable.
2 But in the process of being degraded, it would have the
3 opportunity to release ammonia.

4 Q And I'm not trying to disagree with that
5 testimony. I'm just trying to clarify that it's the
6 amines and the morpholine that primarily are what we are
7 talking about as degrading into the ammonia?

8 A And any other organic nitrogen compound.

9 Q But those two compounds are not inhibitive,
10 biological inhibitors. When we talk about biological
11 inhibitors, we are not talking about the amines and the
12 morpholine?

13 A We are not.

14 Q Okay. Thank you.

15 I would like to ask you a few questions about
16 the PE calculation exhibit. First I would like to
17 start -- before we turn to that -- with a portion of
18 your testimony where you talk about calculating PE from
19 the TKN.

20 HEARING OFFICER HALLORAN: Ms. Williams, what
21 exhibit are you looking at?

22 MS. WILLIAMS: Okay. Right now I am still looking
23 at his redacted testimony, the next-to-last paragraph,
24 page 13.

1 HEARING OFFICER HALLORAN: Thank you.

2 Q Are you with me?

3 A I am.

4 Q In that paragraph you calculate a PE
5 of -- well, why don't you remind us what the PE values
6 you calculated in that manner are?

7 A The PE's I calculated using the data that I
8 used and developing conceptual level design and cost
9 estimates for ammonia reduction -- effluent ammonia
10 reduction technologies, those values were 385 pounds a
11 day of ammonia-nitrogen and 1,038 pounds per day of
12 total Kjeldahl nitrogen. If one looks at that -- if one
13 takes population equivalent factors from a commonly
14 referenced text, Metcalf and Eddy, if one takes the
15 population equivalent factors in that text listed for
16 ammonia-nitrogen and TKN, one would determine that
17 population equivalents for the Noveon-Henry plant would
18 be 20,263 and 35,793. One for ammonia, the 20,263; and
19 the one for TKN, 35,793.

20 Q Now you agree, don't you, that this is not
21 the calculation that the Illinois regulations use for
22 reaching PE, right?

23 A Yes.

24 Q But the ammonia values that you have used in

1 this calculation are influent values, correct?

2 A The ammonia concentrations that are used here
3 are actually influent ammonia values.

4 Q And you would agree, wouldn't you, that those
5 influent ammonia values are significantly lower than
6 Noveon's effluent ammonia values?

7 A They are lower, the influent is lower.

8 Q Significantly lower?

9 A It's lower.

10 Q In calculating PE for a municipal plant using
11 this calculation, wouldn't the ammonia values in the
12 influent be higher than the ammonia values in the
13 effluent?

14 A Yes. Depending on if the plant was designed
15 to nitrify.

16 Q Point taken. Let's take a look at the
17 exhibit with your PE calculation. What number did we
18 give it?

19 A 19.

20 HEARING OFFICER HALLORAN: Do you have it in front
21 of you, Mr. Flippin?

22 THE WITNESS: Yes, sir.

23 Q When you talk in the first big paragraph
24 about how you feel that Mr. Kammuegger had the same

1 interpretation you did, you are not trying to say that
2 he agreed with you that their PE was less than 50,000,
3 are you?

4 A No, I'm not.

5 Q There are several calculations that you gave
6 here, and I would like to break them down into the first
7 one and then the other four or five. In the first one
8 you cite to a memo from 1983, "from our field staff."

9 A (Witness nodding head up and down.)

10 Q Are you aware of whether the data used here
11 was provided by Noveon or whether it was obtained from
12 actual measurements by the field staff?

13 A I'm uncertain.

14 Q But with that calculation, with those
15 figures, wherever they were obtained, you received PE
16 values from a low of -- well, it looks like the BOD is
17 the low one in this case; is that correct?

18 A That's correct.

19 Q Of 49,006?

20 A 40-- 4,900--

21 Q 4,906 -- sorry about that -- to a high of
22 41,700 PE for the TSS values?

23 A Yes.

24 Q In all the other calculations, if that's the

1 right way to call them, but in all the other statements
2 here in this testimony the values are equal, right, for
3 PE, BOD and flow?

4 A As reported in the permit applications.

5 Q I misstated that, I guess, flow, BOD and TSS.
6 So these are part of the permit applications. Isn't it
7 true that these calculations are all based on design
8 values rather than actual measured influent values?

9 A They were listed in the design category.

10 Q And yet even though the design flows are
11 twice what the actual flow was measured in your first PE
12 calculation, about twice, right? The TSS, PE is
13 something like 3 times the design value and over 5 times
14 the flow PE, correct?

15 A Would you please restate that?

16 Q Sure. That's a little confusing. I'll take
17 it one at a time.

18 The TSS, PE is about -- I guess, I got about
19 5-1/2 times the flow PE value in your first calculation.
20 Does that sound about right to you?

21 A Yes.

22 Q And it would even be 3 times the design PE
23 for TSS for this plant, for a TSS, PE of 14,000?

24 MR. KISSEL: I don't think -- where does it say

1 14,000?

2 Q 14,300 of the TSS, PE is the design values,
3 right?

4 A In the 1987 permit application.

5 Q And the actual value was about 3 times that
6 from measured data here of 41,000?

7 A I don't think you can make that comparison
8 because one is data from 1983 and one is design data in
9 an application in 1987, four years later.

10 Q Have any additional processes been added
11 since the 1983 data was taken?

12 A The processes that one would be interested in
13 would be any in-plant processes. And I can't testify as
14 to in-plant processes between '83 and '87.

15 Q Okay. Thank you. I think the point I'm
16 trying to get at, Mr. Flippin, is there is a wide
17 disparity in the PE values based on the different
18 parameters of this plant, correct?

19 MR. KISSEL: I'm going to object to the
20 characterization. I think the data speak for
21 themselves. In fact, the documents that Ms. Williams is
22 referring to are documents that are submitted to and
23 accepted by the Illinois EPA and the permits were issued
24 which are shown in the record of this proceeding. So I

1 think it's hard to go behind those data.

2 MS. WILLIAMS: Well, he has testified that he
3 doesn't really know where the data came from, whether it
4 was meant by us or them. So I'm not sure that the data
5 do speak for themselves in this case. I'm trying to get
6 to the meaning of the exhibit.

7 MR. KISSEL: I think that these were the documents
8 that were submitted to Illinois EPA. They accepted
9 them. But wherever the data was created or measured,
10 they issued permits as a result of that. That's what
11 the prior testimony in this proceeding is. And is it
12 now the EPA's contention that they can go behind all
13 that and start to question those data and make
14 comparisons between them?

15 HEARING OFFICER HALLORAN: Ms. Williams?

16 MS. WILLIAMS: Well, these calculations were not
17 part of them. I mean, this calculation that he did is
18 something that he derived from a document. I don't
19 understand. I guess I don't understand. Maybe I
20 phrased something wrong. I'm not sure what exactly
21 about my question is the basis of the objection. Maybe
22 I can rephrase it.

23 MR. KISSEL: What the witness has done here is to
24 take data prior to 1991, data that was submitted to the

1 Agency, available to the Agency, and made relatively
2 simple calculations by taking what the volume per flow,
3 what the BOD and what the suspended solids were and
4 divided them by the number called for in the Illinois
5 regulations. That's as simple as that. There is
6 nothing more, nothing less. And it all showed -- all
7 the data show that in all of the documents submitted to
8 the Agency and all of the things that were available to
9 the Agency that the PE were less than 50,000 for each of
10 those parameters. That's the simple calculation. So to
11 make comparisons between them or try to go behind the
12 data I think is inappropriate at this time.

13 MS. WILLIAMS: I think I understand then where we
14 are getting separated. I don't really consider it
15 relevant really to this question whether the PE is
16 actually above 50,000 or below 50,000. We are looking
17 at which section --

18 HEARING OFFICER HALLORAN: So you would sustain
19 Mr. Kissel's objection?

20 MS. WILLIAMS: I guess so. I was not trying to get
21 at -- I was actually trying to get at the question of
22 what is comparable? And in my mind what I'm trying to
23 get at here is these PE calculations cannot be compared
24 to a municipal plant because of the results that have

1 been derived here because these numbers vary from a flow
2 PE so greatly to a TSS PE that they are not comparable
3 to what would be achieved if you did the calculations
4 for a municipal waste treatment. And that to me is the
5 core of what this case is about.

6 MR. KISSEL: This comes from misinterpretation by
7 the Agency of the regulation. And that's been the
8 fundamental process here because the term "comparable,"
9 does not modify what they want it to modify. The term
10 comparable, it says -- if I can find this regulation.

11 MS. WILLIAMS: It's for the Board to decide.
12 That's why we are here.

13 MR. KISSEL: It says, "Whose untreated waste load
14 cannot be computed on a population equivalent basis
15 comparable to that for municipal waste treatment
16 plants." It's can it be computed or can't it be. It's
17 not whether the PE is comparable to that of a municipal
18 plant because municipal plants vary all over the lot.
19 So it's whether it can be computed that way then. And
20 this witness has stated, as has Mr. KammueLLer stated in
21 his testimony that --

22 MS. WILLIAMS: Mr. KammueLLer has not testified in
23 this proceeding.

24 MR. KISSEL: Well, in his documents.

1 -- that it can be computed that way. That's
2 what the phrase modifies. Can it be computed comparable
3 to that? And the Board regulations specifically say
4 that. This witness specifically said that. So it is
5 not an issue in this proceeding as far as I'm concerned,
6 Mr. Hearing Officer, and the Pollution Control Board,
7 that whether or not this waste is equivalent to that of
8 a municipal plant. That's not what the regulation says.

9 HEARING OFFICER HALLORAN: Briefly, Ms. Williams.

10 MS. WILLIAMS: I wasn't necessarily concerned about
11 whether this particular question got answered, but if
12 there is going to be a ruling here that this is not
13 relevant, I probably do have a problem with that because
14 he is getting at this is the core of what we are here
15 about today. We absolutely do contend -- and it's why
16 we are here -- that this regulation was not purely about
17 can the calculations be made in the same way. That
18 anything can be calculated a PE for including, as
19 Mr. Pinneo tells us, this glass of water here. We are
20 here to say this regulation was about whether the waste
21 streams -- whether that calculation, whether it is
22 meaningful whatsoever and what makes this calculation
23 for Noveon different than when that calculation is made
24 for a municipality.

1 HEARING OFFICER HALLORAN: I think that --
2 Mr. Kissel, I'm going to have to overrule you. I do
3 find it somewhat relevant, and I think that Mr. Flippin
4 can answer regardless of his answer would assist the
5 Board in making the proper determination on the permit
6 appeal before it. So without having Gale read back the
7 question, Ms. Williams, could you restate the question?

8 Q I just want to ask simply, isn't it true that
9 low BOD and TSS values for a municipal plant would be
10 closer to the same figure than they are in Noveon's
11 case?

12 MR. KISSEL: I don't understand --

13 HEARING OFFICER HALLORAN: That was a different
14 question.

15 MS. WILLIAMS: Well, should she repeat it back?
16 That was the question I was trying to get at.

17 HEARING OFFICER HALLORAN: Would you read, I guess
18 the last question back?

19 COURT REPORTER: Sure. "I just want to ask simply,
20 isn't it true that low BOD and TSS values for a
21 municipal plant would be closer to the same figure than
22 they are in Noveon's case?"

23 MS. WILLIAMS: The word was flow not low, flow BOD.

24 HEARING OFFICER HALLORAN: I heard low.

1 MS. WILLIAMS: When I asked the question the first
2 time you heard low?

3 HEARING OFFICER HALLORAN: Right. But my hearing
4 is bad. Do you understand the question, Mr. Kissel?

5 MR. KISSEL: No, I don't.

6 HEARING OFFICER HALLORAN: Could you rephrase that
7 because that was not the question you were asked five
8 minutes ago and I somewhat understood that.

9 MS. WILLIAMS: Do you want to ask him the question
10 that you think the Board would understand? Would that
11 help?

12 HEARING OFFICER HALLORAN: No. No. I will leave
13 it in your hands.

14 Q Mr. Flippin, you have presented three values
15 for PE in the first calculation that you provided,
16 right?

17 A You are referring now to --

18 Q 49,000 on the top of the second page where
19 you look at the actual data.

20 MR. LATHAM: Okay. Exhibit 19.

21 Q Exhibit 19, top of the first page, there are
22 three values.

23 MR. LATHAM: The top of the second page.

24 Q The top of the second page. 4,906, 7,500,

1 and 41,700 PE, three values. A low of 4,900 and a high
2 of 41,000. Can you explain for us the reason for such a
3 wide variation of values?

4 A The -- based on the data provided, the data
5 itself shows that when you calculate the population
6 equivalents, you get that wide range of variability. As
7 to why the TSS is higher substantially from the BOD or
8 the flow population equivalents, I do not know why that
9 variation is there. I just know the data supports that
10 variation.

11 HEARING OFFICER HALLORAN: Just to make the record
12 clear, if Mr. Kissel objected to that question and I
13 overruled it.

14 Q We can move on. I think I only have a couple
15 of more things. I just want one moment to confer with
16 my technical assistant.

17 (Whereupon, a recess was taken.)

18 Q I just want to ask you one quick thing about
19 when you looked at your diagram which I believe is
20 Exhibit --

21 MR. LATHAM: 18.

22 Q -- 18. In your narrative testimony you
23 described some things about the way the treatment system
24 works and there was some testimony about solids

1 recycling back within the system?

2 A (Witness nodding head up and down.)

3 Q Can you maybe explain that a little bit more
4 clearly to me? It went by kind of quickly. It's not
5 part of the written testimony. Where are solids
6 recycling in this?

7 A On the diagram you will see two filtration
8 steps. You will see a filtration step for the entire
9 plant effluent coming from the secondary clarifier.
10 What you will also see is a filtration step that we are
11 calling sludge -- it's also sludge dewatering. It's a
12 filter press. And what happens -- and you will also see
13 how going to the filter press are secondary clarifier
14 underflow solids and primary clarifier underflow solids.
15 Each of those two streams go to the filter press for
16 dewatering.

17 Under normal operations the plant takes the
18 backwash water off the sand filter or the tertiary
19 filter downstream of the secondary clarifier. As that
20 filter is operating, there is a stream that continuously
21 cleans the sand filter and sends reject or solids that
22 are captured back to the PVC tank. So those solids, if
23 you will, do get, quote, unquote, recycled. They go
24 back to the PVC tank. And, therefore, the other stream

1 that goes back to the PVC tank you will see is filtrate
2 from sludge dewatering. And so the solids that aren't
3 captured by the filter press also go back to the PVC
4 tank.

5 Q Can you tell us, does that filtrate have an
6 appreciable amount of solids in it?

7 A The filtrate -- commonly for a filter press
8 one will have about 95 percent capture and the solids
9 concentration coming off the secondary clarifier and the
10 primary clarifier going to the filter press will have,
11 typically, to the tune of anywhere from 10- to 30,000
12 milligrams per liter. And, therefore, the concentration
13 that would be in the filtrate would be anywhere from 500
14 to about 1,500 milligrams per liter. Now, that's the
15 filter press when it's normally operating. However,
16 when the filter press is not operating, the primary
17 solids are still being withdrawn from the bottom of this
18 primary clarifier. And when the filter press is
19 operating, that's where they go. But when it's not
20 operating, they go back to the PVC tank. And, again,
21 those solids can have concentrations of 10- to 30,000
22 milligrams per liter total suspended solids.

23 Q How often would that be that the filter press
24 wouldn't be operating?

1 A Mr. Giffin would be a better person to
2 testify about that.

3 Q We are not going to get testimony from him,
4 though, in this proceeding today. Can you give us an
5 estimate, or --

6 A I would hesitate to estimate that because I'm
7 not as familiar with the day-to-day plant operations.

8 Q And also on this table you talk about the
9 pond water?

10 A Yes.

11 Q That does not go through the treatment plant
12 itself, that water goes only through a sand filter,
13 correct?

14 A And a portion goes to the treatment plant
15 itself as well.

16 Q That's used to balance out the flow in the
17 tanks, correct?

18 A Yes. And when the filter for the pond water,
19 when its capacity is approached, the water has to be
20 sent back through the treatment plant.

21 Q When the capacity of the sand filter is
22 approached?

23 A Yes. For the pond water filtration.

24 Q And why is that?

1 A Well, the filter for the pond water is only
2 sized to accommodate a certain amount of flow. When
3 that flow is exceeded -- when that flow is approached,
4 rather than overload the unit and prevent it from
5 providing, quote, unquote, "reasonable treatment
6 performance," the water has to be put back through the
7 treatment plant to keep from overloading the filter.

8 Q Wouldn't you agree, Mr. Flippin, that when
9 the pond water -- when the two -- you know, there is the
10 water that -- the pond water that has gone through the
11 sand filter, when that waste stream is combined with the
12 remaining process waters, wouldn't you call that
13 dilution of the process wastewater stream?

14 MR. KISSEL: I will object to the characterization
15 of that, but you can answer the question. I mean,
16 it's --

17 HEARING OFFICER HALLORAN: Mr. Flippin?

18 A I believe that the waters going to the pond
19 itself would fall into process wastewater description.

20 Q So you would consider them two separate
21 processes, wastewaters?

22 A Both receive process wastewater. The bulk of
23 the process wastewater is treated in the wastewater
24 treatment facility. Another portion of the process

1 wastewater is treated by a filter.

2 MS. WILLIAMS: Okay. Well, I think that's all I
3 have.

4 HEARING OFFICER HALLORAN: Mr. Kissel, redirect?

5 MR. KISSEL: I will try to leave it to one quick
6 thing.

7 REDIRECT EXAMINATION

8 BY MR. KISSEL:

9 Q Looking at the treatment system that's
10 described in your petition as Petitioner's Exhibit
11 Number --

12 MS. WILLIAMS: 18.

13 Q -- in your view is this one treatment system?

14 A Yes.

15 MR. KISSEL: Thank you.

16 HEARING OFFICER HALLORAN: Ms. Williams, any
17 recross?

18 MS. WILLIAMS: No. No recross.

19 HEARING OFFICER HALLORAN: I do want to, before I
20 forget, make clear on the record that this hearing was
21 initially scheduled to take place in the downstairs
22 boardroom. However, we found the accommodations a bit
23 small. The clerk allowed us to come to the second floor
24 court room, and there is a note posted outside the

1 boardroom, which I posted, indicating that the hearing
2 is proceeding upstairs in this court room. With that
3 said, we can go off the record.

4 Excuse me, before we go off the record, do
5 any members of the public want to make comment before we
6 take lunch, and I think we are going to take lunch. I
7 see no hands or nods.

8 (Whereupon, a luncheon recess was
9 taken.)

10 HEARING OFFICER HALLORAN: We are back on the
11 record. We took a break from about 12 to 1 for lunch.
12 It's my understanding that Petitioner has rested its
13 case in chief. Correct?

14 MR. KISSEL: That's correct.

15 HEARING OFFICER HALLORAN: Now, Ms. Williams, you
16 are on for the IEPA. You have expressed an interest in
17 doing an opening statement?

18 MS. WILLIAMS: Thank you. Good afternoon. My name
19 is Deborah Williams. I'm here today representing the
20 Illinois EPA in defense of the permit issue to the
21 predecessor corporation to Noveon, Inc., BF Goodrich, on
22 December 28th, 1990.

23 The permit at issue today is a national
24 pollutant discharge elimination system or NPDES, permit

1 number IO0001392.

2 Today's hearing is a bit unusual.
3 Technically it's a continuation of a hearing that was
4 already initiated. However, the initial hearing was
5 held over 12 years ago. The board members deciding the
6 case, hearing officer and myself were not around at that
7 time. Fortunately for us many of the other necessary
8 participants were. The Agency will be presenting
9 testimony today from permit writer Richard Pinneo who
10 has been assigned to write permits for the Henry plant
11 since he came to the Agency in the mid 1980s. In
12 addition, Robert Mosher will be available to address any
13 outstanding issues related to toxicity and
14 biomonitoring. Fortunately, Bob was also a part of the
15 team that made these decisions relevant to Noveon's 1990
16 permit.

17 In a permit appeal case the petitioner has
18 the burden of proof to demonstrate that the special
19 conditions in the permit issued by the Agency are
20 unnecessary and have no basis in law or evidence.

21 The evidence to be presented at today's
22 hearing is to be based exclusively on the record before
23 the Agency at the time the permit or decision was
24 issued.

1 The parties today are disputing four issues
2 in the 1990 permit. At the center of the dispute is the
3 applicability of an ammonia effluent limitation to
4 Noveon's discharge. That effluent limit contained in
5 special condition 4 of the 1990 permit is based on a
6 regulation contained in 35 Illinois Administrative Code,
7 section 304.122 ,which throughout these proceedings will
8 be simplified to 304.122.

9 Petitioner argues that the Agency should
10 estopped from including this limitation in the 1990
11 permit since the requirement -- since the regulation has
12 been in existence since the 1970's and has not until
13 this permit been applied to the petitioner.

14 Illinois law is very clear with regard to use
15 of an estoppel against a public body and interpretation
16 of its own regulations. It sets a very stringent
17 standard which cannot be met in this case And at a
18 minimum requires an affirmative misrepresentation, and
19 Petitioner will present no evidence that the Agency
20 affirmatively told them that this requirement did not
21 apply.

22 Petitioner also argues that the language of
23 304.122b and the intent of the rule should exempt it
24 from applicability. And you will hear much discussion

1 of the meaning of the term "comparable" to that used for
2 municipal waste treatment plants. The Agency is
3 confident that the only logical reading of this
4 provision is that 304.122b was adopted specifically to
5 cover dischargers like Noveon with industrial waste
6 streams for whom calculations of traditional PE values
7 produce figures that give no meaningful information
8 about the magnitude or nature of the discharger's final
9 effluent to the Illinois River.

10 Related to Noveon's objection to the
11 applicability of this technology-based effluent limit is
12 the subjection to the requirement in special condition 6
13 of the NPDES permit that biomonitoring and a toxics
14 reduction evaluation be conducted. The Agency agrees
15 with Petitioner that if no ammonia effluent limit is
16 imposed, then one important basis for this special
17 condition will no longer be present. The condition was
18 originally intended primarily to determine whether the
19 enormous levels of ammonia in Petitioner's discharge
20 have been masking toxicity of other compounds also in
21 Noveon's discharge. And until these levels are reduced
22 it will difficult or impossible to discover whether
23 there are other parameters causing toxicity. However,
24 the Agency still maintains that even without ammonia

1 reductions this condition is still meaningful and
2 appropriate under part 309 of the Board's regulation.
3 And the Agency will present testimony from Bob Mosher
4 regarding this requirement and its appropriateness in
5 the permit.

6 Noveon also appeals special conditions 5 and
7 7 in which the Agency has required special monitoring of
8 the process waste stream from the storm water,
9 demineralization, lime softening and cooling water waste
10 treatment. The Illinois EPA has held that separation of
11 outfalls is necessary based on changes in Petitioner's
12 treatment processes and the need to determine whether
13 Petitioner is in compliance with the best degree of
14 treatment requirements and prohibition of the use of
15 dilution to meet limits.

16 By its express terms, this regulation 304.122
17 provides great latitude to the Agency to make this
18 determination, and the evidence presented today will
19 show the determination made by the Agency was reasonable
20 and consistent with the Board's intent to discourage
21 dilution.

22 Lastly, Noveon appeals in its NPDES permit
23 the portions which the Illinois EPA incorporates
24 requirements of the federal requirements for organic

1 chemicals, plastics and synthetic fibers industries.
2 These regulations will be referred to as the OCPSF
3 regulations. Testimony from the permit writer will
4 demonstrate that these requirements were appropriately
5 based on interpretations of U.S. EPA guidance and
6 regulations as applied to Noveon's plant.

7 The testimony presented at the 1991 hearing
8 combined with today's testimony will fairly show that
9 Petitioner has not met the burden of proof required by
10 section 40a of the act to overturn its 1990 permit as
11 issued by the Agency. And the Agency has substantial
12 evidence in the record on which to base its decision.
13 The Agency would also like to thank the Board in advance
14 for its patience in wading through such an old case.

15 At this time I would like to call Bob Mosher.

16 HEARING OFFICER HALLORAN: Before we get started,
17 any of the members of the public -- and I think there is
18 three or four out there; is that correct? Raise your
19 hand. Would you like to make public comment? Just let
20 me know. As I stated earlier, just raise your hand and
21 I will try to accommodate you as soon as I'm able.
22 Thank you.

23 (Witness sworn.)

24 ROBERT G. MOSHER,

1 called as a witness, after being first duly sworn, was
2 examined and testified upon his oath as follows:

3 DIRECT EXAMINATION

4 BY MS. WILLIAMS:

5 Q Please state your name and occupation for the
6 record.

7 A Robert Mosher. And I'm the manager of the
8 water quality standards section at Illinois EPA.

9 Q How long have you held this position?

10 A About 16 years in the capacity of managing a
11 standards unit or section. And I have been with the
12 Agency a total of 18 years.

13 Q What do your duties currently consist of at
14 the time?

15 A Two major functions. One would be developing
16 new or updated water quality standards and suggesting
17 those as Board regulations. And the other would be
18 implementing existing water quality standards through
19 NPDES permits or 401 certifications.

20 Q How many staff do you have under you?

21 A There are three others in the standard
22 section.

23 Q Could you tell us your educational
24 background, please?

1 A Yeah. I have got a bachelor of science
2 degree in environmental biology and zoology from Eastern
3 Illinois University, and I also have a master of science
4 degree from Eastern Illinois also in zoology.

5 Q I would just like to talk to you briefly
6 about the four objections that have been raised in the
7 Noveon permit. The first deals with the applicability
8 of ammonia effluent limits to their discharge. Were you
9 involved in the development of the regulations contained
10 in 304.122?

11 A No, I wasn't.

12 Q Have you been involved in the development of
13 later ammonia regulations?

14 A Yes, I was. In both 1996 and 2001 water
15 quality standards for ammonia were adopted and then
16 revised in the boardroom. I was involved in both of
17 those.

18 Q Have you ever been involved in any seminars
19 or task forces related to ammonia?

20 A Well, in 1999, United States EPA adopted a
21 new national water quality criterion for ammonia, and I
22 was on a task group as a state representative. And we
23 provided some sounding board capacity for the federal
24 employees that were putting the new national criterion

1 together for ammonia.

2 Q Do you consider yourself an expert in ammonia
3 water quality standards and toxicity for wildlife?

4 A Yes. In the capacity, again, as a state
5 regulator I have been doing it for many years. So I
6 guess you could call me an expert.

7 Q Do you have an opinion regarding the
8 environmental basis and benefit of this regulation
9 304.122?

10 A Yes, I do.

11 Q Could you tell us what your opinion is?

12 A Yeah. I believe that regulation was adopted,
13 of course, many years ago by the Board to solve a
14 problem that existed in the Illinois River and some of
15 its major tributaries and that point source dischargers
16 were contributing high quantities ammonia to that water
17 body and that was having an adverse effect on aquatic
18 life. And so by establishing a technology-based
19 standard for effluents the Board cured the problem.
20 They cut back on the amount of ammonia that entered the
21 waterway, and that had the good impact of making it fit
22 for aquatic life. And now we enjoy a much healthier
23 fishery and habitat for other forms of aquatic life in
24 the upper Illinois River.

1 Q Do you feel that the basis for this rule was
2 faulty at all?

3 A No.

4 Q Does the Board also look at technology
5 available to meet limits and the cost of such technology
6 when they adopt regulations?

7 A Yes, they do.

8 Q Do you know when 304.122a was adopted?

9 A I believe it was 1972.

10 Q And do you know when 304.122b was adopted?
11 Was it adopted at the same time?

12 A No. I believe it was a year later in 1973.

13 Q Has 304.122, that particular section, been
14 opened and amended by the Board since that time?

15 A Yes, it has. On two occasions coinciding
16 with the water quality standards for ammonia that I
17 mentioned earlier in 1996 and again in 2001, the
18 effluent standard for ammonia was added to in 1996. And
19 then what was added in '96 was taken away in 2001

20 MR. KISSEL: I'm going to object to the -- or ask
21 that the answer be stricken. And, perhaps, the question
22 was proper, but the answer isn't. The question of
23 whether this particular regulation was modified, what he
24 is talking about is a totally different ammonia standard

1 regulation, not 304.122.

2 MS. WILLIAMS: No. That's not --

3 MR. KISSEL: That's true.

4 MS. WILLIAMS: No, it's not.

5 MR. KISSEL: Well --

6 HEARING OFFICER HALLORAN: Wait a minute. 304 --

7 MR. KISSEL: The question was proper. I have no
8 objection to it. But whether 304.122 was modified, it
9 was never modified in 1996 or 2001. And there is no
10 reference to that. He was talking about a totally
11 different regulation which is not at issue in the permit
12 proceeding. We can clarify it by asking him the
13 question. I think that the --

14 MS. WILLIAMS: I would like to clarify with an
15 exhibit, if I can. If I can find it. I wasn't
16 expecting to go here.

17 HEARING OFFICER HALLORAN: Certainly.

18 Q Do you think you can explain what changes
19 were made to 304.122 at that time?

20 A Yeah. There was a provision called effluent
21 modified waters that was added.

22 MR. KISSEL: Mr. Hearing Officer, that had nothing
23 to do with 304.122. Effluent modified waters, we
24 participated --

1 MS. WILLIAMS: That --

2 HEARING OFFICER HALLORAN: Excuse me, Ms. Williams.

3 MR. KISSEL: It had nothing to do with that
4 standard. In addition to that, not only did it have
5 nothing to do with it, we are now talking about the very
6 thing that Ms. Williams objected to bringing up issues
7 post 1990 which are totally -- according to
8 Ms. Williams --

9 MS. WILLIAMS: No, that's fine. I understand that.

10 MR. KISSEL: I will be happy to recall Mr. Flippin
11 and have him read his testimony into the record if
12 that's what we want to get into.

13 HEARING OFFICER HALLORAN: Ms. Williams?

14 MS. WILLIAMS: No, that's fine. I think we wanted
15 a simple question answered of whether that particular
16 section had been altered. And I'm done with that. I
17 thought there was maybe some dispute over the facts of
18 whether that section --

19 MR. KISSEL: There is. There is absolutely a
20 dispute of the facts. Effluent modified waters, when we
21 participated in those proceedings before the Board, had
22 nothing to do with 304.122, nothing.

23 MS. WILLIAMS: But they were contained in that
24 section, right? I mean, that's all I'm asking. You are

1 not disputing that they were contained in section
2 304.122?

3 MR. KISSEL: It's totally irrelevant to this
4 proceeding. It has nothing to do --

5 MS. WILLIAMS: If you want to talk about whether
6 it's relevant, then I can support his objection; that's
7 fine. If you want to say it's not relevant, I'm not
8 going to -- we will move on. I think the -- I didn't
9 want to disagree that it's not true that the
10 section -- that the fact -- it's not unfactual is what
11 he was saying which is what your first argument was that
12 it was not true.

13 MR. KISSEL: Section 122a and 122b were not
14 modified in 1996 or 2001; is that correct?

15 HEARING OFFICER HALLORAN: Here is what I'm going
16 to do -- I'm sorry, your answer? Were you asking him a
17 question?

18 MR. KISSEL: Yes. Isn't that correct?

19 THE WITNESS: Well, as near as I can remember, A or
20 B was not modified.

21 MS. WILLIAMS: Thank you, Bob. We will move on.

22 HEARING OFFICER HALLORAN: Do you want me to rule
23 on your objection?

24 MR. KISSEL: No. He has answered the question. My

1 point was, Mr. Hearing Officer, is bringing in a whole
2 series of proceedings on effluent modified waters which
3 took days and days of hearing and discussions.

4 HEARING OFFICER HALLORAN: Thank you.

5 Q Why don't we move to biomonitoring. Are you
6 familiar with special condition 6 in Noveon's permit?

7 A Yes.

8 Q Can you explain what that section requires?

9 A It requires some whole effluent toxicity
10 testing to be conducted six times. And then it has a
11 provision that a toxicity reduction evaluation may be
12 required of the discharger. And, of course, a toxicity
13 reduction evaluation is a procedure done on effluent to
14 try to discover what it is that is toxic in that
15 effluent.

16 Q Can you tell us what the legal basis is for
17 that requirement in that permit?

18 A Yeah. Board regulation, that 35 Illinois
19 Administrative Code 309.103, I believe.

20 Q And that section has authority for what?

21 A It allows biological testing to be required
22 in NPDES permits.

23 Q Would this monitoring be necessary if the
24 ammonia effluent standards are not imposed on this

1 permit?

2 A Well, yeah, I think so. The reason that
3 monitoring is there is so the Agency can monitor trends
4 in whole effluent toxicity. And it doesn't matter what
5 the cause of that toxicity is, we want to know what the
6 current status of that effluent is.

7 Q So you don't consider this condition to be
8 duplicative of previous testing that was conducted?

9 A No, because effluents can change, processes
10 at the plant can change. Effectiveness of treatment can
11 change. All those things could lead to different
12 results in whole effluent biomonitoring.

13 Q How long have you been reviewing
14 biomonitoring studies at the Noveon facility?

15 A I believe it goes back to 1986 or 1987. I
16 have been reviewing all the biomonitoring that the
17 Agency has ever done, and it started in 1986.

18 Q How often are industrial facilities usually
19 required to do biomonitoring?

20 A Well, it depends on their history. Certainly
21 if we find whole effluent toxicity in an effluent, we
22 are more likely to go back oftener than not. The six
23 months testing schedule that is in the permit, special
24 condition 6, is very typical of what we require where we

1 have found previous whole effluent toxicity.

2 Q What about the TRE requirement? Do you know
3 what the basis is for that requirement?

4 A Well, again, any time we put in a requirement
5 for the six months of testing, again, because we have
6 noted past toxicity, we put in the requirement for the
7 TRE because that gives us options to further investigate
8 that effluent or have the permittee further investigate.
9 Depending on what we find in those six months, we can
10 ask for more testing, we can ask for investigations as
11 to the chemicals that are causing the toxicity and how
12 they might be eliminated or treated.

13 Q Do you know if U.S. EPA has had anything to
14 say about the TRE requirement like those used in this
15 permit?

16 MR. KISSEL: I object on the grounds of hearsay.

17 HEARING OFFICER HALLORAN: Ms. Williams?

18 MS. WILLIAMS: I'm considering rephrasing the
19 question.

20 HEARING OFFICER HALLORAN: Objection sustained.

21 Q Are you aware, personally, of any
22 correspondence from U.S. EPA on this subject?

23 A Well, we are reviewed by U.S. EPA from time
24 to time about programs like whole effluent

1 biomonitoring. And we have gotten good feedback from
2 U.S. EPA about the way we implement that program and
3 permits, and they have no objections or problems that I
4 know of with the way we do it.

5 MS. WILLIAMS: That's all I have for this witness.

6 HEARING OFFICER HALLORAN: Thank you.

7 Mr. Kissel?

8 CROSS-EXAMINATION

9 BY MR. KISSEL:

10 Q Mr. Mosher, you indicated that you gave some
11 testimony about the Board's reasons for adopting
12 304.122, did you not?

13 A Yes.

14 Q Where did you glean that from from your
15 position?

16 A Well, technology-based standards, effluent
17 standards are one way of doing things. And if you look
18 at the history of water quality standards in this
19 country, a lot of the earlier standards were
20 technology-based standards which means you set a limit
21 based on what treatment technology is able to produce
22 for effluents. And you have them -- you have them
23 comply with that and for large water bodies that have
24 several point sources or several effluents going into

1 them. That is a way, a successful way that not only
2 ammonia has been dealt with in the past, but other
3 parameters also. And that technology-based standard
4 method is kind of balanced by a water quality-based
5 standards or permit limits.

6 Q Go ahead. I want you to finish.

7 A Water quality-based permit limits are
8 more -- in more recent years, but we now have in the
9 Board's regulations both kinds of -- both avenues that
10 we can regulate water quality through.

11 MR. KISSEL: Mr. Hearing Officer, I move to strike
12 anything that refers to anything after 1991.

13 HEARING OFFICER HALLORAN: Ms. Williams?

14 MS. WILLIAMS: Mr. Hearing Officer, I have no
15 objection. I'm not sure exactly --

16 MR. KISSEL: He said, we have "now."

17 MS. WILLIAMS: We have now. Okay.

18 HEARING OFFICER HALLORAN: Move to strike granted.

19 Q My question -- notwithstanding your answer,
20 Mr. Mosher, my question was, What did you review in
21 order to determine what the Board's opinion was in
22 adopting 304.122?

23 A I think my answer was based on general
24 principles of standards.

1 Q Pretty simple question, What did you review
2 to determine the Board's basis for adopting 304.122?

3 A Nothing specifically on their adoption.

4 Q What unspecifically did you do?

5 A Well, let me go back to my earlier answer.
6 It's a general principle of water quality standards.

7 Q So you don't know if the Board adopted this
8 to protect aquatic life or not, do you? Do you?

9 A Well, I think I do.

10 Q How do you know that?

11 A There isn't any other reason for doing it.

12 Q What about dissolved oxygen?

13 A Aquatic life needs dissolved oxygen also.

14 Q So without knowing anything the Board did in
15 background, you believe that this regulation, based upon
16 your own knowledge, was there to protect aquatic life;
17 is that correct?

18 A I believe that, yes.

19 Q Do you have any document, statement, memo,
20 conversation, that will affirm what you just said?

21 A Conversation, I have had numerous
22 conversations at the agency and --

23 Q With whom?

24 A Supervisors over the years.

1 Q Whom? Name. Person?

2 A Toby Frevert.

3 Q What did they consist of?

4 A Talking about technology-based water quality
5 standards or effluent standards.

6 Q You indicated that there was better aquatic
7 life as a result of the adoption of this standard; is
8 that correct?

9 A Yes.

10 Q What evidence do you have of that?

11 A Well, the Agency does trend analysis of water
12 quality data collected in all rivers and streams, all
13 major rivers and streams, including the Illinois River.
14 And there has been a pretty dramatic change in the water
15 quality. Ammonia levels have gone down, dissolved
16 oxygen levels have gone up, fish have repopulated the
17 river.

18 Q Is this downgradient of the Henry discharge?

19 A I'm speaking of the entire upper Illinois
20 River.

21 Q I'm talking about the discharge from the
22 Henry plant, and has there been a positive impact
23 downgradient of the Henry plant as a result of the
24 adoption of this regulation?

1 A I think I said that the whole upper Illinois
2 River, and I would include the Henry area as being in
3 the upper Illinois River.

4 Q So the water quality has improved
5 downgradient of the Henry plant; is that correct?

6 A You could say that.

7 Q No. I'm asking you. You are the witness.

8 A Well, I think I just did say that.

9 Q Fine. That's all I want to know. So
10 notwithstanding the fact that the Henry plant has
11 continued to discharge ammonia, the water quality has
12 gotten better? Is that correct?

13 A That's correct.

14 Q You indicated that this regulation is
15 technology based; is that correct?

16 A Yes.

17 Q What technology did the Board consider in
18 adopting this regulation that would treat ammonia to the
19 levels contained in that regulation?

20 A I'm not an expert in the technology. And I
21 think Rick Pinneo would probably best answer that
22 question for you.

23 Q So what you are saying is that you don't know
24 if they considered any technology; is that correct?

1 A Well, in my experience with the Board, I
2 believe they have always considered that.

3 Q I'm not talking about general experiences. I
4 have had experience with the Board, too. I'm talking
5 about this particular regulation. Do you know if the
6 board considered specific technologies which would be
7 used to treat to the levels of ammonia contained in this
8 regulation?

9 A I'll say no, I don't. And you'd best ask
10 Rick Pinneo that question.

11 Q So your statements on technology really mean
12 that you don't know on this, contemplating this
13 regulation?

14 A Well, I made some statements about
15 technology-based standards, and I think --

16 Q Well, the implication answered that. The
17 implication, Mr. Mosher, is that there is
18 technology -- strike that.

19 Do you know, then, if there is any technology
20 that is available to the Henry facility to meet the
21 limits of the 304.122?

22 A That kind of information I only hear from
23 others at the Agency.

24 Q But you have no personal knowledge of that?

1 A No.

2 Q Are you familiar with studies done by the
3 Illinois State Water Survey which form the basis of this
4 rule?

5 A No.

6 Q Are you familiar with a person by the name of
7 Ralph Evans?

8 A Yes. I have heard of him.

9 Q Who is he?

10 A I know him in that he did some toxicity
11 studies on total dissolved solids, sulphate and
12 chloride. And I believe he worked for the State Water
13 Survey.

14 Q Do you know who Tom Butts is?

15 A I have heard of him also.

16 Q Do you know where he is or was?

17 MS. WILLIAMS: I think I would like to object at
18 this time. We can have this discussion and if you want
19 to overrule it, that's fine. But I believe this line of
20 questioning is heading towards the legitimacy of this
21 rule whether they agreed with the reasons for having the
22 rule. It's not whether it should or shouldn't apply to
23 this facility, and I don't think it's appropriate in
24 this proceeding to get into the scientific basis for the

1 rule, what it was and whether it still exists.

2 MR. KISSEL: Well, the fact is the door has been
3 opened by the EPA with Mr. Mosher's testimony in which
4 he said he knew what the basis of this rule was. And
5 all I'm trying to do is to acquaint him or ask him if he
6 knows really what the science was that this rule was
7 based on. It's part of --

8 HEARING OFFICER HALLORAN: I will allow a little
9 latitude. The door has been opened.

10 MS. WILLIAMS: I understand. My concern about
11 whether -- this is not a technical proceeding to ask
12 whether the Board should have amended this rule because
13 this study is an old study. That's for the Board to
14 decide by amending a rule, not by --

15 HEARING OFFICER HALLORAN: And I have full faith
16 and confidence the Board will do that. I think, again,
17 the door was opened and I think -- you know, I'm not
18 sure what area we don't want to go.

19 But, Mr. Kissel, I'm not sure if a question
20 is pending.

21 MR. KISSEL: Right. Let me start -- or continue.

22 Q Are you aware of a study done prior to 1970,
23 '71, which formed the basis of this rule that ammonia
24 discharge --

1 MS. WILLIAMS: I object to the characterization
2 that any particular study formed the basis of this rule.
3 I don't think that's --

4 Q I will withdraw that part of it. I think if
5 you read the Board's opinion, you will find that out.
6 But in any case, are you aware of studies done by the
7 Illinois State Water Survey prior to 1971 that the
8 ammonia discharges from point sources cause depletion of
9 dissolved oxygen in the Illinois River?

10 A I may have seen studies like that, but I
11 don't remember details. So I'll have to say I'm not
12 very familiar with that, no.

13 Q Are you aware that the study was recanted by
14 Dr. Evans and Mr. Butts?

15 A No, I'm not aware of that.

16 MR. KISSEL: That's all I have got.

17 HEARING OFFICER HALLORAN: Thank you, Mr. Kissel.

18 Ms. Williams, any redirect?

19 MS. WILLIAMS: I don't think I have anything for
20 redirect.

21 HEARING OFFICER HALLORAN: Thank you, Mr. Mosher.

22 (Whereupon, a recess was taken.)

23 HEARING OFFICER HALLORAN: Ms. Williams will call
24 her second witness.

1 MS. WILLIAMS: I would like to call Rick Pinneo.

2 (Witness sworn.)

3 RICHARD PINNEO,

4 called as a witness, after being first duly sworn, was

5 examined and testified upon his oath as follows:

6 DIRECT EXAMINATION

7 BY MS. WILLIAMS:

8 Q Would you please state your name and

9 occupation for the record?

10 A My name is Richard Pinneo. My occupation is

11 Environmental Protection Engineer for the Illinois

12 Environmental Protection Agency Division of Water

13 Pollution Control Permit Section Industrial Unit.

14 Q How long have you held this position?

15 A I have been working at the Agency in that

16 same position since September of 1984.

17 Q What do your duties consist of?

18 A My duties consist of reviewing permit

19 applications and writing permits for construction

20 activities, operating permits such as state operating

21 permits for indirect dischargers and NPDES permits for

22 direct dischargers.

23 Q Can you briefly describe your educational

24 background?

1 A I have a bachelor of science from the
2 University of Illinois in chemical engineering.

3 Q Do you hold any additional degrees or
4 licenses or certifications?

5 A I am a licensed professional engineer.

6 Q What are your specific duties related to the
7 Noveon-Henry plant?

8 A My specific duties have included issuance of
9 construction permits for treatment units and issuing
10 NPDES permits, reviewing permit applications and
11 determining the applicability of the regulations and how
12 they apply and what should be placed within an NPDES
13 permit.

14 Q When did you first write a permit for that
15 facility?

16 A In 1984 was when I was originally assigned
17 that facility and issued a permit in 1985.

18 Q Is that the permit the facility operates
19 under today?

20 A It's the permit that was prior to the 1991
21 permit, and I would assume that the portions of the 1991
22 permit that were appealed would revert back to the 1985
23 permit.

24 Q Have you written all the Bureau's water

1 permits for that facility since that time since 1985?

2 A Yes. Yes, I have.

3 Q As you know, several of those conditions in
4 that permit were appealed and I would like to go through
5 three of those issues with you one at a time. First
6 starting with what we call the OCPSF requirements. Can
7 you tell us what is meant by these requirements in
8 relation to Noveon's 1990 permit?

9 A The organic chemical plastic and synthetic
10 fiber regulations were promulgated by U.S. EPA in 1987.
11 Those regulations provided a guidance document along
12 with it, and the regulations prescribe monitoring
13 requirements for a number of pollutant parameters and
14 limitations as well and how to derive limitations.

15 Q I would like to show you what I have marked
16 as Illinois EPA Exhibit Number 3 for identification.
17 Are those the regulations you are referring to?

18 A Yes, they are.

19 MS. WILLIAMS: I would like to offer them as
20 admitted into evidence if you don't have any objection.

21 MR. KISSEL: No objection.

22 HEARING OFFICER HALLORAN: IEPA Exhibit Number 3 is
23 admitted.

24 Q So these regs are the legal requirement that

1 the OCPSF conditions in Noveon's permit are based on?

2 A Yes, they are.

3 Q Did you also mention that there was a
4 guidance document?

5 A Yes. There is a guidance document provided
6 by U.S. EPA. That document goes through and identifies
7 how the regulation was developed, the technologies that
8 were considered for different types of limitations such
9 as best conventional technology, BCT; best available
10 technology, BAT; and best -- I forget, but best
11 something or other, BPT. And it also identifies or
12 assists permit writers in what should be utilized in
13 determining limitations.

14 Q Are you aware that Petitioner argues you used
15 incorrect flow values in calculating the limits in this
16 permit?

17 A Yes, I am aware of that.

18 Q Can you explain what flow values you used and
19 why?

20 A The flow value that I utilized was considered
21 process wastewater flows on a monthly average basis. In
22 the development document, it identified that the average
23 flow or annual average flow should be utilized in
24 determining both mass -- monthly average mass limits and

1 daily maximum mass limits.

2 Q Where did you obtain the figures that you
3 used for flow?

4 A The figures that I utilized were directly off
5 of the 1987 -- or 1989 permit application that was
6 provided by Noveon at that point in time.

7 Q I'm handing you a document that I have marked
8 Illinois EPA Exhibit 4 for identification. Can you
9 identify that document?

10 A Yes. It's the cover page and a few excerpt
11 pages of the development document that was produced from
12 the OCPSF regulations. And on page --

13 Q You can take a minute to look through it if
14 you want.

15 (Pause in proceedings.)

16 A On page 910, the bottom paragraph, it states
17 that the permit writer would then use the plant's annual
18 average processed wastewater flow to convert the
19 concentration-based limitations into mass based
20 limitations. It does not differentiate between average
21 or maximum mass limits.

22 Q Now did you technically use an annual
23 average?

24 A I believe that the average that I utilized

1 was probably a monthly average, not an annual average
2 flow.

3 Q Do you agree with Petitioner that the maximum
4 flow values should have been used rather than average?

5 A No. The guidance document specifically
6 prohibits that.

7 Q Are you aware of any other federal guidelines
8 or regulations that support this interpretation?

9 A The guidance document was supplemented in a
10 subsequent rule that was promulgated in 1993. And that
11 specific rule does identify that the long-term average
12 flows should be utilized and not necessarily even an
13 annual average flow. And that it should be utilized for
14 both average and maximum limitations.

15 Q Can you tell us what impact using the longer
16 term average rather than a shorter term would have on
17 the final limits that were imposed?

18 A The limits more than likely would be reduced
19 because a long-term average flow takes into account the
20 variations in flows that are experienced by a facility.

21 Q Another issue of dispute in the permit is
22 whether only mass-based limitations should have been
23 used. Can you tell us what type of limitations were
24 used in the permit?

1 A The types of limitations that were issued in
2 the permit were mass-based limits and
3 concentration-based limits. The mass-based limits were
4 developed utilizing the average flow times, the
5 conversion factor, times the concentration limit that
6 was developed by U.S. EPA and identified in that
7 regulation. The concentration-based limits were placed
8 in the permit not only for ease of determining
9 compliance with those limitations, but also were put in
10 place because of a best professional judgment type
11 situation. The regulation doesn't stipulate that the
12 concentration limit should be placed in the permit. But
13 for the reason of determining compliance and the ease of
14 using concentration-based limits to determine
15 compliance, those concentration-based limits were placed
16 in the permit.

17 MS. WILLIAMS: At this time can I go back and ask
18 whether you have an objection to admitting Exhibit 4
19 into evidence?

20 HEARING OFFICER HALLORAN: Yeah. You can offer it
21 and ask for it to be admitted.

22 Mr. Kissel, do you have an objection?

23 MS. WILLIAMS: It's portions of the guidance
24 document.

1 MR. KISSEL: No.

2 HEARING OFFICER HALLORAN: Respondent's Exhibit
3 Number 4 is admitted.

4 MS. WILLIAMS: Thank you.

5 Q Can you tell us what you looked to as far as
6 regulations for defining best professional judgment and
7 when that comes into play?

8 A Best professional judgment is something that
9 is utilized when a limitation isn't necessarily
10 prescribed, but then you determine that the limitation
11 should be placed in the permit or that a limit should be
12 placed in the permit. This is allowed under 40CFR125.3
13 and also under Illinois Regulations, 35 Illinois
14 Administrative Code, section 309.1403, where both mass
15 and concentration limits can be identified in a permit.

16 Q Are there any other guidance-type documents
17 that you would look to for that determination?

18 A The permit writer's manual identifies BPJ,
19 best professional judgment, as a tool that should be
20 considered by permit writers when a specific limitation
21 isn't identified in a regulation for a facility.

22 Q I would like to show you what I have marked
23 as Illinois EPA Exhibit 5 for identification. Can you
24 identify this document for us?

1 A This is an excerpt from the permit writer's
2 manual. It talks about mass versus concentration
3 limits. And also about best professional judgment.

4 Q Who puts out this manual?

5 A This would be U.S. EPA.

6 MS. WILLIAMS: At this time I would like to move to
7 have Exhibit 5 entered into evidence.

8 MR. KISSEL: No objection.

9 HEARING OFFICER HALLORAN: Respondent's Exhibit
10 Number 5 is admitted.

11 Q Rick, can you tell us whether the mass
12 limitations or the concentration limitations in Noveon's
13 permit, which of the two are more restrictive?

14 A The mass limitations would be more
15 restrictive because they utilize the flow value that's
16 more reflective of the processed flow itself, where the
17 concentration limitation is on the entire effluent. The
18 concentration limitations were not adjusted to reflect
19 that there are nonprocessed flows that are -- that could
20 potentially dilute the processed waste streams.

21 Q I would like to talk about the second
22 objection to your 1990 permit. In that regard the
23 requirement regarding a separation of outfalls 001 from
24 001A, this was also a new requirement in the 1990

1 permit, correct?

2 A Yes, it is.

3 Q Can you tell me what you base that on?

4 A I base that on the dilution rule under 35
5 Illinois Administrative Code, section 304.102, where it
6 specifically prohibits the dilution of a waste stream to
7 meet limitations and it also prescribes in there that
8 the monitoring of an effluent should be done prior to
9 mixture with any other waste stream to prevent an
10 artificially low number and showing compliance with an
11 effluent limitation because of that dilution.

12 Q I would like to show you now what I have
13 marked as IEPA Exhibit 6. Is this the regulation you
14 are referring to?

15 A Yes, it is.

16 Q Would you mind reading for us the part of
17 this regulation that specifically deals with the
18 separation outfalls?

19 A That would be section 304.102, paragraph B.
20 And it states, "In any case measurement of contaminant
21 concentrations to determine compliance with the effluent
22 standard shall be made at the point immediately
23 following the final treatment process and before mixture
24 with other waters, unless another point is designated by

1 the Agency in an individual permit after consideration
2 of the elements contained in this section. If
3 necessary, the concentrations so measured shall be
4 recomputed to exclude the effect of any dilution that is
5 improper under this section."

6 MS. WILLIAMS: Now prior to the 1990
7 permit -- actually, can I just ask to have this exhibit
8 admitted into evidence as a regulation?

9 MR. KISSEL: As long as it's represented as being a
10 true and correct copy of the regulation at that point.

11 HEARING OFFICER HALLORAN: Respondent's Exhibit
12 Number 6 is admitted.

13 Q Can you just explain for us, Rick, what
14 changed in the 1990 permit and why?

15 A Well, I learned that there was an effluent
16 that was being directed past treatment and discharged
17 into the outfall structure, and I didn't know of that in
18 the past.

19 Q How did you become aware of that?

20 A I took a plant visit and viewed the discharge
21 and asked what it was and was told that it was boiler
22 water blow down and cooling waters, storm waters, water
23 treatment waste, and I was under the impression that
24 that particular waste stream was all being directed to

1 the wastewater treatment plant.

2 MR. KISSEL: I would like to strike the testimony
3 about what he was under the impression about. I mean,
4 he testifies as to facts not impressions.

5 HEARING OFFICER HALLORAN: Ms. Williams? Can --

6 MS. WILLIAMS: Can I ask you to clarify, Rick, what
7 you saw or you can clarify what you saw. I don't have a
8 problem with that.

9 HEARING OFFICER HALLORAN: Okay. Mr. Kissel's
10 objection is granted. The former answer is stricken.
11 Ms. Williams, if you could rephrase.

12 MS. WILLIAMS: How much of it's stricken? Like
13 back to when I first said, Well what did you -- I mean,
14 I think he described physically what he saw. Were you
15 okay with that part?

16 MR. KISSEL: I have no problem with what he saw.

17 THE WITNESS: Can I redescribe that answer, then?
18 As compared to the 1985 permit there was a diagram that
19 was in that application that did not show that
20 particular waste stream to be discharged around the
21 wastewater treatment plant, thus not being provided any
22 kind of treatment.

23 Q Thank you, Rick.

24 Is it your opinion that Noveon is using the

1 best degree of treatment as described in 304.102?

2 A For that particular waste stream, I don't
3 have any clue, because we do not have any data on it.

4 MR. KISSEL: I'm going to object to the question
5 and answer on the basis that that testimony is already
6 in this record. Mr. Kluge, who at the time of the
7 original hearing was Mr. Pinneo's boss and head of the
8 industrial permit section, testified for all purposes
9 except for ammonia. BF Goodrich then, Noveon now, was
10 employing the best degree of treatment at the facility.
11 That is in the record, under oath; and I think it is
12 inappropriate for a change in that without a substantial
13 change -- discussion as to why that change is here. So
14 I would object to the question and the answer.

15 HEARING OFFICER HALLORAN: Ms. Williams?

16 MS. WILLIAMS: Well, Mr. Kluge wasn't the one that
17 wrote the permit. He wasn't the one that visited the
18 facility, and he is not here today.

19 MR. KISSEL: It's a judicial admission. I mean,
20 they admitted that we are only dealing with what existed
21 at the time, Mr. Hearing Officer. That's what she wants
22 to do here, and we are certainly going along with that.
23 That is in the record.

24 MS. WILLIAMS: Mr. Kluge's testimony is in the

1 record. Mr. Pinneo's testimony under direct examination
2 is in the record.

3 MR. KISSEL: You mean to tell me that -- what's
4 happening here, Mr. Hearing Officer, is that a person
5 that is employed is contradicting the testimony of his
6 manager; is that what we are talking about?

7 MS. WILLIAMS: What page of the testimony are we
8 talking about?

9 MR. KISSEL: It's under Mr. Kluge's testimony.

10 MS. WILLIAMS: I mean, there is obviously thousands
11 of pages of documents in this case.

12 MR. KISSEL: It's not documents. It's oral
13 testimony under oath.

14 MS. WILLIAMS: I would be happy to move on.

15 HEARING OFFICER HALLORAN: Mr. Kissel's objection
16 is sustained.

17 MS. WILLIAMS: You are not saying, though, that
18 that testimony was for the investigative treatment for
19 ammonia, are you?

20 MR. LATHAM: No. He said everything but.

21 MS. WILLIAMS: For everything but ammonia.

22 Q I would like to talk to you now about the
23 applicability of the ammonia effluent limit requirements
24 in their 1990 permit. But first, before we get to the

1 1990 permit, I would like to talk about the 1984 permit.

2 Does that permit contain ammonia limitations?

3 A No, it did not.

4 Q Do you know why not?

5 A Well, I examined the application, noticed
6 that the ammonia effluent concentrations were at around
7 34 milligrams per liter as a daily maximum value. I
8 examined previous permit applications and also looked at
9 what other permit writers did in that situation, and the
10 ammonia levels didn't really seem to be out of line with
11 what was in the previous permits. And so I wrote a
12 permit without ammonia limits in it.

13 Q Did you question the decision made by the
14 prior permit writers at that time?

15 A No, I did not.

16 Q Why not?

17 A Well, I didn't have any reason to believe
18 that their prior decisions were invalid.

19 Q So what was different about your review of
20 the 1999 permit application?

21 MR. KISSEL: 19 what?

22 Q 1989. I'm sorry.

23 A The 1989 application had ammonia
24 concentrations in the effluent that were quite a bit

1 higher. I believe the daily maximum value that was
2 identified in that permit application was 230 milligrams
3 per liter which is almost 200 milligrams per liter
4 higher than what was in the previous permit.

5 Q What did this jump in ammonia levels cause
6 you to do differently?

7 A It made me consider restricting ammonia
8 discharges in the permit.

9 Q And what regulation did you look to to do
10 that?

11 A The effluent limitation contained in 35
12 Illinois Administrative Code section 304.122b.

13 Q Were there any other internal memos or
14 guidelines that you used to support that?

15 A There was a memo from Toby Frevert that
16 identified that the section 304.122b should be applied
17 in this particular case.

18 Q That memo is already a part of the permit
19 record in this case, correct?

20 A Yes, it is.

21 Q Were you able to find any information in the
22 Agency files to explain why an ammonia effluent limit
23 hadn't been included previously?

24 A There wasn't any explanation in the previous

1 permit applications or review notes or anything else
2 that I have seen that would explain why there were no
3 other limitations placed in the permit.

4 Q Isn't it true that at one time, it was one
5 time expressed as a draft limit included in the permit
6 limitation for ammonia in it?

7 A That is correct, yes.

8 Q When was that?

9 A That was in 1977.

10 Q Could you tell what regulation that limit was
11 based on?

12 A That regulation was the 304.122b, the 1977
13 permit application for a permit, draft permit, did have
14 a load limit based on the three milligrams per liter,
15 ammonia limit as identified in that particular rule.

16 Q Were you able to find any evidence in the
17 Agency's records that a determination was made and that
18 provision did not apply to Noveon?

19 A There was no evidence in any kind of review
20 notes or notes of meetings or anything else.

21 Q But Noveon has testified that they always
22 discharge greater than 100 pounds of ammonia per day,
23 correct?

24 A Well, that application was received by U.S.

1 EPA. It was prior to delegation of the NPDES permitting
2 and there was a cover to that that identified what types
3 of parameters should be placed in the permit. Ammonia
4 was listed as one of them. And they identified that a
5 load limit of 45 pounds be applied. I believe the load
6 limit that Illinois EPA applied was something like 35.7
7 pounds. And based on that poundage and the flow rates
8 that were utilized to determine it, the three milligram
9 per liter concentration was utilized in determining
10 that.

11 Q Let's talk about the actual language of
12 304.122b for a minute.

13 Do you agree with Mr. Flippin's testimony
14 that of these two provisions, that subsection A applies
15 to the petitioner's facility?

16 A No, I do not.

17 Q Can you tell us why?

18 A Well, I believe that in all cases you should
19 be able to calculate a PE value of a waste stream and
20 that the issue of whether a waste stream is comparable
21 or not I think is the key factor in which the rule
22 should apply. The facility has a particular type of
23 waste stream that just is not comparable to a municipal
24 waste stream and to calculate a PE value which, like I

1 said, I think you can calculate a PE value for any waste
2 stream, is just totally meaningless. Numbers just --

3 Q Can you give us some examples of why you feel
4 a PE would be meaningless for this facility?

5 A Well, the COD to BOD ratio of normal
6 municipal waste ranges from one and a quarter to two and
7 a half to one. That would be the ratio between BOD
8 and -- or between COD and BOD for municipal waste. BF
9 Goodrich's or Noveon's COD to BOD ratio is more in tune
10 to around six to one. That's an indication that the
11 wastewater is certainly not similar at all to municipal
12 waste and that particular indicator would mean that the
13 waste is not as degradable as a municipal waste.

14 Q What does that mean, "not as degradable"?
15 Can you explain that for us a little bit?

16 A Well, the oxygen requirements would
17 be -- would tend to be higher for a high COD waste to
18 get a comparable removal rate.

19 Q Mr. Flippin talked a little bit about the
20 inhibitors to BOD degradation in his testimony. Can you
21 explain how that relates to a municipal?

22 A Well, BOD at a municipal waste -- or the BOD
23 test itself, if you would take a look at that, utilizes
24 biological media. And that biological media consumes a

1 waste and utilizes oxygen in doing that. In this
2 particular instance an inhibitory compound would tend to
3 reduce a BOD level that would be identified in the BOD
4 test.

5 Q Are you saying it makes the BOD appear lower?

6 A Well, as compared to a municipal waste
7 stream, the -- if you had a waste that was in the same
8 BOD to COD ratio as what a municipal waste would be,
9 yes, the BOD is essentially lower because it's not as
10 degradable and it causes inhibition to the BOD test
11 itself.

12 Q Thanks, Rick. Can you describe for us,
13 briefly, what U.S. EPA's role is in the NPDES permitting
14 process?

15 A I'm sorry?

16 Q Can you describe what U.S. EPA's role is in
17 the NPDES permitting process, where they come into play
18 procedurally?

19 A The U.S. EPA provides an oversight of our
20 program and reviews the NPDES permits that we issue.
21 U.S. EPA will provide a recommendation during the notice
22 periods of the permit, draft permit.

23 Q Do you know if they looked at this draft
24 permit, the draft of the permit we are talking about

1 today?

2 A Yes, they did.

3 Q Do you recall if they had any objections?

4 MR. KISSEL: I'm going to object to it as hearsay.

5 The EPA is not here to be cross-examined.

6 HEARING OFFICER HALLORAN: Ms. Williams?

7 MS. WILLIAMS: It's in the record.

8 MR. KISSEL: I don't care whether it's in the
9 record or not; it's still hearsay. The EPA is not here.
10 How can I examine somebody that's not here?

11 Q If this permit were remanded to the Agency
12 without an ammonia effluent limit in it, would U.S. EPA
13 have to look at that permit then again and go through
14 that process again?

15 A Yes.

16 HEARING OFFICER HALLORAN: I didn't rule on
17 Mr. Kissel's objection. I was going to overrule it
18 because we have a little more lax evidentiary rules in
19 these administrative type proceedings. So whatever your
20 question was before.

21 Q I felt I could rephrase it with pretty much
22 the same --

23 HEARING OFFICER HALLORAN: Okay. And I'm looking,
24 Mr. Kissel, at section 101.626a is the basis of my

1 ruling. In any event --

2 Q Do you know if U.S. EPA had any objections or
3 not to this permit?

4 A They identified that ammonia should be placed
5 in the permit or that should be retained in the permit.

6 MS. WILLIAMS: I think that's all I have.

7 HEARING OFFICER HALLORAN: Thank you.

8 Mr. Kissel.

9 CROSS-EXAMINATION

10 BY MR. KISSEL:

11 Q Let's talk about section 304.122. You know
12 what that is, right?

13 A Yes.

14 Q And you gave us your interpretation of the
15 rule. What documents, memos, Board opinions, what did
16 you look at to come to your conclusion as to what that
17 rule means?

18 A I looked at the rule itself in that I
19 just -- I can't think of an example.

20 Q You looked at the rule itself?

21 A I looked at the rule itself.

22 Q So your interpretation of the rule is based
23 upon the language of the rule; is that right?

24 A Yes.

1 Q And nothing else?

2 A That's correct, yes.

3 Q With regard to that rule, let's look
4 particularly at 122a. Do you know that rule or do you
5 have to have it before you?

6 A No. I know that rule.

7 Q It talks about 50,000 or more population
8 equivalents, correct?

9 A Yes.

10 Q In your opinion does the untreated waste load
11 from the Noveon facility exceed 50,000 or more
12 population equivalents?

13 MS. WILLIAMS: I want to object to some extent of
14 the relevance. I don't necessarily have a problem if he
15 wants to give his opinion, but I do feel that
16 whether -- the question for the Board is whether A or B
17 applies. If it's determined that A would apply by the
18 Board, then it becomes a factual question of whether
19 they do or do not meet the threshold, but that's really
20 not what we are here to decide today.

21 HEARING OFFICER HALLORAN: You know, I think I'm
22 going to overrule your objection. He may answer if he's
23 able.

24 MS. WILLIAMS: That's fine.

1 A I believe that it does exceed 50,000.

2 Q What's the basis of that?

3 A The basis of that is material that has been
4 submitted to the Agency after the 1991 permit.

5 MR. KISSEL: Well, I move to strike that. We are
6 talking now --

7 MS. WILLIAMS: I just want to object again because
8 the question hasn't been raised whether he asked himself
9 that question in 1991. If we are going to stick to --

10 MR. KISSEL: This whole proceeding we are doing in
11 1991. Hopefully, he has been here and he understands
12 that.

13 MS. WILLIAMS: Then maybe the question should be
14 asked whether he had an opinion in 1991.

15 THE WITNESS: In 1991?

16 HEARING OFFICER HALLORAN: You may answer.

17 A I didn't have any information to compute
18 that, any credible information to compute that.

19 Q Did you hear Mr. Flippin's testimony with
20 regard to documents that are in this record and that
21 were with the Agency which detailed various things with
22 regard to BOD, flow and solids?

23 A Oh, yes, I did.

24 Q Were you aware of those documents?

1 A I looked at every one of them.

2 Q Did he properly calculate the PE based upon
3 those documents?

4 A He properly calculated the PE, but --

5 Q That's my question. Did he or did he not?

6 A Yes, he did.

7 Q 122b, the language of the rule, "Is sources
8 discharging to any of the above waters and whose
9 untreated waste load cannot be computed on a population
10 equivalent comparable to that for municipal waste
11 treatment plants." What, in your opinion, does the
12 phrase "comparable to that used for municipal waste
13 treatment plants" modify?

14 A I'm not sure of your question here, Dick.

15 Q Well, when I look at this rule it is
16 consistent with what you testified to. This rule to me
17 says that if you can compute a population equivalent
18 like you can for a municipal plant, then this rule is
19 applicable, then you can do that.

20 A And that's where I believe that we differ in
21 that I believe that you can always calculate a PE, and
22 so why would the Board write a rule saying if you can't
23 when it always can.

24 Q That's not the issue before the Board, is it?

1 The issue before the Board is what does this -- what is
2 the plain language of this rule? If you just looked at
3 the plain language of this rule, doesn't the word
4 "comparable" for that used by municipal waste treatment
5 plants modify the term "population equivalent basis,"
6 doesn't it?

7 A I'm not sure what you mean by "modify," Dick.

8 Q Modify is -- do you know what a modifier is,
9 a modifying phrase?

10 A I'm not an English student, Dick; I'm just a
11 simple engineer.

12 Q For the Board to have intended what you said,
13 wouldn't they have said whose untreated waste load is
14 not comparable to a municipal waste facility. That's
15 what they would have said, isn't it? Isn't it?

16 A I can't explain what the Board --

17 HEARING OFFICER HALLORAN: Ms. Williams?

18 MS. WILLIAMS: I was just going to object. I mean
19 he can testify to what he knows and what he has read,
20 but --

21 MR. KISSEL: Well, I think it's perfectly
22 reasonable if someone is relying totally on the
23 construction or the language in the rule to ask him how
24 it could have really been clearer -- or clear, not

1 clearer, to meet his interpretation.

2 HEARING OFFICER HALLORAN: I sustain Ms. Williams'
3 objection. It's speculative, conjecture, any number of
4 things, but it's sustained.

5 Q Is there any mention in any Board proceedings
6 or any Agency documents or anything you reviewed with
7 regard to this rule that deals with the COD, BOD ratio?

8 A No.

9 Q That's of your own making; is that correct?
10 You made that -- you brought that into this, right?

11 A It was one of the things that I utilized to
12 make a determination as to whether or not these waste
13 streams are comparable to municipal waste, yes.

14 Q But you are the one that brought it in, not
15 someone else, not an outside agency of some kind. You
16 personally did that?

17 A Sure. Yeah.

18 Q How do you define a municipal waste? What is
19 a municipal waste as you understand it in this
20 regulation?

21 A A municipal waste is generally a waste that
22 is generated from household, commercial and
23 industrial-type facilities and that there is generally a
24 a fair amount of domestic-type waste that is put into

1 the sewer system. And that would be considered
2 municipal waste.

3 Q Municipal waste treatment plant waste must
4 have municipal waste in it; otherwise it's not a
5 municipal waste treatment. That's what you are saying;
6 is that correct? Is that right? It has to be all
7 municipal, 50 percent municipal, 20 percent municipal,
8 what?

9 MS. WILLIAMS: I object. I think he used the term
10 domestic.

11 Q Well, domestic. What does it have to be, 25
12 percent domestic, 5 percent domestic, 30 percent
13 domestic?

14 A I think that is dependent upon a POTW. But,
15 typically, you're going to have a majority of the waste
16 as what would be considered domestic waste.

17 Q 90 percent, 80 percent, what?

18 A I don't know a specific number.

19 Q What is the BOD for municipal waste?

20 A The BOD for municipal waste --

21 Q Influent?

22 A -- typically is between 100 to 200 milligrams
23 per liter.

24 Q What about the suspended solids?

1 A That would typically range between around the
2 same figures, maybe a little higher to 250 on the high
3 end.

4 Q So, if I understand your testimony correctly,
5 any waste, whether it's municipal or not, that does not
6 have a BOD of around 100 to 150 and a suspended solids
7 around 150 or 200 is not comparable to a municipal
8 waste; is that right?

9 A I guess you can stretch it that way.

10 Q I'm not trying to stretch it. I'm trying to
11 draw your testimony together, knit it together so we can
12 figure out what went through your mind and what goes
13 through your mind when you interpret this rule. Was I
14 correct in what I said?

15 A Actually, no. No, I don't think so, Dick.

16 Q Then how is it incorrect?

17 A Because there are waste streams such as that
18 from a meat slaughtering facility or a meat packing
19 facility that have high BOD and suspended solids
20 associated with that waste stream, but the degradability
21 is similar to that of a municipal waste stream.

22 Q Now if I understand what your testimony is,
23 now it's not what the concentration is of BOD and
24 suspended solids and their relationship to each other,

1 but rather whether it's biodegradable or not as a
2 municipal. Is that what you are testifying to?

3 A The rate at which biodegradability occurs is,
4 I guess, what I said, yes.

5 Q So that -- again, just to make sure, you can
6 have a thousand parts per million of BOD as long as it's
7 degradable; then it's comparable to a municipal waste;
8 is that correct?

9 A I would say that, yes.

10 Q And that's how you interpret this rule --

11 A Yes.

12 Q -- 304.123?

13 And your determination of lack of
14 degradability is the BOD, COD ratio?

15 A That's correct, yes.

16 Q And your only basis for doing that -- that's
17 the only basis you use in determining biodegradability
18 here or lack thereof?

19 A Yes.

20 Q So focusing down to what you now have
21 testified to 122b, when you use -- when the phrase is,
22 "Comparable to that used for municipal waste treatment
23 plants," you are saying it must have a BOD, COD ratio of
24 whatever you have -- you believe you have found in

1 municipal waste treatment plants, that if it does have
2 it, it's comparable. If it doesn't have it, it's not
3 comparable; is that your testimony?

4 A Yes.

5 Q Where do we find -- I'm a person that wants
6 to build a plant. Where do I find that in your rules?
7 Where do I find that position taken by the Agency?

8 A You will not find it.

9 Q So this is basically from your head?

10 MS. WILLIAMS: I would object.

11 Q From your mind, your thoughts, whatever you
12 want to do?

13 HEARING OFFICER HALLORAN: Overruled.

14 A It's from what I would consider what the
15 regulations says.

16 Q It's your thought, though, right?

17 A Yes.

18 Q It's not anybody else's?

19 A No. I think that the majority of the Agency
20 thinks the same way.

21 Q Well, I don't want to bring the majority of
22 the Agency here.

23 A I received a memo from Toby Frevert saying
24 that that particular rule applied.

1 Q And he used the term in that memo, did he
2 not, "industrial"; did he not?

3 A Yes.

4 Q Does the word "industrial" appear in 122b?

5 A No, it does not.

6 Q So is he right or is he wrong when he uses
7 that word?

8 MS. WILLIAMS: I object. I don't understand how --

9 MR. KISSEL: Absolutely. This is the first time in
10 all the times I have been involved that we are now
11 finding that the Frevert memo is one of the bases for
12 his making this judgment, and I think we are entitled to
13 know.

14 MS. WILLIAMS: What do you mean it's the first
15 time? We have always relied on the Frevert memo.

16 HEARING OFFICER HALLORAN: I do believe it's
17 relevant. So I would overrule your objection.

18 MS. WILLIAMS: Could you repeat it?

19 COURT REPORTER: "So is he right or is he wrong
20 when he uses that word?"

21 THE WITNESS: May I take a look at the memo?

22 Q Sure. Do you want to give me a memo?

23 (Whereupon, a recess was taken.)

24 Q Was he right or wrong?

1 A In utilizing the word industrial?

2 Q Yes.

3 A Well, I think that what he was talking about
4 that he believed that 304.122 applied and that he chose
5 B because it was an industrial facility.

6 Q My question is fairly obvious and direct. He
7 uses the word -- he says this: Since both of these
8 facilities -- and that includes Goodrich/Noveon -- are
9 classified as industrial, the applicable ammonia limits
10 are contained in 304.122b. Is he right in his use of
11 the word "industrial"?

12 A I still say that he was making a
13 determination of that and previous history with the use
14 of 304.122b. And that there are no municipalities that
15 are regulated under 304.122b, and believed that
16 industrial facilities are the only -- I believe, that
17 industrial facilities are the only ones that are
18 regulated under 304.122b.

19 Q So is it your testimony that any industrial
20 facility that discharges in excess of 50,000 PE is
21 regulated by this rule if it discharges?

22 A I'm sorry, would you repeat that?

23 Q Is it your testimony, then, that any
24 industrial discharge which discharges more than

1 150 -- more than 50,000 population equivalents to the
2 Illinois River is subject to this ruling?

3 MS. WILLIAMS: Which rule?

4 MR. KISSEL: 304.122

5 MS. WILLIAMS: A or B?

6 MR. KISSEL: B.

7 A The rule applies to industrial facilities if
8 they have over 100 pounds, and you cannot compute a
9 meaningful population equivalent.

10 Q Mr. Pinneo, let's not run around the block
11 here. I'm trying to get you to answer a question very
12 simply about Mr. Frevert's sentence in the April 5th,
13 1989, memo. Was he right or wrong in using the term
14 "industrial"? Yes or no?

15 A I don't think this is a yes or no answer,
16 Dick.

17 Q Did he use the term "industrial"? Was he
18 right? That's simple, very simple.

19 A I think he was right in identifying the rule.
20 Whether he used the right terminology or not --

21 Q He used the wrong terminology; is that
22 correct?

23 A Well --

24 Q There is a witness protection program so you

1 are in good shape if you say your boss was wrong. All
2 you've got to do is say yes or no.

3 A I think that he used the word industrial
4 because he believed that 304.122b applied and that
5 industrial facilities are -- have historically been the
6 only facilities that have had that rule applied to them.

7 MR. KISSEL: Mr. Hearing Officer, I really would
8 like him to answer the question. I think we are
9 entitled to know the answer.

10 HEARING OFFICER HALLORAN: I think it's been asked
11 and answered, and I think I was waiting for an objection
12 by Ms. Williams. But I think he has answered it to the
13 best of his ability. He has stated that it is not a yes
14 or no type answer he can give you. So I deny your
15 request and you can move on.

16 MS. WILLIAMS: Does that mean you want me to object
17 more often, Mr. Hearing Officer?

18 HEARING OFFICER HALLORAN: Well, no.

19 MS. WILLIAMS: Just kidding.

20 Q In the 1980s when you were involved in the
21 1984 permit?

22 A Yes.

23 Q You were involved in that?

24 A Yes.

1 Q Were you aware of the rule 304.122?

2 A Yes.

3 Q You did not apply that, correct?

4 A No, I did not.

5 Q You allowed -- that rule calls for, in your
6 opinion now, a discharge of three milligrams per liter
7 of ammonia; is that correct?

8 A If the discharge is --

9 Q In Noveon's case?

10 A If there is 100 pounds of ammonia being
11 discharged, that's when the three milligrams per
12 liter --

13 Q This is a specific permit now, Mr. Pinneo.
14 In this case you believe that the three milligrams per
15 liter requirement is applicable under 304.122b; is that
16 correct?

17 A Because they discharge more than 100 pounds,
18 yes.

19 Q And that was true in 1984, wasn't it?

20 A It was true on a daily maximum value, but
21 there wasn't any average value provided in the
22 application. I didn't know what the average discharge
23 of ammonia was.

24 Q You couldn't ask the question?

1 MS. WILLIAMS: I think he has already testified he
2 didn't ask that question. So --

3 Q But my question, then, is was that rule
4 applicable in 1984, in your opinion?

5 A I didn't believe that it was.

6 Q And, again, the reason?

7 A Because of the historical nature of the
8 permitting process that the 34 milligrams per liter
9 identified as a maximum value in the application was
10 less than what was identified in other permit
11 applications.

12 Q So if somebody made a mistake before, you
13 just said I will continue that?

14 A I just started working at the Agency at that
15 point in time, Dick. I was just learning the job.

16 Q You mean when you looked at this permit and
17 looked at 34 milligrams per liter in the effluent, that
18 didn't ring any bells in your mind?

19 A As compared to the other permits?

20 Q No. Compared to the permits that you dealt
21 with in municipal, or --

22 A No, it did not.

23 Q So 34 milligrams per liter was an acceptable
24 discharge from that facility?

1 A That's what I believed at that point in time.

2 Q Is it still acceptable if the rule didn't
3 apply?

4 A I can't answer that.

5 Q Why not?

6 A Because I don't make those determinations.

7 Q Well, but you made the determination in 1984,
8 didn't you?

9 A I made the determination that an effluent
10 standard applied, not a water quality criteria.

11 Q Where did you find that effluent standard of
12 34 milligrams per liter?

13 A I didn't. I --

14 Q Made it up?

15 A No. That was --

16 MS. WILLIAMS: Objection. I think the witness is
17 getting confused.

18 A That was a value in the application.

19 Q So if they had put 60, then that's okay?

20 A Again, that's not my determination to make.

21 Q Mr. Pinneo, you know, I like the way you go
22 in and out of when you are making determinations and
23 when you don't. You were the permit writer in 1984 who
24 authorized a permit limitation of 34 milligrams per

1 liter of ammonia; isn't that correct?

2 A No, I did not.

3 Q You did not?

4 A No.

5 Q Who did?

6 A There wasn't a limitation in the permit in
7 1984.

8 Q That meant --

9 A So --

10 Q So that anything could be discharged, any
11 ammonia could be discharged, then, is that correct?

12 A I was basing my decision on the historical
13 value.

14 Q We can shorten this if you answer my
15 question. If you didn't put an ammonia limit in it, it
16 meant that any ammonia limit was acceptable; is that
17 correct?

18 A You mean any ammonia level within their
19 discharge was acceptable? Is that what you are trying
20 to get at?

21 Q Yeah.

22 A It's not a limit. It's not a limit just
23 because it's in an application.

24 Q Well, I know that. You didn't include a

1 limit, though, did you?

2 A I didn't include a permit limit that would be
3 prescribed either by water quality criteria or an
4 effluent criteria. And that's just -- was my
5 determination. And it was based upon what was in other
6 applications and what other permit writers did in 1984.
7 Now in 1989 that was considerably different.

8 Q Why?

9 A Why? Because there is 230 milligrams per
10 liter of ammonia in there.

11 Q So somewhere between 34 and 230 the line is
12 drawn of unacceptability in your mind?

13 A There, again, that's not my determination to
14 be made.

15 Q Who makes it? Mr. Pinneo, you are the guy.
16 You are the man that made this determination.

17 A Bob Mosher would make that determination in
18 the standards unit. And I assume we are still talking
19 about whether 304.122 doesn't apply.

20 Q But it wasn't deemed not to apply in 1984?

21 A In 1977, in 1972, or whatever it was.

22 Q Until 1990, 1991?

23 A Yeah.

24 Q You're the guy. You are the one, aren't you?

1 Maybe I misunderstand your position with the Agency.
2 Aren't you the permit writer here? The one who looks at
3 all the applications and decides whether there is
4 compliance with the water quality standards and the
5 effluent limits?

6 A I'm the one that reviews --

7 Q Are you that person?

8 A Yes.

9 Q Just to go back, I hesitate to do it, but you
10 didn't answer it in my view. In 1984 you made that
11 determination? You sat there. You looked at the
12 application, and you must have said to yourself that 34
13 milligrams per liter of ammonia in the effluent is okay
14 with me.

15 MS. WILLIAMS: I object. He has already testified
16 that he looked at it and based it on prior permits and
17 didn't go beyond that because there wasn't a change.

18 HEARING OFFICER HALLORAN: I've heard it about
19 eight times, Mr. Kissel, and whether he is giving you
20 the answer you desire, I don't think it's going to
21 happen. I think he has answered to the best of his
22 ability and please move on.

23 Q Do you write permits for municipalities?

24 A No, I do not.

1 Q So you don't have any experience in your job
2 as a writer of permits for municipalities; is that
3 correct?

4 A That's correct.

5 Q So when you testified that you know all about
6 this COD, BOD ratio -- didn't you?

7 A It's published information.

8 Q So it's not based upon your experience; it's
9 published in some document?

10 A It's published in the Metcalf and Eddy, the
11 document that was referred to earlier by Houston
12 Flippin, the wastewater treatment text.

13 Q So the Board understands, you don't deal with
14 municipal plants; you don't write permits for them; you
15 have never been involved with one?

16 A I have written permits.

17 Q Oh, you have?

18 A Yeah.

19 Q Where?

20 A At Illinois EPA.

21 Q For municipalities?

22 A I have written permits for them when they had
23 a serious backlog in our municipal unit.

24 Q Over the years how many permits have you

1 written?

2 A MPS permits, probably a couple of hundred.

3 Q At municipal plants?

4 A Yeah.

5 Q Did you deal with the COD, BOD ratio in those
6 plants?

7 A Didn't need to.

8 Q The 1977 draft permit that includes the
9 ammonia-nitrogen effluent limit; do you recall that?

10 A Yes.

11 Q It was not in the subsequent permit, was it?
12 It was not in the issued permit?

13 A It was not, no.

14 Q Where is the Board dilution rule? Do you
15 have that?

16 MS. WILLIAMS: Exhibit 6, I think.

17 Q Mr. Pinneo, you read part of the rule which
18 is part of Illinois Exhibit Number 6. Do you have that
19 in front of you?

20 A Yes.

21 Q You read the first paragraph of subsection A.
22 Can you read the rest of that?

23 A I read part B on that, Dick.

24 Q What does part A say then?

1 A Part A?

2 Q Uh-huh.

3 A States that "Dilution of the effluent from a
4 treatment works or from any wastewater source is not
5 acceptable as a method of treatment of wastes in order
6 to meet the standard set forth in this part. Rather, it
7 shall be the obligation of any person discharging
8 contaminants of any kind to the waters of the state to
9 provide best degree of treatment of wastewater
10 consistent with technological feasibility, economic
11 reasonableness and sound engineering judgment. In
12 making determinations as to what kind of treatment is
13 the best degree of treatment within the meaning of this
14 paragraph any person shall consider the following: What
15 degree of waste reduction can be achieved by process
16 change, improved housekeeping and recovery of individual
17 waste components for reuse, and whether individual
18 processed wastewater streams should be segregated or
19 combined."

20 Q Do I understand that rule to say -- to
21 shorten that -- if you were providing the best degree of
22 treatment you can use streams to mix and dilute; is that
23 correct?

24 A I don't think it's saying that you can use

1 streams to mix and dilute. I think that they are saying
2 that you can combine them and then not have to meet a
3 limitation or have monitoring required before combining.

4 Q If a facility has a stream A which is their
5 processed wastewater and they provide the best degree of
6 treatment on that stream and the stream B is noncontact
7 pooling water, you can mix those two streams under the
8 rule and measure after admixture for determination of
9 compliance with the effluent limitations; is that
10 correct?

11 A I believe that there was a case, Dean Foods,
12 that allowed that.

13 Q Whether the case allowed it or not, that's
14 what the regulatory law is in Illinois; is it not?

15 A Yes, it is.

16 Q So in the case of the BF Goodrich/Noveon
17 facility, if they are providing best degree of treatment
18 for one stream and they add a noncontact cooling water
19 or a discharge from a pond and add it to that stream,
20 are they not entitled to measure after admixture to
21 determine compliance?

22 A I believe that's the case, but --

23 Q All right. Thank you. Do you know or do you
24 agree with the following question and answer? Is the --

1 MS. WILLIAMS: Can you identify what you are
2 reading?

3 MR. KISSEL: Oh, I'm sorry. Sure. Page 1.

4 MS. WILLIAMS: Of what?

5 MR. KISSEL: Of the hearing in this matter, prior
6 testimony of Mr. Kluge.

7 Q "Is the processed wastewater stream at the BF
8 Goodrich facility the best degree of treatment as far as
9 you are concerned? You being the Agency."

10 Answer, "Based upon the information that we
11 have, it represents the best degree of treatment for
12 parameters other than ammonia."

13 Do you agree with that?

14 A Not necessarily.

15 Q You don't. So you are disagreeing with the
16 testimony in this record and your boss at the time?

17 A Sure.

18 Q What's your basis of your disagreement?

19 A Well, I'm not sure that there aren't
20 compounds present in the discharge. I'm not sure if
21 there are other pieces of material or waste pollutants
22 that have been removed to the point where I think that
23 they could be.

24 Q Mr. Pinneo, have you ever designed,

1 constructed or operated a waste treatment facility?

2 A No.

3 Q Have you done any treatability studies of the
4 effluent at the Noveon facility for any parameter?

5 A No.

6 Q Do you have any opinion as to what
7 technology, other than for ammonia, any technology that
8 could be added to that plant that would reduce the
9 effluent concentrations of anything?

10 A Well, there could be some physical treatment
11 such as granular activated carbon that could be added.

12 Q Have you done a study about that? Do you
13 know if it's effective?

14 A I know that there are inhibitory compounds
15 that prevent or reduce biological degradation of the
16 waste itself that can then, if removed by granular
17 activated carbon, can make the overall efficiency --

18 MR. KISSEL: Before we go any further with this,
19 Mr. Hearing Officer, we came into this hearing today
20 with a full understanding that it was the Agency's
21 position, based upon the sworn testimony of a manager of
22 the industrial permit section who was Mr. Pinneo's
23 supervisor at the time, that the testimony he gave was
24 going to be true -- it was true, it was correct, and

1 that the Agency would stand by that testimony. I am
2 sadly disappointed by Mr. Pinneo's testimony which seems
3 to attempt to refute something with really no grounds at
4 all. But I think that I would like the Agency to tell
5 us what their position is. I mean, otherwise, I think
6 we were entitled to -- unless we heard something from
7 the Agency -- that that best degree of treatment is
8 being employed at that facility.

9 MS. WILLIAMS: I don't think the testimony that's
10 been presented is at all inconsistent. Rick has said he
11 doesn't have the information to answer that question
12 because there has been -- I mean, he doesn't have the
13 information. No information has been provided. The
14 Agency thought that that waste was going to the plant
15 and found out it wasn't. There is no other way or
16 information. His answer from Mr. Kluge said, "Based on
17 the information that we have." I don't think those two
18 statements are inconsistent.

19 MR. KISSEL: I disagree.

20 HEARING OFFICER HALLORAN: I don't find them
21 entirely consistent. And I'm not sure what you want me
22 to do at this point. I mean, the record notes and
23 reflects what Mr. Pinneo's testimony is. And the record
24 also has Mr. Kluge's testimony. And, again, I give -- I

1 have full faith and confidence in the Board that they
2 can come to a just decision regardless of, Mr. Kissel,
3 you think it's inconsistent testimony. Your concern is
4 noted.

5 MS. WILLIAMS: We understand that to the extent our
6 testimony appears inconsistent to the Board that impacts
7 its credibility to the Board.

8 MR. KISSEL: One of the things that obviously has
9 to be done is determining the credibility of witnesses.
10 I thought I would raise that at this time.

11 HEARING OFFICER HALLORAN: But, in fact, I think
12 the new rules don't require, per se, but I do make a
13 credibility determination.

14 Q Mr. Pinneo, you separated the outfalls
15 between 001 and 00A; is that correct?

16 A Well, I made an internal outfall.

17 Q That's what I mean, there is two of them now
18 on the permit; is that right?

19 A Yes.

20 Q What is outfall 001A?

21 A That, I believe, is the cooling tower blow
22 down, boiler blow down, lime softening waste and storm
23 water.

24 Q Does that outfall contain any process, the

1 water at all?

2 A It potentially has water that could be
3 regulated because of the storm water.

4 Q Is it treated?

5 A It receives -- it has two different routes to
6 which it can go. And I believe that both of those
7 routes are completely different. One route receives
8 complete treatment through their full wastewater
9 treatment facility, and the other route receives
10 treatment by the use of the sand filtration, an upflow
11 sand filter.

12 Q So it does receive treatment then; is that
13 correct?

14 A It receives varying degrees of treatment
15 depending on which route it's taken.

16 Q It isn't just noncontact cooling water,
17 right?

18 A It isn't just noncontact cooling water. And
19 sand filtration is -- that particular route is the route
20 that I have utilized to have an internal waste stream.

21 MR. KISSEL: That's all I have at this point.

22 HEARING OFFICER HALLORAN: Thank you, Mr. Kissel.

23 Ms. Williams, redirect?

24 MS. WILLIAMS: Just maybe one or two.

1 REDIRECT EXAMINATION

2 BY MS. WILLIAMS:

3 Q You mentioned in your cross-examination that
4 at the time the permit was written you did not have any
5 credible information on which to calculate B. And then,
6 I believe, Mr. Kissel got into some detail. Can you
7 explain for us why you used the word "credible"?

8 A Well, the permit applications for
9 construction of treatment equipment had a PE value for
10 all three parameters to which PE is calculated under the
11 Board rules as exactly the same. That is highly unusual
12 for this type of wastewater. And if you looked at the
13 actual data that was provided in '83, shows that
14 the -- shows that to be the case, that there is not
15 going to be a waste stream like this that has all three
16 PE calculations coming out to be identical.

17 Q But did you have any reason to question the
18 credibility of that information? Was there
19 anything -- any need to question the credibility of the
20 information?

21 A There wasn't any need to question the
22 credibility of that information, and we would not deny a
23 permit application because those particular items are
24 completed incorrectly or inappropriately.

1 MS. WILLIAMS: I think that's all I have.

2 HEARING OFFICER HALLORAN: Thank you, Ms. Williams.

3 Mr. Kissel, recross?

4 MR. KISSEL: Just an area -- no. That's okay.

5 Thank you.

6 HEARING OFFICER HALLORAN: Okay. Thank you,

7 Mr. Pinneo. You may step down. Thank you very much.

8 Any other witnesses, Ms. Williams?

9 MS. WILLIAMS: No.

10 HEARING OFFICER HALLORAN: So you have rested?

11 MS. WILLIAMS: That concludes the Agency's case.

12 HEARING OFFICER HALLORAN: Mr. Kissel, any

13 rebuttal?

14 MR. KISSEL: I might. I need about five minutes.

15 (Whereupon, a recess was taken.)

16 HEARING OFFICER HALLORAN: We are back on the

17 record. Mr. Kissel, Mr. Latham and Ms. Deely have

18 indicated that they have no rebuttal and they have

19 rested their case.

20 With that said, and based on my legal

21 experience, observation and judgment, I find that there

22 are no credibility issues with any of the witnesses that

23 have testified here today. We also discussed off the

24 record a briefing schedule. And the petitioner has

1 stated that they will file a needed waiver based upon
2 the proceeding briefing schedule. We figure the
3 transcript will be ready on March 1st on our web site.
4 And before I forget, our web site is
5 www.ipcb.state.il.us. And you can get on there and
6 print the transcript.

7 In any event, Petitioner's brief, posthearing
8 brief, is due April 15th, 2004. Respondent's brief is
9 due June 1st, 2004. And Petitioner's reply, if any, is
10 due June 30th, 2004. We are going to discuss next week,
11 we will try to get an impromptu telephonic conference
12 going regarding the needed waiver. As I indicated, the
13 petitioner has volunteered to file another waiver as
14 needed.

15 So with that said, any members of the public
16 want to make public comment now or do you want to wait
17 for the adjusted standard hearing? I plan to go into
18 openings and then maybe a witness and then we can take
19 public comment then; I assume that will be 5, 5:30.

20 AUDIENCE MEMBER: I want to make a statement during
21 the adjusted standard.

22 HEARING OFFICER HALLORAN: All right. That sounds
23 like that seems to be the consensus.

24 With that said, do we have closings,

1 Mr. Kissel, or do you reserve?

2 MR. KISSEL: No, we will reserve. We will include
3 that in our --

4 MS. WILLIAMS: That sounds great to me.

5 HEARING OFFICER HALLORAN: Reserve for the
6 posthearing brief?

7 MS. WILLIAMS: Yes.

8 HEARING OFFICER HALLORAN: With that said, this
9 concludes the permit appeal hearing. And shortly -- we
10 will take a -- I don't know if you want to break. We
11 will start with the adjusted standard petition next.
12 Thank you very much.

13

14 (Whereupon, the proceedings concluded
15 at 3:40 p.m.)

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