

1 PRESENT:

2 HEARING TAKEN BEFORE:
3 ILLINOIS POLLUTION CONTROL BOARD
4 1504 Third Avenue
5 Rock Island, Illinois 61201
6 (312) 814-3473
7 BY: MR. JOHN C. KNITTLE

8

9

10 APPEARANCES:

11 GARDNER, CARTON & DOUGLAS
12 BY: ROY M. HARSCH, ESQUIRE
13 Attorney at Law
14 321 North Clark Street
15 Chicago, Illinois 61610-4795
16 (312) 644-3000
17 On Behalf of the Complainant.

18

19 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
20 BY: RICHARD C. WARRINGTON, JR., ESQUIRE
21 Attorney at Law
22 1021 North Grand Avenue East
23 Springfield, Illinois 62794-9276
24 (217) 782-9849
25 On Behalf of the Respondent.

26

27

28 ALSO PRESENT:

29 James E. Huff
30 Robert T. Hawes
31 Dale Howard
32 Edward T. Manning, Jr.
33 Timothy Ridder

Scott L. Kammerman
22 James E. Kammueler
Thomas G. McSwiggin
23 Paul Wesley Rust

24

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1 HEARING OFFICER KNITTLE: Let's go on the record.
2 Hello, my name is John Knittle. I'm a hearing officer
3 with the Illinois Pollution Control Board. I am also
4 the assigned hearing officer for these two cases. PCB
5 Docket Number 2000-73, City of Rock Island versus the
6 IEPA, that is a permit appeal. And we are also here on
7 PCB98164 which is a petition for variance. Both of

8 these hearings were noticed up to commence at 9:30 a.m.
9 today which is March 22nd. We are going to run them
10 consecutively starting with, I take it, Roy, the
11 variance?

12 MR. HARSCH: We would prefer that you do the
13 variance case first. It is probably more comprehensive
14 and was filed first.

15 HEARING OFFICER KNITTLE: Okay. We are going to
16 start off then with the variance, and immediately
17 thereafter we will commence the permit appeal. If any
18 of the members of the public are present and want to
19 testify or provide comments on either case, we will
20 accommodate them; but at this point in time, there are
21 no members of the public present who wish to testify or
22 provide comments. I do note there are two members of
23 the local media here, but they do not, I take it, sir,
24 want to provide any public comments?

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1 (No audible response.)

2 HEARING OFFICER KNITTLE: Both indicate no.

3 Okay. This is, as I have stated, a board

4 proceeding. It was properly noticed pursuant to the
5 board's rules. I am going to run these hearings
6 according to sections 103.202 and 103.203 of the board's
7 procedural rules. Just for the record, I want everyone
8 to know, and I think everyone here does know, I will not
9 be making the ultimate decision on these matters. I am
10 here to rule on evidentiary decisions and provide a
11 clear and concise record for the board in order to
12 enable it to reach an appropriate decision in this
13 matter. The board is comprised of seven members located
14 throughout the state of Illinois.

15 At this point in time, I would like to have
16 the attorneys for each side introduce themselves.

17 MR. HARSCH: Thank you, Mr. Knittle. My name is
18 Roy Harsch with the firm of Gardner, Carton & Douglas;
19 and I represent the City of Rock Island.

20 HEARING OFFICER KNITTLE: Thank you, sir.

21 MR. WARRINGTON: My name is Richard Warrington. I
22 am associate counsel with the Illinois Environmental
23 Protection Agency. I am representing the Illinois EPA.

24 HEARING OFFICER KNITTLE: Thank you. And I did

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1 touch on this, but if any members of the public do come
2 in, we are going to ask them if they want to provide
3 public comment. We are going to ask that they stay
4 until the end of the proceeding and be sworn and subject
5 to cross-examination from both sides. However, if they
6 have a time constraint, we will try to fit that in. As
7 I have said, that doesn't seem to be an issue at this
8 point in time.

9 Are there any motions preliminary to starting
10 the hearing on the variance, which is 2000-73. First,
11 petitioner.

12 MR. HARSCH: No, sir.

13 MR. WARRINGTON: No. I think it is 98-164.

14 MR. HARSCH: Yes. 98-164.

15 HEARING OFFICER KNITTLE: Am I reversed?

16 MR. HARSCH: Yes.

17 HEARING OFFICER KNITTLE: Which one are we doing
18 first?

19 MR. HARSCH: 98-164.

20 HEARING OFFICER KNITTLE: All right. Thank you for
21 the correction.

22 Any there motions preliminary to the beginning of
23 the variance PCB98-164?

24 MR. HARSCH: No, sir.

1 MR. WARRINGTON: No, sir.

2 HEARING OFFICER KNITTLE: Thank you for the
3 correction. Let's move on then. Mr. Harsch, do you
4 have any opening statements?

5 MR. HARSCH: Yes. I have a brief statement I would
6 like to make.

7 As you pointed out, there are two cases
8 currently pending before the Pollution Control Board.
9 The first case was initiated in the spring of 1998 with
10 a filing of a variance petition. That variance petition
11 was subsequently amended in a filing on April 20, 1999.
12 This is a proceeding where the agency has recommended a
13 denial. That recommendation, I think, was filed in
14 November of '99 to the amended variance petition.

15 The other case that you mentioned is an NPDES
16 permit appeal. That NPDES appeal arose during the
17 pendency of the variance request before the board. That
18 is, the agency took final action on the renewal of Rock
19 Island's NPDES permit, I think, on September 14, 1999.
20 And that was the permit issuance that gave rise to the
21 second proceeding. They are interrelated as you will
22 hear.

23 This variance case should be a relatively

24 straightforward case. Rock Island is requesting that

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1 the Pollution Control Board grant Rock Island a variance
2 from what the Illinois Environmental Protection Agency
3 is maintaining is an absolute requirement that it treat
4 a design maximum flow of 16 million gallons per day
5 before it can utilize the main treatment plant combined
6 sewer overflow. That was designated a part of the
7 record as 001A, outfall 001A. In the new permit I think
8 it will be referred to as AO1. It's the same outfall.

9 The IEPA has stated that its basis for its
10 interpretation of this requirement is the combined sewer
11 overflow, or CSO, as you will hear today, relief that
12 was granted by the Pollution Control Board in the case
13 opinion in PCB85214. That is the board's opinion
14 approving the CSO relief that was granted to the City of
15 Rock Island, and that board opinion is set forth as
16 Exhibit 2 to Rock Island's amended variance petition.

17 The petition that was filed that gave rise to
18 that proceeding is set forth as Exhibit 1 to the amended
19 variance petition. And that is a joint petition that
20 was filed on behalf of both the City of Rock Island and

21 the Illinois Environmental Protection Agency.
22 In the CSO proceeding before the board I
23 think it is now clear that Rock Island utilized the
24 historical treatment plant description that its

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1 treatment plant, which had a design average flow rate of
2 8 million gallons per day, and a design maximum flow
3 rate of 16 million gallons per day that has historically
4 existed since the Illinois Environmental Protection
5 Agency issued a permit in 1970 to construct the waste
6 water treatment plant improvements.

7 It should be understood, and I think it is
8 uncontroverted, that this plant was designed, permitted
9 and constructed based upon what existed in 1970 as were
10 the requirements for the sewage treatment plant. And
11 those sewage treatment plant requirements required the
12 design to be based upon design average flow rate, not
13 design maximum flow rate.

14 Throughout the record I think it is clear
15 that Rock Island's original treatment plant was
16 permitted. Permits were applied for based upon the

17 design average flow rate figure. The Illinois
18 Environmental Protection Agency, as was its policy at
19 the time, applied 100 percent peaking factor and
20 described the plant as having an 8 million gallon per
21 day design average flow rate and a 16 million gallon per
22 day design maximum flow rate.

23 At that time that plant might have been
24 capable of meeting those flow figures because there was

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1 first a numerical standard for secondary treatment that
2 was subsequently replaced with a numerical standard of
3 40 milligrams per liter on BOD and 45 milligrams per
4 liter on suspended solids. Those effluent limitations
5 were subsequently replaced after board adoption of
6 revised rules. And the current NPDES permit contains
7 limitations of 20 milligrams per liter and 25 milligrams
8 per liter for BOD and suspended solids.

9 This designation that the plant is an 8/16
10 plant has been used by the Illinois EPA and has been
11 used by Rock Island ever since it was originally applied
12 in 1970. The record and the variance case that you will
13 see today and clearly the record in the permit appeal

14 case will bear that out.

15 Since constructing the treatment plant, Rock
16 Island, as you will hear today from Mr. Hawes, has
17 carried out a series of steps designed to increase the
18 amount of flow that the plant could take without causing
19 a violation of the permit effluent conditions or washing
20 out solids.

21 As Mr. Hawes will explain today with the last
22 improvements that were made in 1977, Rock Island had
23 made all of the improvements that it was aware of that
24 were possible that could improve the amount of flow it

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1 could handle through the plant and still comply with its
2 permit. It did not, however, have the capacity and
3 capability of treating design maximum flow rate of 16
4 MGD; and, accordingly, it began to use the CSO bypass
5 that flows at approximately 12 million gallons per day.

6 As Mr. Hawes will testify, Rock Island hired
7 a consultant, Mr. Jim Huff of Huff & Huff, who carried
8 out an engineering evaluation of the treatment plant to
9 determine which, if any, of the physical units in the

10 plant were the reasons why it couldn't handle flows of
11 up to 16 MGD. And as part of that he evaluated the
12 historical permit record. As you will hear today,
13 Mr. Huff concluded that the secondary clarifiers were
14 limited to 12 million gallons per day as a design
15 maximum flow rate and that it was not possible using the
16 plant to produce an effluent which would meet the permit
17 limitations in excess of 12 million gallons per day.

18 Rock Island notified the Illinois
19 Environmental Protection Agency of the results of the
20 study at a meeting in October of 1997. And subsequent
21 to that meeting, having made a commitment to move
22 forward and construct the necessary improvements to the
23 plant to increase its design maximum flow rate
24 capability, Rock Island asked for assistance from

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1 Illinois EPA in obtaining the necessary relief from what
2 it had been explained to it to be that these were what
3 the agency believed to be the constraints of the CSO
4 board order.

5 It was at that point in time that Rock Island
6 moved forward and filed the current variance petition

7 while it proceeded with its compliance schedule.
8 Evidently, based upon the comments of the agency in
9 recommending a denial of the variance, the Illinois EPA
10 would have the board ignore that the CSO relief granted
11 to Rock Island was based upon a showing that the then
12 existing combined sewer overflow resulted in a minimal
13 environmental impact.

14 They would further have the board ignore that
15 IEPA participated in the key environmental sampling
16 studies that gave rise to that showing and, further,
17 that they joined as a copetitioner with Rock Island in
18 that proceeding. They would also have the board ignore
19 that the board, when it approved the CSO exception
20 relief, made a determination that the then existing
21 combined sewer overflows had a minimal environmental
22 impact on the Mississippi River, and, therefore, the
23 additional treatment was not necessary. All of this
24 occurred, all these demonstrations were made at a time

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1 when Rock Island's plant only had the capability of
2 handling, in fact, 12 million gallons per day before it

3 utilized the CSOs.

4 This is a relatively simple -- should be a
5 relatively simple case. Rock Island is asking the board
6 for a variance from what the agency has said is an
7 absolute requirement that it must treat 16 MGD before it
8 can use the CSO outfall. And Rock Island -- based upon
9 Rock Island's representations in the CSO proceeding,
10 that's not what the proof was in the CSO proceeding, and
11 it's not what the board found. And we don't believe
12 that the 16 MGD should be an absolute requirement; but,
13 as evidenced by the agency's permit decision that's on
14 appeal, they are interpreting it as such.

15 Rock Island could have made a determination
16 simply to ask the agency or the board -- and/or the
17 board to reclassify the plant, but it chose not to. It
18 has chosen instead to move forward to construct the
19 necessary improvements and is doing so. It is for that
20 reason that Rock Island would request that the board
21 grant the requested relief allowing it to utilize its
22 main CSO that flows out -- that are the maximum
23 practical that it can treat, namely 12 MGD, during the
24 time that it moves forward to construct the necessary

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1 improvements to allow it to have the physical capability
2 of treating 16 MGD. Thank you.

3 HEARING OFFICER KNITTLE: Thank you, Mr. Harsch.

4 Mr. Warrington, do you have any opening
5 statements?

6 MR. WARRINGTON: Yes, we do.

7 The purpose of this variance proceeding was
8 to provide a shield against a federal enforcement that
9 has been initiated by the United States Environmental
10 Protection Agency to compel better performance by the
11 Rock Island treatment plant. An element of that federal
12 allegation is that the plant has been repeatedly
13 represented as being able to treat a design maximum flow
14 of 16 million gallons per day before the treatment plant
15 would bypass raw sewage. Representation was made in the
16 initial permit application in 1970. Representation was
17 made as part of the improvements designed in the
18 municipal compliance plan, and representation was made
19 to the board in the combined sewer overflow proceedings.

20 Moreover, the board has to balance the
21 environmental effect of the Rock Island treatment plant.
22 And notwithstanding that the CSO exception found minimal
23 environmental impact, the agency has evidence and will
24 present it today that the current operation of the Rock

1 Island treatment plant results in unacceptable offensive
2 conditions to publicly accessible areas of the
3 Mississippi River. And that is the why the agency has
4 recommended that the board deny the requested variance
5 relief. That concludes my statement.

6 HEARING OFFICER KNITTLE: Thank you, sir.

7 Mr. Harsch, do you want to get started with
8 the case in chief? Call your first witness.

9 MR. HARSCH: Sure. My first witness will be
10 Mr. Bob Hawes. Robert Hawes.

11 HEARING OFFICER KNITTLE: Mr. Hawes, is it? Have a
12 seat right here.

13 (Witness sworn.)

14 ROBERT T. HAWES,
15 called as a witness, after being first duly sworn, was
16 examined and testified upon his oath as follows:

17 DIRECT EXAMINATION

18 BY MR. HARSCH:

19 Q Mr. Hawes, would you please state your full
20 name for the record and where you reside?

21 A Robert Hawes, 4040 25th Avenue, Rock Island,
22 Illinois.

23 Q And, Mr. Hawes, would you please briefly
24 describe your educational and professional background?

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1 A I have a bachelor's degree in civil
2 engineering from the University of Illinois. I have a
3 master's degree in public administration from Northern
4 Illinois University. I am a licensed professional
5 engineer in Illinois and Iowa.

6 Q And what's your current position with the
7 city?

8 A Director of public works.

9 Q How long have you been employed with the City
10 of Rock Island?

11 A I have been employed for almost 20 years.

12 Q What was your initial position with the City
13 of Rock Island?

14 A City engineer.

15 Q As your employment as city engineer and now
16 director of public works, are you familiar with
17 the -- what I have referred to as the combined sewer
18 overflow relief proceeding or the CSO relief proceeding
19 that was initiated by the City of Rock Island and led to

20 the CSO determinations by the board?

21 A Yes.

22 Q Are you familiar and did you participate in

23 the drafting of the petition for exception which is

24 Exhibit 1 to the amended petition for variance filed

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1 with the board?

2 A Yes.

3 Q Are you familiar with the board's opinion

4 entered on May 1986 in PCB85214?

5 A Yes.

6 Q And that's found as Exhibit 2 to the

7 variance -- amended variance petition.

8 MR. HARSCH: Mr. Hearing Officer, I might note that

9 you have advised myself and Mr. Warrington that as far

10 as you are concerned, the variance petition, amended

11 variance petition and the attachments, the

12 recommendation, the amended recommendation and the

13 attachments are included in the record.

14 HEARING OFFICER KNITTLE: That is my understanding,

15 but that was under the assumption that neither side

16 would object to reference to those documents.

17 MR. WARRINGTON: The agency has no objections.

18 HEARING OFFICER KNITTLE: Okay. In that case, yes,

19 we can so note that on the record.

20 BY MR. HARSCH:

21 Q Mr. Hawes, are you familiar with the
22 municipal compliance plan that Rock Island prepared?

23 A Yes.

24 Q Did you participate in preparing that

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1 municipal compliance plan?

2 A Yes.

3 Q Are you familiar with the references set
4 forth in the petition for CSO exception and the
5 municipal compliance program that referred to the Rock
6 Island main sewage treatment as having a design average
7 flow of 8 million gallons per day and a design maximum
8 flow of 16 million gallons per day?

9 A Yes.

10 Q What is your understanding of the basis for
11 that characterization?

12 A I believe it came from the original permit

13 that was issued when the plant was expanded to secondary
14 treatment in the early Seventies.

15 Q In the petition for CSO exception, Rock
16 Island committed to make certain improvements to the
17 sewage -- sewer systems' ability to convey waste
18 materials to the plant and to the sewage treatment
19 plant, did it not?

20 A Yes.

21 Q Did Rock Island fully comply with those
22 conditions?

23 A Yes.

24 Q What was the approximate cost?

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1 A The total cost at that time was about
2 \$165,000.

3 Q Can Rock Island treat today 16 million
4 gallons per day of flow through its treatment plant and
5 still comply with the permit limit?

6 A No.

7 Q Has that problem existed, as far as you are
8 aware, ever since the plant was constructed?

9 A Yes.

10 Q Is it your understanding that in the
11 municipal compliance plan, Rock Island committed to
12 replacing six manually cleaned bar screens with
13 traveling screens?

14 A Yes.

15 Q Was the purpose of that to attempt to
16 increase the amount of flow that was practical to take
17 through the plant before it would have to bypass?

18 A Yes. I guess maybe more so the concern was,
19 at that time, during heavy storms the bar screen began
20 to clog which then reduced the flow that was going
21 through the plant because of the clogging, and the
22 mechanical cleaning device kept the bar screen open,
23 more open, to keep the maximum amount going through.

24 Q Subsequent to those improvements, did Rock

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1 Island make improvements to the solids handling of the
2 treatment plant in an effort to increase the amount of
3 flow it could take through the plant?

4 A Yes. We made a number of improvements both
5 before and after that to try to improve our solids

6 handling capability.

7 Q Did Rock Island receive a violation notice on
8 April 25, 1995, from the Illinois EPA?

9 A Yes.

10 Q If I show you what I have marked as
11 Petitioner's Exhibit 1, is that a copy of that --

12 A Yes.

13 Q -- violation notice?

14 Is it your understanding that that violation
15 notice was predicated on monthly DMRs that Rock Island
16 had transmitted to Illinois EPA?

17 A Yes.

18 Q If I show you what I have marked as
19 Petitioner's Exhibit 2, is that a copy of the monthly
20 DMR excursion slip for the month of February where Rock
21 Island explains the problems it was incurring with TSS?

22 A Yes, it is.

23 Q Did Rock Island respond to the violation
24 notice with a series of letters to the Illinois EPA?

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1 A Yes.

2 Q If I show you what I have marked as
3 Petitioner's Exhibit 3, a letter dated March 9, 1997,
4 and a letter that I have marked Petitioner's Exhibit 4,
5 which is a letter dated May 12, 1997, are these the
6 responses that Rock Island submitted in response to that
7 notice of violation?

8 A Yes.

9 Q Did the Illinois Environmental Protection
10 Agency issue a compliance commitment agreement in
11 response to Rock Island's replies to the violation
12 notice?

13 A Yes.

14 Q I show you what I have marked as Petitioner's
15 Exhibit 5; is that a copy of the compliance commitment
16 agreement?

17 A Yes.

18 Q Did Rock Island fully carry out what it had
19 committed to do that led to the issuance of the
20 compliance commitment agreement?

21 A Yes.

22 Q Based upon these actions briefly explain for
23 the record what Rock Island had committed to and what
24 improvements it made.

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1 A Rock Island committed to installing some new
2 sludge drawing equipment to increase the capacity of the
3 plant to enable it to remove and dry solids particularly
4 during periods of time when the drying beds were
5 inefficient.

6 Q And these were suggestions that Illinois EPA,
7 various Illinois EPA representatives had made over the
8 years to Rock Island?

9 A Yes.

10 Q Apart from this violation notice dated --
11 April 25, 1997, violation notice, has Rock Island ever
12 received any other violation notice or any enforcement
13 action by the Illinois Environmental Protection Agency
14 with respect to the main treatment plant?

15 A No.

16 Q I show you what I have marked as Petitioner's
17 Exhibit 6. Is this a correct copy of a report of
18 noncompliance that Rock Island received -- or
19 compliance -- excuse me -- strike that.

20 Is this a noncompliance advisory letter that
21 Rock Island received from the Illinois Environmental
22 Protection Agency as a result of Mr. Kammuller's
23 February 10th, 1997, inspection?

24 A Yes.

1 Q In this letter the agency raises a number of
2 issues, do they not?

3 A Yes.

4 Q In response to this issuance of Petitioner's
5 Exhibit 6, did Rock Island take any steps towards being
6 in a position to be able to respond to this letter?

7 A Yes. We hired Huff & Huff to do an analysis
8 of the plant to try to determine what the maximum
9 capacity of the plant is today.

10 Q And what was your understanding of the
11 conclusions of Mr. Huff?

12 A Mr. Huff concluded that the secondary
13 clarifiers did not have the capability of treating 16
14 million gallons a day and that flows of approximately 12
15 or over washed solids out of the clarifiers.

16 Q Was this determination made -- the efforts
17 made by the City of Rock Island to hire a consultant and
18 these determinations, made prior to a meeting between
19 representatives of IEPA and Rock Island that was
20 scheduled for October 16, 1997?

21 A Yes.

22 Q Who else attended that October 16, 1997,
23 meeting?

24 A There were representatives of U.S. EPA,

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1 Illinois EPA, our attorneys and the environmental
2 consultants hired by the city.

3 Q That was the first time at which Rock Island
4 was aware that the U.S. EPA was planning to attend the
5 meeting or had any concerns, was their showing up at
6 that meeting; is that correct?

7 A Yes.

8 Q At that meeting can you describe what Rock
9 Island offered the agency in response to the July 2nd,
10 '97, noncompliance advisory letter?

11 A We spent some time going through all of the
12 issues in the letter. And at the end of the meeting,
13 Rock Island agreed to recommend to the city council that
14 the city would go ahead and construct the improvements
15 necessary at the Mill Street plant to increase its
16 capacity to 16 million gallons a day.

17 We agreed to undertake a two-year shoreline
18 inspection program to collect and catalog floatables

19 that were ending up on the shoreline. We agreed to
20 replace the sanitary sewer that runs through Blackhawk
21 State Park. And as I recall, we also agreed to convert
22 the existing storage basins to treatment units.
23 Q And Rock Island was prepared to make those --
24 I mean, that decision was made prior to October 16,

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1 1997?

2 A Yes. That's what we decided to propose.

3 Q Do you recall how the Illinois EPA reacted to
4 that?

5 A My recollection is they were pleased by what
6 we were offering to do.

7 Q Subsequent to that meeting, did Rock Island
8 send any letter to the Illinois EPA documenting what it
9 had agreed to do?

10 A Yes.

11 Q If I show you what is marked as Petitioner
12 Exhibit 7; is that a copy of a letter that Rock Island
13 sent to the EPA that you just referred to?

14 A Yes, it is.

15 Q Did not Rock Island also respond at the
16 October 16, 1997, meeting that it would carry out
17 certain actions with respect to the NPDES permit nine
18 minimum concerned sewer overflow requirements?

19 A Yes.

20 Q Aren't those also discussed in the November 4
21 letter?

22 A Yes.

23 Q Did Rock Island ever receive a response to
24 this letter?

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1 A No.

2 Q Did Rock Island direct its consultants, Huff
3 & Huff, to continue to prepare a preliminary engineering
4 report as committed to at that meeting?

5 A Yes.

6 Q If I show you what I have marked as
7 Petitioner's Exhibit 8, is that a copy of the
8 preliminary engineering report prepared by Huff & Huff?

9 A Yes.

10 Q Is it your understanding that that
11 preliminary engineering report was transmitted to the

12 agency in December of 1997?

13 A Yes.

14 Q This was the first step towards obtaining the
15 necessary permits to be able to build improvements, was
16 it not?

17 A Yes.

18 Q Did Rock Island or its representatives
19 initiate contact with the Illinois Environmental
20 Protection Agency in terms of obtaining relief from the
21 CSO order that you are aware of?

22 A Yes.

23 Q If I show you what I have marked as
24 Petitioner's Exhibit 8, is that a copy of a letter that

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1 I sent to Chuck Gunnarson discussing this?

2 A Yes.

3 Q Is Mr. Gunnarson the agency lawyer who was at
4 the meeting on October --

5 MR. WARRINGTON: Roy, I think the Gunnarson letter
6 is number 9. Eight was Huff & Huff's preliminary
7 report.

8 MR. HARSCH: You're right. Excuse me. You are
9 correct. I stand corrected.

10 BY MR. HARSCH:

11 Q The December 6, 1997, letter to Chuck
12 Gunnarson from myself has been marked as Petitioner
13 Exhibit 9; is that the letter that you referred to?

14 A Yes, it is.

15 Q Are you aware of any response that
16 representatives of Rock Island received or Rock Island
17 may have received in response to this letter?

18 A No. I don't recall any written response.

19 Q Beginning with the submittal to the agency of
20 the Huff & Huff preliminary report which is marked as
21 Petitioner's Exhibit 8, did Rock Island commence a
22 program to construct the necessary improvements to the
23 treatment plant?

24 A Yes.

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1 Q If I draw your attention to the compliance
2 schedule which is set forth in Petitioner's Exhibit 4 to
3 the amended variance petition, is that the schedule that
4 Rock Island has been adhering to?

5 A Yes, it is.

6 Q Is this schedule true and accurate to the
7 best of your knowledge and belief?

8 A Yes, it is.

9 Q Are there any changes that have occurred to
10 the schedule in terms of dates that have come to pass?

11 A The only one that I am aware of is that we
12 were slightly ahead of schedule in a couple of places,
13 and the last item on the compliance schedule says,
14 "construction will be completed October 1 of 2001."

15 The contract that we have underway is
16 currently scheduled to be completed on June 1 of 2001.
17 We are about four months ahead of that schedule.

18 Q As part of that schedule, Rock Island
19 retained a consultant to do the actual design work, did
20 it not?

21 A Yes.

22 Q Who was that consultant?

23 A TRIAD Engineers.

24 Q And when did it solicit -- when did it award

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1 a contract to TRIAD?

2 A Early part of 1998.

3 Q And did TRIAD prepare the -- if I show

4 you -- strike that.

5 If I show you what is marked -- strike that

6 question, please.

7 If I show you what I have marked as

8 Petitioner Exhibit 10 -- sorry -- strike that.

9 MR. HARSCH: I marked the wrong one. Let me have

10 those back. Rich, I will have to make you a copy of

11 this.

12 BY MR. HARSCH:

13 Q If I show you what I have marked as

14 Petitioner Exhibit 10, is that your understanding that

15 this document is the Illinois Environmental Protection

16 Agency approval of the preliminary engineering plan that

17 was put -- preliminary engineering report that was put

18 together by Huff & Huff and submitted in December of

19 '97?

20 A Yes.

21 MR. HARSCH: That's in the record.

22 MR. WARRINGTON: It's in the record somewhere else,

23 too, I think.

24 BY MR. HARSCH:

1 Q If I show you what has been marked as
2 Petitioner Exhibit 11, is that a copy of the preliminary
3 engineering report prepared by TRIAD; is that a correct
4 copy of that?

5 A Yes.

6 Q And this was submitted to the agency as part
7 of the permitting process?

8 A Yes.

9 Q While Rock Island was carrying out the steps
10 in the compliance program that we have been discussing
11 and are set forth in Exhibit 4 to the amended variance
12 petition, did Rock Island also proceed to direct our law
13 firm to prepare a variance petition?

14 A Yes.

15 Q And what was the purpose of that variance
16 petition?

17 A The intent was to allow us to operate
18 legally, and by that I mean allow us to continue to
19 bypass during wet weather at flows lower than 16 million
20 gallons a day until the improvements were constructed.

21 Q That original variance petition was filed in
22 June of 1998, was it not?

23 A Yes.

24 Q And are you familiar, generally, with the

1 Illinois Environmental Protections Agency's variance
2 recommendation that the board deny the variance petition
3 that was filed approximately five months later in
4 November of 1998?

5 A Yes.

6 Q Is it your understanding that one of the
7 agency's main objections was the fact that the
8 compliance plan that was in the original variance
9 petition was conditioned upon obtaining low interest
10 loan money from Illinois EPA?

11 A Yes.

12 Q After receipt of that variance
13 recommendation, did Rock Island have discussions with
14 various representatives of the agency concerning
15 obtaining such a loan commitment?

16 A Yes.

17 Q And what was the outcome of those
18 discussions?

19 A The conclusion was that it was going to take
20 a long time to go through the process to secure that

21 loan and the city council elected to go ahead and
22 finance the improvements locally to get it going.
23 Q And that would have been at a financing rate
24 greater than that which was available under the low

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1 interest loan?

2 A Yeah. We sold general obligation bonds and I
3 would expect the difference in interest rate is probably
4 two or three percent.

5 Q Can you describe the project? When was that
6 decision made?

7 A In the early part of 1999 or late part of
8 1998.

9 Q Was there a conference call on November, I
10 believe, 4th, 1999, that that would have been discussed
11 with the Illinois EPA?

12 A Probably 1998, not 1999. Yes, there was a
13 conference call. I don't remember the exact date.

14 (Discussion off the record.)

15 BY MR. HARSCH:

16 Q Immediately after that decision was
17 communicated to the Illinois Environmental Protection

18 Agency, did you direct my law firm to prepare and amend

19 the petition for variance?

20 A Yes.

21 Q And that's the amended variance petition you

22 have already testified that you were familiar with that

23 was filed with the board on April 20, 1999?

24 A Yes.

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1 Q Can you briefly describe what improvements

2 Rock Island is making to the treatment plant?

3 A We are adding a third clarifier. We are

4 improving the aeration basins to improve their

5 efficiency. We are reconstructing the digestors,

6 putting new roofs and new mixers in the digestors to

7 improve their efficiency.

8 Q Did the original plan call for a replacement

9 of the digestors rather than an upgrading?

10 A I think the original plan may have called for

11 the addition of a digester.

12 Q Has Rock Island taken steps to ensure that

13 the maximum degree of treatment will continue throughout

14 the construction?

15 A Yes.

16 Q Will it be necessary for Rock Island,

17 however, to shut down one of the aeration basins at a

18 time while it refurbishes the diffusers?

19 A Yes.

20 Q Has Rock Island directed that our firm

21 prepare a provisional variance request that would seek

22 relief from the permit limitations while aeration basins

23 are taken down?

24 A Yes.

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1 Q Do you know what the status of that

2 provisional variance request is?

3 A It is pending. I don't know.

4 Q Pending before the Illinois EPA?

5 A Yes.

6 Q What were the estimated costs in

7 1998 -- excuse me, 1985 that were set forth in the

8 petition for CSO relief for total CSO treatment?

9 A Approximately \$55 million.

10 Q What would those costs be in terms of 19--

11 well, I guess, 2000 dollars?

12 A Using an annual inflation rate of 4 percent,

13 it's almost \$100 million.

14 Q That's a standard inflation rate factor?

15 A That's what we assumed for that period of

16 time for construction costs.

17 Q What would be the debt service on \$100

18 million?

19 A Well, for a 20-year bond issue, debt service

20 alone would be almost 9 million a year.

21 Q And do you recall what the operation and

22 maintenance costs were projected in that CSO petition?

23 A I remember it was 6.9 million in 1985

24 dollars.

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1 Q What would those be in -- I keep forgetting

2 we are in 2000 -- 2000 dollars?

3 A Using the same inflation factor, probably 12

4 or 13 million a year.

5 Q What would the impact be on the increase in

6 operation charges of that magnitude and debt service in

7 terms of impact on your repairs?

8 A Well, the total revenue in the sewer fund

9 right now from the rate is about 2.7 million a year.

10 So, if we had to increase that by 20 million to pay

11 those two costs, it would be an increase of 9 or 10

12 times the current rates.

13 Q Can you presently -- can Rock Island

14 presently treat flows in excess of 12 million gallons

15 per day and still comply with the permit conditions?

16 A No.

17 Q Does Rock Island treat the maximum

18 practical amount of flow in a treatment plant before it

19 utilizes any CSO bypass?

20 A Yes.

21 Q When Rock Island determined as a result of

22 the Huff & Huff study that the treatment plant did not

23 have -- was not a 16 MGD plant but instead was a 12 MGD

24 design maximum flow rate plant, why did Rock Island

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1 simply not ask IEPA to rerate the plant or ask the board

2 for relief?

3 A The city council did consider that and

4 concluded that the City had made a commitment, that it
5 was providing an 8, slash, 16 MGD plant and that the
6 City should do that.

7 Q And that was consistent with what you had
8 told the Illinois EPA would be your recommendation at
9 the October '97 meeting?

10 A Yes.

11 Q Are you familiar with the revised -- renewed
12 NPDES permit that was issued Rock Island on September
13 14, '99?

14 A Yes.

15 (Discussion off the record.)

16 BY MR. HARSCH:

17 Q If I show you what I have marked as
18 Petitioner's Exhibit 12, which is a copy of the
19 pleading -- permit appeal filed, I think gave rise to
20 permit appeal case OO73 and attached thereto is a copy,
21 is it not, of the September 14, '99, reissued permit?

22 A Yes.

23 Q Did this permit change -- did the NPDES
24 permit contain a change in the conditions with respect

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1 to the use of outfall, the combined sewer outfall?

2 A Yes.

3 Q And what is your understanding of that
4 change?

5 A All of our old permits indicated that the
6 outfall could not be used until the plant was treating
7 maximum practical flow. This permit puts a hard
8 requirement in that we would have to be treating 16
9 million gallons a day before the CSO overflow can be
10 activated.

11 Q Rock Island had objected and submitted
12 comments to that change, had it not?

13 A Yes.

14 Q In the transmittal letter, which is the
15 September 14, '99, letter to the City of Rock Island
16 Mr. McSwiggin signed and is part of this exhibit, does
17 the agency state why that change was made?

18 A Yeah. The agency says it was requested by
19 the United States EPA.

20 Q I would like you to read into the record,
21 please, the first numbered statement from that letter.

22 A "The language," quote, "treating 16 MGD,"
23 quote, "was requested by the U.S. EPA." And in
24 parentheses it says, "as the definition of," quote,

1 "maximum practical flow," end quote, end parentheses "in
2 their February 25th, 1999, letter. The agency finds the
3 U.S. EPA's request is consistent with the board order
4 and the City's CSO exception," quote, "PCB85-214 dated
5 May 9th, 1986." In parentheses, "The agency will
6 initiate any necessary modifications to the NPDES permit
7 if so ordered by the Pollution Control Board in
8 PCB98-164."

9 Q That refers to the present variance case,
10 does it not?

11 A Yes.

12 Q And is it not that variance request -- strike
13 that.

14 What action did Rock Island take upon
15 receiving that renewed permit?

16 A I don't recall.

17 Q Did you direct my law firm to file an appeal
18 of that permit?

19 A Oh, yes. I'm sorry. Yes, we did.

20 Q What would be the impact on Rock Island if
21 that permit condition is upheld on appeal?

22 A From the time that it goes into effect until
23 probably June of 2001 when the treatment plant

24 improvements are completed, we will be forced to elect

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1 how we are going to violate our discharge permit every
2 time there is a significant rainfall event which occurs
3 approximately 50 times a year.

4 If we would continue to operate the plant as
5 it has been historically operated and start bypassing at
6 about 12 million gallons a day flow rate, we would be
7 violating directly that section of the permit.

8 If we choose to try to force up to 16 million
9 gallons a day through the plant, at the moment that
10 would actually flood out the plant because the grit
11 panels don't have the capacity to actually carry that
12 much flow. But even when that component of the
13 construction is done, we would then begin washing solids
14 out of the secondary clarifiers which would cause us to
15 violate our effluent standard probably for several days
16 after every storm event and certainly violate our
17 monthly effluent standards.

18 Q It's your understanding that the IEPA, if the
19 board grants relief in this proceeding, they have stated

20 that they will modify the -- take steps to modify the
21 permit to reflect the CSO relief that we are seeking in
22 this proceeding; is that correct?

23 A Yes.

24 Q In the opening statement, Mr. Warrington made

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1 a point that Rock Island is, in fact, seeking this
2 variance because of federal enforcement. Hasn't Rock
3 Island committed to all of the steps in the compliance
4 plan that's identified in the petition for -- amended
5 variance petition prior to the initiation of any federal
6 enforcement?

7 A Yes.

8 Q Hadn't Rock Island already begun to obtain
9 the necessary variance prior to that date?

10 A Yes. I believe so.

11 Q And in his opening statement Mr. Warrington
12 refers to problems that the agency is aware of resulting
13 from offensive discharges, I think is how he referred to
14 it.

15 At the October '97 meeting, did Rock Island
16 commit to fully implementing the nine minimum CSO

17 requirements that were set forth in the then existing
18 permit?

19 A Yes.

20 Q Is it your understanding that Rock Island
21 has, in fact, complied with and is in compliance with
22 these nine minimum requirements?

23 A Yes.

24 MR. HARSCH: I think we reached an agreement that

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1 what I had marked as Petitioner's Exhibit 12 --
2 13 -- excuse me -- Petitioner's Exhibit 13 -- have you
3 got a copy of that document?

4 MR. WARRINGTON: Right. I have.

5 MR. HARSCH: Is Rock Island's plan for complying
6 with the nine minimum requirements and the various
7 agency correspondence that indicates that Rock Island
8 is, in fact, in compliance with the nine minimum CSO
9 requirements; is that not correct, Mr. Warrington?

10 MR. WARRINGTON: That's correct, subject to the
11 field verification as it's indicated in the agency
12 letter dated February 19th, 1998, that is attached to

13 Petitioner's Exhibit 13. Other than that, it is the
14 agency's approval of the CSO plan committed by the City.

15 MR. HARSCH: Thank you, Mr. Warrington.

16 BY MR. HARSCH:

17 Q At that meeting in October of '97, did the
18 City of Rock Island commit to carrying out a shoreline
19 inspection program?

20 A Yes.

21 Q As part of that shoreline inspection program
22 and as part of complying with the nine minimum CSO
23 requirements that are set forth in both the formerly
24 existing and the new NPDES permit, has Rock Island been

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1 reporting the combined sewer overflow activity?

2 A Yes.

3 Q I show you what is marked as Petitioner's
4 Exhibit 14. Is that a copy of the current combined
5 sewer overflow activity that you have been reporting?

6 A Yes. This is a tabulation we keep of the
7 actual field reports that show combined sewer activity
8 beginning in April of 1998 and through February of 2000.

9 Q And you began this program after having

10 installed the agreed upon flow recording devices?

11 A Right. We agreed to monitor frequency and
12 duration at the CSOs that are on Sylvan Slough, and
13 those were installed in time to begin during the rainy
14 season of 1998.

15 Q Can you describe the shoreline inspection
16 program that Rock Island has been carrying out?

17 A Initially, we began by doing inspections
18 every Monday, Wednesday and Friday in the vicinity of
19 all the combined sewer overflows. We collected the
20 material and categorized the material. After we had
21 done that for about 18 months, we cut back on the
22 frequency to every Wednesday plus after every CSO event.

23 Q If I show you what I have marked as
24 Petitioner's Exhibit 15, can you describe what that is?

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1 A This is a document prepared to summarize the
2 findings of the shoreline inspection program. It's a
3 graphical representation of the debris being found at
4 each -- in the vicinity of each one of the combined
5 sewer overflows, a small map that locates each one of

6 the combined sewer overflows, and then a table that
7 reflects the number of items and the debris deposited
8 each day, broken into whether the inspection was after a
9 CSO event or whether there was no CSO event in the
10 interim since the last inspection. And, again, it's
11 broken down by each of the CSO locations.

12 Q And you are familiar with what your
13 inspectors have been finding?

14 A Yes.

15 Q And can you describe what it is; have you
16 reached any initial conclusion?

17 A Yes. Every inspection finds a small amount
18 of debris on the shore. There is a slight increase in
19 the amount of debris in some locations, most locations,
20 if there has been a CSO event since the last collection.

21 Q And that would include downstream from the
22 main treatment plant outfall?

23 A Yes. And upstream to try to get a background
24 of what's in the river prior to our main treatment plant

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1 outflow.

2 Q And when you do your inspections, you

3 actually physically pick up the materials the inspector
4 finds?

5 A Yes, we do.

6 Q Is it my understanding you are finding both
7 sanitary and nonsanitary items deposited on the river
8 bank even when there has not been a CSO event?

9 A Yes. That's correct.

10 Q As part of your commitment, have you agreed
11 to prepare a report?

12 A Yes. We agreed to conduct this inspection
13 program for a period of two years and then prepare a
14 report, then we would meet with IEPA and determine what
15 the next step should be based upon the results of this
16 program.

17 Q When is that two-year period up?

18 A End of March of this year.

19 Q So, you will be in the process, then, of
20 preparing that report shortly?

21 A Yes.

22 Q If I show you -- again, drawing your
23 attention back to --

24 A Can I add something to this?

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1 Q Sure.

2 A So, it's understood, the tabular form that
3 shows the CSO events going through the end of February,
4 the forms that do the analysis, which is Exhibit 15,
5 don't reflect that total amount. I believe they go
6 through September or October which is when this exhibit
7 was prepared.

8 Q Is it your understanding that condition 10 of
9 special condition 13 of the recently issued permit
10 that's on appeal and the similar provisions in the
11 previous permit provide that the Illinois EPA has a
12 right to notify Rock Island if it determines that there
13 is a water quality problem --

14 A Yes.

15 Q -- as a result of the CSO?

16 A Yes.

17 Q Have you ever received any notification from
18 Illinois EPA pursuant to that special condition?

19 A No.

20 Q Is it your understanding that such a
21 notification might, in fact, be a possibility after you
22 prepared your report and it's been submitted to IEPA?

23 A Yes.

24 Q Are there any other potential sources of

1 sanitary items other than Rock Island's main sewage
2 treatment plant outfall?

3 A Oh, certainly.

4 Q What are those?

5 A Well, the two closest would be just river
6 traffic. Our outfall is, I want to say, half a mile or
7 a mile upstream from Sunset Marina which is a
8 recreational boat harbor for about 500 boats, many of
9 which -- if not most of which -- regularly discharge
10 their sewage in the river as they go up and down the
11 river. Also, it certainly has a lot of barge use going
12 up and down the river and, of course, other treatment
13 plants and sources upstream from us.

14 Q While I might be personally familiar and
15 maybe some of the other people in the room are
16 personally familiar with the amount of boat traffic and
17 recreational use in this area of the Mississippi River,
18 there is no assurance that the board will be. Can you
19 provide some enlightenment?

20 A Well, the City and the public works
21 department operates Sunset Marina. And, I believe, it's
22 the largest marina in the Upper Mississippi and has an

23 enormous amount of traffic. We provide a pump-out
24 station free of charge for our boaters which gets used a

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1 few times a week. So, the presumption is that most of
2 those boaters are discharging their holding tanks when
3 they are out and about as opposed to going through the
4 time and trouble of going over to our pump-out.

5 Q Are there other marinas in this area?

6 A Oh, several other marinas, yes.

7 MR. HARSCH: That would conclude my direct
8 testimony examination of Mr. Hawes.

9 HEARING OFFICER KNITTLE: Thank you, sir.

10 MR. HARSCH: At this point, I would like to move
11 for the introduction of Petitioner's Exhibits 1 through
12 15.

13 HEARING OFFICER KNITTLE: Are you going to have any
14 objections, Rich?

15 MR. WARRINGTON: No objection.

16 HEARING OFFICER KNITTLE: We don't have to take
17 them one by one? You have no objections to any of the
18 15 exhibits?

19 MR. WARRINGTON: No objections. I might have some
20 clarifications or corrections through cross-examination.

21 HEARING OFFICER KNITTLE: Okay. I will admit
22 Petitioner's Exhibits 1 through 15 at this point in
23 time.

24 (Discussion off the record.)

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1 (A break was had in the proceedings.)

2 HEARING OFFICER KNITTLE: Back on the record.

3 Mr. Warrington, are you ready for your
4 cross-examination?

5 MR. WARRINGTON: We are.

6 HEARING OFFICER KNITTLE: Let me remind you, and
7 I'm sure you know, you are still under oath.

8 CROSS-EXAMINATION

9 BY MR. WARRINGTON:

10 Q Mr. Hawes, you testified that you had
11 participated in the preparation of the CSO exception, it
12 was 85214?

13 A Yes.

14 Q Do you recall the number of CSO events that
15 the City told the board occurred at the city prior to or

16 as part of that petition?

17 A No.

18 Q Would seven or so be about right, or do you
19 have any recollection of what you might have said?

20 A From which outfall?

21 Q For the one subject to the CSOs, so that
22 would be the main sewage plant outfall?

23 A No, I don't remember, but I'm fairly certain
24 it was more than seven at the main outfall.

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1 Q When you -- or when the City proposed certain
2 improvements to the plant, what was that choice based
3 on? Did you do like an independent evaluation of what
4 the -- any deficiencies of the plant might have been at
5 the time?

6 A Back in 1985?

7 Q 1985, yes.

8 A We had a consultant at that time. I don't
9 remember details of what they did, but the actual CSO
10 documentation that was prepared in June was done by a
11 consulting firm, yes.

12 Q Did that consulting firm raise any concerns

13 about the design of the secondary clarifiers?

14 A I don't remember.

15 Q But nonetheless, the City did choose to make

16 some improvements to the bar screens?

17 A Yes.

18 Q Was that as a result of the recommendations

19 of this consultant?

20 A I don't remember how we got to that point.

21 As I recall, there were negotiations with IEPA about

22 what needed to be done.

23 Q Going to Petitioner's Exhibit Number 1, which

24 I believe is an April 25th, 1997 -- the prior record

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1 might have been '95 -- but the violation notice in

2 Exhibit 1 lists on Attachment A the particular

3 violations covered by this violation notice. Does the

4 sludge summary report have any relevance to the CSO

5 exception?

6 A No.

7 Q On the effluent violations, to the best of

8 your knowledge, are any of these effluent violations on

9 these particular dates the result of a CSO event?

10 A I don't know whether they are or not. If I
11 remember right, these effluent violations are monthly
12 violations.

13 Q Okay. So, that would be, rather than a CSO
14 event, it would be a monthly average?

15 A If I recall these particular violations are
16 for monthly -- for the monthly average of total
17 suspended solids. So, I mean, it could have been CSO
18 events or it could have been plant upsets. I don't
19 recall.

20 Q You also testified you had conversations with
21 the loan or the grant personnel from the Illinois EPA
22 and that a low interest loan was unavailable or that it
23 would take a long process to get?

24 A Yes. Not unavailable but as we went through

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1 the process, we received a list of the items that we
2 would have to do in order to qualify for the loan. And
3 we determined that we could not satisfy that list. I
4 believe at the time we estimated it would take two years

5 for us to satisfy the items on that list. So we decided
6 to proceed with local financing instead.

7 Q Do you recall any of the items on that list?

8 A If I remember right, we needed very detailed
9 sewer system maps which we don't have right now. I
10 think we had to do an SSES for a major portion of the
11 city. And those are the two that come to mind.

12 Q Could you explain for the board what an SSES
13 is?

14 A Sewer system evaluation survey.

15 Q And the purpose of that would be to --

16 A Determines where infiltration and inflow are
17 coming. We did one for a portion of the city a number
18 of years ago. As I recall, the condition of getting the
19 low interest loan is we would have to do one for all the
20 areas tributary to the plant, which is essentially the
21 entire city.

22 Q Would a facility plan be one of those
23 elements necessary for a low interest loan?

24 A Could well be. I don't remember.

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1 Q And you testified as to the cost of the

2 current millennial dollars of correcting the CSO without
3 benefit of the relief granted in the CSO exception.

4 A Do you recall -- well, strike that.

5 A Are these numbers based on any new
6 engineering analysis of what needed to be done or what
7 needs to be done now, or are they extrapolations using
8 the cost of -- or the increase in cost of construction?

9 A They are extrapolations of the number that
10 was in the CSO report in 1985.

11 Q Have you done any studies recently to see
12 whether there would be more accurate numbers or perhaps
13 more definite cost figures for these kind of
14 improvements?

15 A No.

16 Q And the projected numbers are assuming that
17 the CSO exception is like totally invalidated that you
18 would have to go back to --

19 A No. The number in the 1985 document assumes
20 full compliance with the CSO guidelines at that time
21 which could be -- I don't remember which was the lowest,
22 but it could be complete separation of the system. It
23 could be providing first flush treatment ten times in
24 dry weather flow. I don't remember what was used back

1 in 1985.

2 Q And I believe you testified that if you tried
3 to force 16 MGD through the plant, you would have like a
4 plant washout?

5 A Two things. Right now the grit channels
6 cannot handle a flow rate of 16 million gallons a day.
7 They are currently under construction and that portion
8 of construction will be done before June of 2001. So,
9 today, if we were to try to force that much through the
10 plant, it would actually just overflow the grit channel
11 and flood the plant. Once the grit channel has the
12 hydraulic capability of carrying that much water, it
13 would then work its way eventually to the secondary
14 clarifiers and wash solids out of the secondary
15 clarifiers which then goes into the effluent and causes
16 a violation of effluent standards.

17 Q Did the secondary clarifiers -- I understand
18 that their primary purpose is to capture solids during
19 the treatment process for the effluent; is that correct?

20 A Well, one of the units captures solids. They
21 go through primary tanks first, then they go through an
22 aeration process in the secondary clarifiers which do
23 capture solids and also treat BOD.

24 Q Where do the captured solids go from the

1 secondary clarifiers during normal operation?

2 A They can go more than one place. Sometimes
3 they are recaptured and taken back to the aeration tanks
4 as a food source. And they can also be taken to the
5 digestors where they eventually get dried on drying bins
6 or dried on mechanical dewatering facilities and go to
7 either land application or landfill.

8 Q Is there a choice available to the City as to
9 which of these options is preferable under normal
10 circumstances?

11 A Yes.

12 Q And that is --

13 A Well, it depends. It's a day-to-day decision
14 of the people operating the plant. If they need to take
15 more of the solids back to the aeration tanks as a food
16 source to keep the bacteria population in the tanks,
17 they may do that. If they don't, then they waste -- the
18 solids end up going through the digestion process and
19 being disposed of.

20 Q Are there any limitations on this wasting or
21 transfer to the digesting process, limitations in terms

22 of quantity that is able to be removed?

23 A I'm sorry, yes. I think the answer to your

24 question is yes.

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1 Q Maybe we can try that again.

2 How much solids can the City remove on a
3 daily basis or an average basis to get them out of the
4 treatment system?

5 A I can't give you a number. We can handle all
6 the solids that we receive and dry and, you know --

7 Q What would be, say, the concentration trigger
8 for removing solids from the secondary clarifiers?

9 A I have no idea.

10 Q Drawing your attention to Petitioner's
11 Exhibit 15, the front page is a bar chart apparently
12 with colored bars. And just trying to read that like
13 the green --

14 HEARING OFFICER KNITTLE: Rich, can you hold on a
15 second?

16 MR. WARRINGTON: Sure.

17 (Brief pause in proceedings.)

18 HEARING OFFICER KNITTLE: Go ahead.

19 BY MR. WARRINGTON:

20 Q The color dark green seems to be indicative
21 of sanitary debris after a CSO event. Am I correct in
22 reading on this bar chart that upstream of 006 there
23 doesn't appear to be any sanitary debris after a CSO
24 event?

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1 A A very small amount. If you look at the
2 third page which is the table that the chart -- or that
3 the bar graphs come from, it shows that upstream, which
4 is the last row, upstream from 006 you get an average of
5 .05 sanitary debris items per day deposited on the
6 shoreline. And after a CSO event it's .06. So,
7 essentially, as you would expect, it's upstream. It
8 doesn't make much difference.

9 Q After a CSO event there is a -- not being a
10 mathematician -- would that be a 600 percent increase,
11 from .01 to .06?

12 A Where do you see the .01?

13 Q Let's see. Net waste from CSO event, it
14 would be the 7th of 9 columns on the third page of

15 Exhibit 15.

16 A That's two different locations.

17 Q Okay. Well, I am reading -- let's see. I

18 see what you mean. Okay.

19 So, it should read up so that the upstream

20 006 would be the last row at O.O1?

21 A Right.

22 Q But then to get the downstream 006, you would

23 go up to the second row in the 7th column, and that

24 would be .49?

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1 A Right. That's correct. That's what we

2 determined to be the net waste per day from a CSO event.

3 So it's half of a piece of debris per day collected

4 downstream.

5 Q And then going back to the bar chart on the

6 first page it has upstream of 001A and then downstream

7 of 001A; there doesn't seem to be any appreciable green

8 line upstream, but there is one downstream?

9 A That's correct. Again, if you look at the

10 table the numbers are so small that they don't show it

11 very well on a bar chart. Downstream from OO1A they are
12 saying that the net waste from a CSO event averages 1.02
13 items per day.

14 Q Yet upstream it would be a negative number?

15 A Yeah. Again, that's just averages.

16 Q What are we averaging here? Are we averaging
17 the number of items counted during an inspection?

18 A Yes. Divided by the number of days since the
19 last inspection.

20 Q So, those would be days that -- are those
21 like days just like seven days or three days, or would
22 it be days of the month or --

23 A It's days of the month. For example, if we
24 go out and pick up three items on the shoreline and it's

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1 been three days since the last pick up, we divide that
2 by the three days and say it accumulated at the rate of
3 one item per day. And the effort is to try to cover
4 apples and apples because there is a different length of
5 time between the inspections. So, if you just go with
6 the actual number of items per inspection, I think it
7 would skew the data.

8 Q Would it skew it, or would it make it more
9 accurate?

10 A I believe it would skew it. I mean, if you
11 go and pick up once every six months, you are going to
12 pick up a lot of stuff. If you go and pick up once a
13 day, you are not going to pick up very much.

14 Q And basically since your shoreline inspection
15 program picks up the material --

16 A Yes.

17 Q -- that any material found later would most
18 likely be recent?

19 A Yes.

20 Q And I believe, finally, you testified that
21 the City had recently purchased the marina?

22 A No. We own the marina.

23 Q You own the marina.

24 A We've owned it for about 30 years.

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1 Q And you testified, I believe, that boats
2 regularly discharge from their holding tanks to some
3 place in the river or --

4 A Yes.

5 Q How do you know that?

6 A Well, I know it from conversation with
7 boaters. I also know it from knowing the use of our
8 pump-out station. It's used very seldom. It's a free
9 service, but it's used very seldom. It's much easier
10 for them to discharge. Also, boats over a certain age
11 don't have any holding tanks; they just discharge like
12 an old train used to.

13 Q Are there any city leasing requirements for
14 the owners of the marina or the lessees of the boat
15 docks to, say, prohibit discharge while underway and
16 require the use of pump-out station?

17 A No. There are stated laws against that, but
18 no city ordinances.

19 Q Do you have any estimate of the number or the
20 percentage of boaters that have no holding tanks at all
21 versus the number of boaters with some holding tanks?

22 A No.

23 MR. WARRINGTON: No further questions.

24 HEARING OFFICER KNITTLE: Mr. Harsch, do you have

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1 redirect?

2 REDIRECT EXAMINATION

3 BY MR. HARSCH:

4 Q Without asking you a legal opinion, doesn't
5 the City exercise control over the boaters when they are
6 docked at the municipal dock?

7 A When they are at -- well, yes, when they are
8 docked and when they are in close proximity between the
9 docks.

10 Q And what do you attempt to require in terms
11 of using your pump-out facilities?

12 A We urge them to do that. As a matter of
13 fact, it is in our contract to urge them to do that, and
14 we provide the facilities free.

15 Q And the contract provides they will use it if
16 they haven't; is that correct?

17 A Yeah.

18 Q What about during the winter months, haven't
19 you --

20 A Theoretically, the river boaters are supposed
21 to come on land and use the restrooms we provide on
22 land.

23 Q And those are heated and provided for them at
24 that time?

1 A Yes.

2 Q Who enforces the state laws that you are
3 aware of?

4 A I think the DNR and Fish and Wildlife and
5 Coast Guard all have enforcement powers in the river for
6 boaters anyway.

7 Q Mr. Warrington asked a question regarding the
8 number of CSO outfall events?

9 A CSO, yes, events.

10 Q From the main outfall?

11 A Right.

12 Q If I direct your attention to Exhibit 2 to
13 the amended variance petition, specifically, page 5 of
14 that petition, does that refresh your memory?

15 A Yes. We have a table of the number of events
16 per year from each of the outfalls.

17 Q And what was that number?

18 A O1A is 103.

19 Q And it's your understanding that those were
20 actual measured overflows at the time that that petition
21 was prepared?

22 A Yes.

23 Q Is that number generally consistent with what

24 you are presently finding?

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1 A No. I would say it's high. We are right now
2 finding more in the order of, I believe, 60 or 70 a year
3 from that outfall.

4 Q And that would be contained in the number
5 from that data that you have been maintaining which is
6 set forth in Petitioner's Exhibit 14?

7 A Yeah. According to this there have been 99
8 outfalls -- excuse me -- overflows between April 1 of
9 '98 and February 29th of 2000, which is slightly less
10 than two years.

11 Q But most of those numbers are considerably
12 larger than seven?

13 A Yeah.

14 MR. HARSCH: No further questions.

15 HEARING OFFICER KNITTLE: Do you have recross,
16 Mr. Warrington?

17 MR. WARRINGTON: No recross.

18 HEARING OFFICER KNITTLE: Thank you, sir. You can
19 step down.

20 (Discussion off the record.)

21 HEARING OFFICER KNITTLE: We are back on the
22 record.

23 Mr. Harsch, your next witness.

24 MR. HARSCH: At this point in time I would like to

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1 call Mr. Thomas McSwiggin as an adverse witness.

2 HEARING OFFICER KNITTLE: Mr. McSwiggin, will you
3 have a seat.

4 (Witness sworn.)

5 THOMAS G. McSWIGGIN,
6 called as a witness, after being first duly sworn, was
7 examined and testified upon his oath as follows:

8 MR. HARSCH: Mr. Warrington and I have exchanged
9 some testimony. And I would just like to have
10 Mr. McSwiggin read that testimony into the record, and
11 then I will ask some questions if that's okay?

12 HEARING OFFICER KNITTLE: Any objection,
13 Mr. Warrington?

14 MR. WARRINGTON: No objection. We reserve the
15 right to ask clarifying questions, too.

16 HEARING OFFICER KNITTLE: So noted. You can go

17 ahead and read it in then.

18 MR. McSWIGGIN: I am manager of the permit section
19 of the division of water bureau control of the Illinois
20 Environmental Protection Agency. And as such am
21 responsible for the issuance of construction permits,
22 authorization to construct, NPDES permits, and so forth.
23 I have been an employee of the Illinois Environmental
24 Protection Agency since its formation in 1970; and prior

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1 to that, I was an employee of the Illinois Department of
2 Public Health.

3 Throughout my employment I have been engaged
4 in the permitting of municipal sewage treatment plants,
5 and I am thoroughly familiar with the development of
6 policies, procedures and regulations by the Illinois
7 Sanitary Water Board, the Illinois Pollution Control
8 Board and the Illinois Environmental Protection Agency
9 as they apply to municipal sewage treatment plants.

10 I am generally familiar with the Rock Island
11 main sewage treatment plant as it presently exists, the
12 past improvements that have been made to this plant, and
13 the improvements that are currently under construction

14 based upon my work for the Illinois Department of Public
15 Health and the Illinois Environmental Protection Agency
16 as well as my personal familiarity with the City of Rock
17 Island.

18 During the late 1960s, it was the accepted
19 and normal practice of the waste water treatment
20 industry, in general, and the Illinois Sanitary Water
21 Board, in specific, to design and permit municipal
22 sewage treatment plants based upon the design average
23 flows rates. This practice was continued in the 1970s
24 when the Illinois Environmental Protection Agency was

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1 created. It was not until concerns over treatment of
2 wet weather flows that the waste water treatment
3 industry began to evaluate the necessity of establishing
4 design standards for peak flow rates and concerns over
5 design maximum flow rates began to surface.

6 Accordingly, the first time that Illinois had
7 design standards that specified that secondary
8 clarifiers, besides based on maximum design flows, was
9 in 1980 when the Illinois Environmental Protection

10 Agency adopted the Illinois Recommended Standards for
11 Sewage Works. The State of Illinois Sanitary Water
12 Board proprietary treatment plants and treatment
13 overflows, technical policy 20-24 dated February 1,
14 1969, and the Illinois Environmental Protection Agency's
15 design criteria for waste water treatment plants and the
16 treatment of sewer overflows, WPC technical policy 20-24
17 revised July 1971 do not contain any requirements
18 specifying treatment plants be designed to treat maximum
19 flow rates, but instead have criteria that apply to the
20 design average flow.

21 During the late 1960s and early 1970s, the
22 waste water treatment community, in general, and the
23 Illinois Sanitary Water Board and the Illinois
24 Environmental Protection Agency, in specific, accepted

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1 200 percent to 250 percent peaking factors. That is 100
2 to 150 percent incremental increase over the base flow
3 as being generally applicable to the design average
4 flows. During the late 1960s and early 1970s, treatment
5 plants in Illinois were designed to meet secondary
6 treatment standards which were expressed in terms of

7 narrative description. The initial effluent limitations
8 that would have been applicable to the City of Rock
9 Island's main sewage treatment plant would simply have
10 been secondary treatment. Greater monthly average
11 effluent limitations of 40 milligrams per liter BOD and
12 45 milligrams per liter suspended solids were added.

13 The treatment plant improvements that were
14 designed and constructed in the 1960s and early 1970s
15 would have met secondary treatment, and there is a
16 reasonable possibility that the treatment plant would
17 have been capable of meeting these limits at a maximum
18 design flow rate of 16 million gallons per day.

19 The area of suspended solids controlled by
20 clarifiers is an area that has undergone significant
21 technical improvements since the early 1970s. However,
22 even with these technical improvements, it is impossible
23 to state with certainty that the maximum flow rate is
24 and can be treated at a given sewage treatment plant

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1 because of the variation in individual characteristics.

2 The variables include such items as the

3 design of treatment plant units, raw waste water,
4 treatment plant microorganisms, operation and
5 maintenance schedules, and other physical parameters
6 such as temperature, pH, et cetera. Accordingly, the
7 Illinois Environmental Protection Agency has recognized
8 the need to include NPDES permit language requiring
9 discharges to treat the maximum practical flow through
10 their treatment plants during wet weather events prior
11 to utilizing bypass or CSO outfalls and in lieu of
12 specifying an exact numerical number for the individual
13 plants.

14 The vast majority of NPDES permits issued for
15 municipal treatment plants contain such language today.
16 I would testify that apart from the constraints as a
17 result of the Pollution Control Board's order in
18 PCB85-214 dated March 9, 1986, the NPDES permit and
19 certain grants to the City, that there was nothing that
20 precludes that the Illinois Environmental Protection
21 Agency changing the rate of the City of Rock Island's
22 treatment plant to 8 MGD design average flow and 12 MGD
23 design maximum flow plan and that apart from such
24 constraints the Environmental Protection Agency would

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1 have granted a request to so designate Rock Island's
2 plant.

3 The Illinois Environmental Protection Agency
4 joined as a copetitioner in the combined sewer exception
5 proceeding docketed as PCB85-214. The Illinois
6 Environmental Protection Agency agreed that the then
7 existing environmental impact of combined sewer
8 overflows from Rock Island's sewage treatment plant from
9 outfalls OO1A and the combined sewer overflows into
10 Sylvan Slough from outfalls OO2, 003, 004, 005 and 006
11 did not produce a significant environmental impact and,
12 accordingly, that CSO relief was warranted.

13 This recommendation was based, in part, upon
14 evaluations of certain specified contaminants from the
15 then existing sewage treatment plant main CSO overflow
16 through outfall OO1A. The current design standards at
17 the Rock Island treatment plant as it physically existed
18 at the time of the filing of the CSO exception would
19 have had an 8 million gallon per day design average flow
20 rate and a 12 MGD design maximum flow rate.

21 (Off the record.)

22 HEARING OFFICER KNITTLE: Okay. We are back on the
23 record. Mr. Harsch.

24 MR. HARSCH: I have a few additional questions for

1 Mr. McSwiggin.

2 DIRECT EXAMINATION

3 BY MR. HARSCH:

4 Q Mr. McSwiggin, if I show you what is the
5 agency's variance recommendation filed on or about
6 November 3rd, 1999, in this proceeding, specifically
7 Exhibit O to that variance recommendation, are you
8 generally familiar with that document?

9 A Yes, I am.

10 Q Would that be the original construction
11 permit for the treatment plant improvements that you
12 have just testified about?

13 A Yes, it is.

14 Q Isn't the basis of design for that
15 construction plant, as stated on the second page, 8
16 million gallons design per day average flow?

17 A Yes, it is.

18 Q And that would be the secondary clarifiers?

19 A That was listed for both primary and
20 secondary clarifiers as having an 8 MGD capacity.

21 Q You have testified that at the time this
22 permit was issued, the agency typically used a peaking

23 factor of 100 percent, correct?

24 A That's correct.

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1 Q Or 100 to 150 percent?

2 A Yes.

3 Q That would have then been consistent, and the

4 agency then describes this plant as an 8 MGD design

5 average and then 16 MGD design maximum flow rate plan?

6 A That is correct.

7 Q Is it your understanding that that

8 designation has been used by the agency and by Rock

9 Island ever since that permit was issued?

10 A That is correct.

11 Q That designation has nothing to do with Rock

12 Island's treatment plant being physically capable of

13 treating 16 million gallons per day and complying with

14 the current applicable effluent limitations, does it?

15 A That is correct.

16 Q You talked about a policy that the agency has

17 developed to include language in the permit that

18 municipalities are to treat the maximum practical flow

19 prior to using the CSO discharge. When, approximately,

20 was that policy implemented?

21 A The policy was implemented in the 1980s at
22 some point as we were struggling with the concepts of
23 getting appropriate language into NPDES permits.

24 Q And does that concept apply to all treatment

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1 plants, all municipal plants in the state?

2 A It applies to the vast majority, yeah.

3 Q And that would include the plants built after
4 1980?

5 A That's correct.

6 Q And if I understand correctly from your
7 testimony, plants built after 1980 would have had to
8 have been designed and permitted and ultimately
9 constructed to meet a design maximum flow rate?

10 A That is correct.

11 Q So, the agency even applies that policy for
12 plants that are in fact -- that were, in fact, required
13 to be actually physically built to meet a design maximum
14 flow rate?

15 A That is correct.

16 Q That policy isn't written, is it?
17 A No, it's not.
18 Q Is the City of Rock Island's present
19 inability and historical inability to treat flows up to
20 16 million gallons per day and still comply with permit
21 effluent limitations really any different than any other
22 municipality that has a wet weather CSO discharge?
23 A We have had similar experiences elsewhere
24 with other municipalities. It's not an uncommon

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1 situation.
2 Q In fact, it would be a common one?
3 A Fairly common, yes.
4 Q You are not aware of any enforcement action
5 by the Illinois Environmental Protection Agency that has
6 ever been initiated against Rock Island for not treating
7 16 MGD before it uses the CSO bypass, are you?
8 A No, I am not.
9 Q Would you be aware of it if it existed?
10 A Possibly aware of it. I generally sit in on
11 the enforcement decision group and review all the cases
12 as they go through the process in the early stages.

13 Q So, if I understand the policy, then, if a
14 municipality like Rock Island has a permit that has a
15 design average flow rate and a design maximum flow rate
16 and despite the floating calculations having been
17 calculated based on design maximum flow rate and despite
18 that the design maximum flow rate being specified in the
19 permit, the general policy of the agency is that the
20 municipality is to treat the maximum practical flow and
21 then use the CSO bypass?

22 A That's correct.

23 Q Is the purpose of that policy to -- is one of
24 the purposes of that policy to ensure that

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1 municipalities don't suffer a washout of solids in their
2 plants by trying to treat too much flow?

3 A That is correct.

4 Q What is the general result of a washout of
5 solids from the treatment plant?

6 A The general result of a washout of solids is
7 actually you lose the treatment capability for a period
8 of two or three days, maybe up to a week, following an

9 event so that when you actually return to dry weather,
10 the more concentrated flows, you probably will then end
11 up with violations of the biochemical oxygen demand
12 because you have lost the solids which are necessary to
13 provide the treatment.

14 Q Is the definition of maximum practical
15 flow -- is there a definition anywhere for maximum
16 practical flow?

17 A Not that I am aware of.

18 Q How would you define it as that term has been
19 used?

20 A That flow definition, I would define it as
21 the maximum flow that that plant can sustain without
22 using the solids and still maintaining compliance with
23 the conditions of the permit. In other words, you run
24 it up to its maximum ability to treat the wastewater to

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1 the requirements that are set forth in that plant.

2 Q A point of clarification. When you refer to
3 the effluent, you are talking about the permit effluent
4 limitations?

5 A That's correct.

6 Q That actual flow rate, you testified, will
7 vary from day to day, plant to plant, condition to
8 condition?

9 A That's correct.

10 Q You are aware that the current NPDES permit
11 that is on appeal changed that language in Rock Island's
12 permit?

13 A Yes, I am.

14 Q If I show you the -- let's see -- what I have
15 marked as Petitioner's Exhibit 12, it's an attachment to
16 that, is that not, the September 14, '99, letter that
17 you signed to the City of Rock Island transmitting the
18 reissue permit?

19 A Yes. That's correct.

20 Q In the numbered paragraph that Bob Hawes
21 read, number one, there is reference to the definition
22 was requested by U.S. EPA to include the change requires
23 Rock Island to specifically treat 16 million gallons
24 before it uses the CSO as being a definition of, quote,

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1 practical maximum flow. Do you know the basis of that

2 definition?

3 A The basis of the request from the U.S. EPA,
4 as I understand it from representation of staff, was the
5 fact that the plant had a listed capacity of 16 MGD.

6 Q And that would be no different than any of
7 the other plants in Illinois that currently have the
8 language in the permit that you have testified to?

9 A That's correct.

10 Q Does the U.S. EPA object to the issuance of
11 the vast majority of these permits?

12 A Not really because U.S. EPA does not review
13 the vast majority of permits under today's operations.
14 They review only selected permits.

15 Q Will you explain if Rock Island is successful
16 in obtaining the variance in this proceeding how the
17 agency would proceed to modify the permit as expressed
18 in this condition?

19 A The process of modification of the permit is
20 very similar to the process of reissuing the permit. We
21 would expect the City, upon receipt of a favorable
22 variance decision, would ask us to open the permit to
23 make the language in the permit compatible with the
24 language in the variance. We would have to proceed

1 again through public notice, allow the opportunity for
2 the public to comment. We would again have to probably
3 allow the U.S. EPA an opportunity to review. And if we
4 succeed in getting through all those, proceed with the
5 issuance of the permit.

6 Q Any idea how long that would take if there
7 aren't any objections?

8 A It's a process that would take probably
9 anywhere from two to three months.

10 Q And if there is an objection by U.S. EPA or a
11 citizen, the process could take a year to a year and a
12 half to complete?

13 A That's very possible; yes, that has happened.

14 (Brief pause in proceedings.)

15 Q Mr. McSwiggin, if I show you -- are you
16 generally familiar with the CSO petition that was
17 jointly filed with Rock Island and the agency as well as
18 the board's CSO relief to Rock Island?

19 A Not that much in detail. I'm familiar that
20 that process took place.

21 Q Are you familiar with the various options
22 that were available to the petitioner for demonstrating
23 CSO relief under the board rules?

24 A Yes.

1 Q If I show you what I have marked as

2 Petitioner's Exhibit --

3 MR. WARRINGTON: We are up to 16, I believe.

4 MR. HARSCH: 16.

5 HEARING OFFICER KNITTLE: That's correct.

6 BY MR. HARSCH:

7 Q And I draw your attention to what is listed

8 as section 306.361 and ask you to briefly scan that.

9 And after you have scanned it, this is your

10 understanding of what you have just referred to as the

11 various options available to a petitioner for

12 demonstrating CSO relief?

13 A Yes. That is correct.

14 Q Is it your understanding that Rock Island and

15 the agency petitioned the board for relief under

16 option A which is the minimal discharge impact showing?

17 A Yes.

18 Q Under this rule, the petitioners were

19 required to evaluate a number of various factors; is

20 that correct?

21 A That's correct.

22 Q Do any of those factors impose any criteria
23 with respect to maximum -- design maximum flows?
24 A No, they do not.

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1 Q And, in fact, aren't all of those factors
2 just factors of what the existing CSO discharge would be
3 producing in the environment?

4 A That's correct.

5 Q And it's generally your understanding that
6 the Illinois EPA -- strike that.

7 Is it your understanding that during the
8 19-- that after construction of the treatment plant
9 improvements and throughout the 1980s and, in fact, as
10 existing until today, Rock Island has not had the
11 physical capability of treating flows substantially in
12 excess of 12 million gallons per day?

13 A That is my understanding, yes.

14 Q So any of the CSOs and the impact of those
15 CSOs that would have been studied would have, in fact,
16 looked at the results from CSOs that started to occur at
17 12 million gallons per day?

18 A I believe so.

19 Q Would you generally expect some levels of
20 floatable sanitary items to be discharged from the CSO
21 in general?

22 A Yes.

23 Q Would you expect that some levels or some
24 numbers of floatables would be discharged from Rock

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1 Island's CSO, main CSO?

2 A Yes.

3 Q Can you explain, since you have participated
4 in a number of interagency task forces, generally what
5 the difference is between the Illinois program for
6 dealing with CSOs and the U.S. EPA municipal CSO policy?

7 A One thing, Illinois had a CSO program much
8 earlier than the U.S. EPA. Illinois' program began in
9 1972 and basically required that all CSOs be treated to
10 sufficient treatment of capture of the first flush.
11 That had to go through what we today would call a
12 secondary treatment.

13 The next increment, up to 10 times the dry
14 weather flow, had to be subjected to primary treatment

15 plus chlorination. After you got flows in excess of the
16 first flush plus the 10 next, then you could discharge
17 it.

18 The federal program, which came into being in
19 1994, basically is a two-step program. It requires
20 immediately -- well, actually, by 1997, the
21 implementation of the nine minimum controls. Then it
22 goes on and the next step is to implement a program
23 based upon actual water quality studies or it has an
24 alternative called the presumptive program which

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1 basically is set forth in the policy that if you
2 retain -- I forget the exact percentages, but it's
3 somewhere around 85 percent of the solids that would
4 normally be discharged -- if you somehow or another
5 capture those, there is a presumption that you will emit
6 water quality. We, in both programs, do require,
7 ultimate end, the achievement of water quality. It's a
8 different path on how we get there.

9 Q It's my understanding that you are in general
10 agreement that Rock Island is in compliance with the
11 nine municipal CSO conditions in its permit subject to

12 the field verification caveat that Rich --

13 A Yes.

14 Q You are not aware of any -- and Rock Island

15 is still in the data gathering stage, is it not, end of

16 its CSO?

17 A As I understand it, yes.

18 Q So, conceivably, there may not be a

19 determination by the agency that anything additional is

20 required for the main outfall; or they may, in fact,

21 notify Rock Island pursuant to condition 10 of standard

22 condition 13 that something is required?

23 A Yes. That is a step that has to be taken

24 once we complete the review of the reports that come in.

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1 Q And that is yet to happen?

2 A Yes. That is yet to happen.

3 Q Is it your understanding that assuming the

4 State determines for a specific discharger that some

5 additional control is necessary that a schedule and a

6 long term control strategy would be developed?

7 A Yes.

8 Q Have you, in fact, developed long term
9 control strategies for any discharger in Illinois?
10 A Yes. We have got some that we think are in
11 that category in that they are showing no impact of
12 water quality from what we can see now. So, the need
13 may not necessarily be there. So, they have taken a
14 step to come into final compliance of water quality.
15 But those that -- we have had some also that have
16 complied with the Illinois program that over the years
17 have probably come into compliance with the federal
18 program earlier than what the federal program required.

19 Q Have you notified anybody pursuant to the
20 study that additional control would be required that you
21 are aware of?

22 A Not that I am aware of. We have had some
23 discussions on the possibility of a downstate community.

24 Q So Rock Island's situation is not unique?

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1 A It's not unique.

2 Q Are you generally familiar with what the
3 results are of Rock Island's shoreline inspection
4 program?

5 A Generally, yes.

6 Q And do their findings surprise you?

7 A No.

8 Q Is that what you would expect to see
9 downstream from a municipality such as Rock Island's?

10 A Yes. And their other combined sewers.

11 Q If the permit appeal is denied and if the
12 board denies the variance request, what are the options
13 available to Rock Island?

14 A Well, the City would have the right to appeal
15 both of the decisions to the board to a certain court
16 level. So that is an option available. But if there
17 is -- once we have exhausted the legal ramifications,
18 then we have to turn to the engineering ramifications
19 and proceed with a program to do something in addition
20 to that.

21 Q And that is the program, in fact, Rock Island
22 is carrying out today?

23 A Yes.

24 MR. HARSCH: I have no further direct questions.

1 HEARING OFFICER KNITTLE: Mr. Warrington.

2 CROSS-EXAMINATION

3 BY MR. WARRINGTON:

4 Q Mr. McSwiggin, I believe you testified that
5 your reading of the sanitary water board proprietary
6 treatment planned treatment of sewer overflow, the
7 technical release is dated February 1st, 1969, and then
8 the revisions for July 1971. I believe these are rules
9 that were -- maybe not even rules. These are like
10 statements adopted by the Illinois Sanitary Water Board?

11 A There was a policy statement. And it
12 was -- back in those days there was no such things as
13 Administrative Procedures Act. So an administrative
14 agency could adopt a policy merely by putting it on the
15 street. And the Sanitary Water Board document is
16 actually a technical release which meant it was signed
17 by the technical secretary who was also the secretary
18 for the division of sanitary engineering under the
19 Department of Public Health. So, the document was put
20 together by the technical staff of the board and put on
21 the street as guidance to the consulting profession as
22 to how we would review sewage treatment plant designs.

23 Q So, the standards in these releases or
24 documents, they weren't independently enforceable by

1 anyone?

2 A They were basically statements of how we
3 would review a permit. And you had the option of
4 basically denying the permit if that was not in the
5 application.

6 Q At that time, which was, I believe, about the
7 late Sixties, early Seventies, would there be other
8 options other than denial of a permit if an applicant
9 didn't have similar numbers as the guidelines?

10 A There was a lot of negotiation that would
11 also take place. If they came in and did not have a
12 design that fit that particular technical policy
13 exactly, we had the option of sitting down with that
14 community or that applicant and their consultants and
15 negotiate, attempting to get something that would
16 generally meet the overall goal of providing secondary
17 treatment.

18 Q I believe you mentioned secondary treatment
19 and there is a narrative description. What was the
20 narrative description of what secondary treatment was
21 supposed to be?

22 A Basically, it was the provision of a
23 biological unit after it was the second stage of sewage
24 treatment, biological unit being a treatment filter or a

1 form of activated sludge system. And that, of course,
2 is followed by the secondary clarifiers.

3 In other words, it was a two-step process
4 versus the normal sewage treatment plant that had taken
5 place in the Fifties and I think the early Sixties in
6 most communities was primary treatment. In other words,
7 it had just the clarifiers and then discharged that
8 water to the Mississippi River or whatever the receiving
9 stream might be.

10 Q So, at that time in the late Sixties, early
11 Seventies, the secondary treatment wasn't expressed as a
12 numerical measurable limitation on the effluent?

13 A No, it was not.

14 Q Going back for a second to these technical
15 releases. I believe you testified that they don't have
16 criteria for design maximum flow?

17 A They don't have provisions for design based
18 upon design maximum flow.

19 Q Did they contain any information or advice or
20 guidance that the design engineer would have to consider

21 or should consider peak flows or variation in flows?
22 A Yes. He should have considered that, and he
23 should have looked at the impact that that would have on
24 the treatment plant and its operation.

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1 Q I believe you also testified as to your
2 understanding of maximum practical flow. Is it possible
3 that a particular plant might have a maximum practical
4 flow that is higher than the design maximum flow?

5 A Yes.

6 Q And in that case the language in the permit
7 would require the treatment plant to treat more than its
8 design maximum flow?

9 A Yes.

10 Q And I believe in your prepared statement here
11 you didn't intend to make any legal conclusions?

12 A No. Read right through a cross-out.

13 Q Going back to your recall of the combined
14 sewer overflow exception petition and the various
15 investigations that the agency and the city engaged in,
16 do you have any personal recollection of what those
17 investigations were?

18 A I did not personally review the documentation

19 presented by Rock Island.

20 Q And if I call your attention to Exhibit O in

21 the amended variance recommendation filed approximately

22 November 2nd of 1999, and Exhibit O, I believe you

23 testified was the actual permit --

24 MR. HARSCH: Wait a minute. I'm sorry.

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1 MR. WARRINGTON: I think you have overshoot it or

2 you might be in the permit record.

3 BY MR. WARRINGTON:

4 Q And I believe there is one, two, in calling

5 your attention to the third page of Exhibit O, the form,

6 I believe, was developed by the Sanitary Water Board?

7 A Yes.

8 Q And this would be prior to your position as

9 permit manager for the Illinois EPA?

10 A That's correct.

11 Q Calling your attention to line C-34,

12 approximately in the middle of the page.

13 A Uh-huh.

14 Q I read it as the design maximum daily flow
15 rate of the ultimate treatment works including this and
16 any future proposals utilizing built-in hydraulic
17 capacity as having 16 MGD?

18 A That's correct.

19 Q Would that be typed in by the applicant?

20 A That is the applicant's statements.

21 Q Are you aware of any like accompanying
22 documents that might have clarified what the ultimate
23 treatment works might have been?

24 A This application for permit would have been

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1 accompanied by design plans and specifications that
2 would have described the treatment plant in detail.

3 Q And then a permit would be granted based on
4 those plans submitted?

5 A Plus the application. So, it's a review of
6 the entire document package.

7 Q But are you aware of any like future
8 proposals that might have been considered at the time of
9 this particular application that might have increased
10 the plant capacity?

11 A No, I am not.

12 MR. WARRINGTON: I have no further questions.

13 HEARING OFFICER KNITTLE: Do you have any redirect?

14 MR. HARSCH: Yeah.

15 REDIRECT EXAMINATION

16 BY MR. HARSCH:

17 Q I may have misspoken. If I draw your
18 attention to Exhibit -- I think it's Exhibit Q to the
19 admitted variance recommendation. This is, in fact, the
20 permit that was issued --

21 A That's correct.

22 Q -- to construct, not Exhibit O?

23 A Yeah. The permit is Exhibit Q, I believe
24 that was, yes. Get that right, problem with bifocals.

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1 Q If I look at the permit itself, the permit is
2 predicated in the special paragraph that it shall not
3 exceed design average flows of 8 MGD; is that correct?

4 A That's correct.

5 Q And it has -- and this permit was issued at a
6 time after Illinois had adopted the revisions to the

7 secondary standards imposing 20 milligrams per liter and
8 25 milligrams per liter for BOD; is that correct?

9 A I believe that's correct. I'm looking for
10 the date on the permit.

11 MR. WARRINGTON: Right under the agency.

12 A February 12th. Immediately after that.
13 Design probably would have been done under the other
14 document.

15 Q And so this permit to construct and operate
16 is the one that is consistent with the existing design
17 requirements as you understood them to be at the time
18 this permit was issued?

19 A That's correct.

20 Q Mr. Warrington has referred to the technical
21 release 2024 which I think is found as Exhibit J to the
22 variance -- amended variance petition recommendation.
23 Is that the rule you are referring to?

24 A Yes. That is the 1969 edition of that which

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1 had the Sanitary Water Board heading; then there is a
2 revised edition that had the Environmental Protection
3 Agency heading.

4 Q But it's basically the same document?

5 A There are some revisions, but it's basically
6 the same document.

7 Q I call your attention to page 5, item 2,
8 settling tanks. Isn't it true that the design for the
9 final settling tanks was to be based on a surface
10 settling rate of 400 to 500 hundred gallons per square
11 foot?

12 A That is correct.

13 Q And that is the design average flow rate?

14 A That is correct.

15 MR. HARSCH: No further questions. Thank you very
16 much.

17 HEARING OFFICER KNITTLE: Any recross,
18 Mr. Warrington?

19 MR. WARRINGTON: Just two.

20 RECCROSS-EXAMINATION

21 BY MR. WARRINGTON:

22 Q Mr. McSwiggin, calling your attention to
23 Exhibit Q again, on page 2 there seems to be a PS.

24 HEARING OFFICER KNITTLE: Can you hold on a second?

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1 (Brief pause in proceedings.)

2 HEARING OFFICER KNITTLE: Can you tell us what we
3 are looking at, Mr. Warrington?

4 MR. WARRINGTON: It's Exhibit Q and page 2.

5 MR. HARSCH: To the amended variance
6 recommendation?

7 MR. WARRINGTON: It's attachment Q to the amended
8 variance recommendation of the agency.

9 BY MR. WARRINGTON:

10 Q Calling your attention to page 2 of Exhibit
11 Q, there seems to be a PS that I believe in the first
12 line reads, "Design average flow 8 MGD," and then "200
13 percent."

14 Does that translate into 100 percent peaking
15 factor that you previously testified to?

16 A Well, that -- when it says maximum 200
17 percent, that would essentially be -- it's 200 percent
18 of the base. In other words, twice the base. So, it
19 would be 16.

20 Q From your understanding of the practices of
21 the agency at that time, would that PS have been
22 included on the copy going to the city, or would that
23 only be going to the region?

24 A Basically, it went to the region as a form of

1 transmission of the basic design of the plant to them.
2 Whether it appeared on the copy to the city, I can't
3 recall whether we did that or not. The purpose of this
4 was to save some paper; even in those days, tried to
5 make a concise statement so the regional people would
6 have some idea what the plant was all about.

7 Q I see. And I believe you have also testified
8 that policy statement refers to the surface settling
9 rate of a secondary clarifier?

10 A Uh-huh.

11 Q And it specified a number for the design
12 average flow?

13 A That's correct.

14 Q Is there any way to translate or come up with
15 a number for what would be the necessary minimum
16 settling rate for the design maximum flow?

17 A In those days that was part of a developing
18 science. We now know today what those design maximum
19 flows should be. That wasn't all that well penned down
20 in the late Sixties.

21 Q But that would be something that would have
22 probably have been discussed with the applicant during
23 the permit review process?

24 A Probably, but not very much in depth.

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1 MR. WARRINGTON: No further questions.

2 HEARING OFFICER KNITTLE: Any redirect, Mr. Harsch?

3 MR. HARSCH: No. Thank you, Mr. McSwiggin.

4 HEARING OFFICER KNITTLE: Thank you, sir. You can
5 step down.

6 (A break was taken in the proceedings.)

7 HEARING OFFICER KNITTLE: We are back on the record
8 after a fairly extended lunch break, and we are
9 continuing with Petitioner's case in chief in PCB98164.

10 MR. HARSCH: I would like to move that Petitioner's
11 Exhibit 16 be admitted into evidence.

12 MR. WARRINGTON: No objection.

13 HEARING OFFICER KNITTLE: Okay. That will be
14 admitted. Mr. Harsch, you can call your next witness.

15 MR. HARSCH: Mr. Huff.

16 HEARING OFFICER KNITTLE: Mr. Huff. Will you swear
17 him in, please?

18 (Witness sworn.)

19 JAMES E. HUFF,

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

22 DIRECT EXAMINATION

23 BY MR. HARSCH:

24 Q Mr. Huff, would you please, generally, for

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1 the board describe your educational and professional
2 background?

3 A I have a bachelor of science in chemical
4 engineering from Purdue University, 1970. And I have a
5 masters of science in engineering from the environmental
6 engineering department at Purdue University, 1971. I
7 spent two years with a Mobil oil refinery in Joliet as
8 part of the start-up team. I was responsible for
9 wastewater and solid waste.

10 I spent three years at IIT Research Institute
11 doing advanced wastewater treatment work. I spent four
12 years as the director of environmental affairs for a
13 chemical company called Akzo Nobel Chemical, A-k-z-o.
14 And I have spent approximately the last 20 years as vice
15 president of an environmental consulting firm, Huff &
16 Huff, Incorporated.

17 Q Have you been retained by Rock Island to
18 perform various services over the years?

19 A Yes. Since approximately 1985.

20 Q And what was the first project you were
21 retained by Rock Island to work on?

22 A My recollection was that I did a sediment
23 survey downstream of the main outfall which has also
24 been referenced as OO1A and AO1 in this proceeding.

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1 Q And do you recall the purpose of that study?

2 A The purpose of that study was in support of
3 Rock Island's preparation of an exception request from
4 the CSO requirements, the 10 times dry weather flow and
5 first flush.

6 Q And if I show you what has been marked
7 as -- I have marked as Petitioner's Exhibit 17; is that
8 a copy of the report you are referring to?

9 A Yes, it is.

10 Q Did you perform that study alone, or did
11 anybody from the Illinois Environmental Protection
12 Agency assist?

13 A There were two people from the Illinois
14 Environmental Protection Agency that were there as well.

15 Q Who were those people?

16 A Jim Kammuller and a Larry Schmoot (sic).

17 Q And can you briefly describe, was this the
18 report that was submitted to the Pollution Control Board
19 in the CSO proceeding along with the CSO joint petition
20 which has been marked as Exhibit 1 to the amended
21 variance petition?

22 A I am sure it was submitted with that, yes,
23 sir.

24 Q And it's the report referred to by the board

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1 in their CSO dated May 9, 1986.

2 If I draw your attention to page 6 of the
3 board's opinion, was that the study that was submitted?

4 A Yes, sir.

5 Q After conducting this study, have you had the
6 opportunity to conduct any other evaluations of the
7 Mississippi River immediately downstream from the main
8 treatment plant outfall?

9 A Yes, sir.

10 Q And will you describe those?

11 A I did a mixing zone study in approximately
12 1990 for the City on that outfall. I did a mussel
13 survey in approximately 1994 on behalf of the City. And
14 then in 1999, I did a sediment study, again, in
15 conjunction with the CSO monitoring requirements and
16 their NPDES permit.

17 Q I show you what I have marked as Petitioner's
18 Exhibit 18; is that a copy of the October report you
19 just referred to?

20 A Yes. This is October 1999 sediment survey
21 result.

22 Q Can you briefly describe or compare the
23 results that you found between the 1985 report, which is
24 Petitioner Exhibit 17, and that set forth in Petitioner

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1 Exhibit 19 -- 18?

2 A Eighteen. They were conducted a little
3 differently. In the 1985 study, Petitioner's Exhibit
4 17, we took individual samples down below the outfall.
5 And in the 1999 study, we took the individual samples

6 and basically composited those into one sample. The
7 primary difference that you could see was in the 1985
8 study. Downstream of the main outfall there was some
9 oil that was given off with each sediment sample; that
10 was totally gone.

11 In the 1999 study, we didn't find any oil.
12 In fact, in a couple of the samples in 1985 you could
13 smell the oil as well. There was none of that in the
14 1999 survey. That was a primary difference, was that
15 visually the sediment in 1999 was cleaner.

16 Analytically-wise, both studies found that
17 the metal levels -- the '85, we also did phosphorus and
18 nitrogen levels -- were below the averages that one
19 finds below sewage treatment plants in Illinois based on
20 a study done by Kelly & Hite, H-i-t-e, for the Illinois
21 EPA.

22 Then we did some different metals in the 1999
23 study and found what would be described as low levels in
24 the composite sample with one exception, and that was

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1 zinc. We found an elevated zinc level that my
2 professional opinion is is an outlier sample. I don't

3 believe that it accurately reflects down there, and it
4 was considerably higher than the previous zinc samples
5 that had been collected, all of them.

6 Q Do you have an opinion as to whether or not
7 Rock Island's discharge is having an adverse
8 environmental impact on the bottom sediments below the
9 main sewage treatment plant outfall which includes the
10 CSO outfall that we are talking about?

11 A Clearly in '85 you could identify oil from
12 that outfall that we concluded in '85 that there was a
13 minimal environmental impact, but an impact. This time
14 those conditions we didn't find there. So, to the
15 extent that there is any environmental impact in 1999,
16 it's less than when the board granted the relief from
17 the CSO requirements previously.

18 Q Do you have any basis to characterize whether
19 or not what you found in the other two studies you
20 conducted in the interim are consistent with the 1999
21 study?

22 A When we did the mussel survey, we collected
23 samples from 53 locations immediately downstream of the
24 outfall. And that study which was conducted in

1 approximately 1994 also did not find any oil or darker
2 color sediments. It was predominantly sand and gravel
3 with some silt. And that's exactly what we found in
4 1999 as well.

5 Q Is it your opinion that Rock Island's
6 discharge produces a minimal environmental impact in the
7 Mississippi River in terms of bottom sediment?

8 A Yes, sir. And any impact there is today is
9 less than when the board granted the exception.

10 Q Have there been any improvements to the
11 wastewater treatment plant that might account for less
12 impact showing up now to the extent there is any
13 documented in 1985?

14 A Yes. There are several. One, they made the
15 bar screen modifications that allows the plant to pump
16 at a sustained higher pumping rate. Since that time,
17 they brought on two wet weather storage basins in the
18 sewer system between 1984 and 1999 that would result in
19 less combined sewer overflows down at the main plant.

20 Q Do you know what the current design average
21 flow rate is of that treatment plant?

22 A Yes. It's 8 million gallons per day.

23 Q Do you know what the actual dry weather flow
24 of the plant is currently?

1 A Dry weather flow has declined over time as
2 Rock Island has actually lost population in a
3 significant part of its industrial base. The dry
4 weather flow now is approximately 5.5 million gallons
5 per day which is down from approximately 7 million
6 gallons a day 10 years ago.

7 Q Were you requested by Rock Island to conduct
8 a study in 1997 of the individual treatment plant units
9 to determine which, if any, might be contributing to a
10 bottleneck of the plant?

11 A Yes, sir, I was.

12 Q What's been accepted into evidence as
13 Petitioner's Exhibit 8, the preliminary engineering
14 report, does that contain your calculations as a result
15 of your study?

16 A Yes, sir, it does.

17 Q And what did your study show in your opinion?

18 A From a hydraulic capacity, the primary
19 bottleneck was the secondary clarifiers. There was also
20 a bottleneck in the sludge digestion process as well.

21 Q What did you conclude was the maximum design
22 flow rate of that plant?

23 A Well, under the Illinois recommended design
24 standards that are in effect today, approximately 12

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1 million gallons per day.

2 Q And that would be in order to be able to
3 treat a flow consistently and still meet the current
4 permit limitations?

5 A That, basically, is the number that is used
6 to determine the design maximum flow. So, yes, sir,
7 that's correct.

8 Q In your opinion does Rock Island -- did Rock
9 Island at the time of that study have the physical
10 capability of treating flows in excess of 12 million
11 gallons per day on a sustained basis and still comply
12 with the permit implementation?

13 A No, sir.

14 Q In conducting your review you've analyzed the
15 treatment records for Rock Island, is that correct, in
16 terms of flow rates and looked at the DMR value?

17 A Yes. To some degree.

18 Q You have heard Mr. McSwiggin testify today

19 that regarding the agency's general policy of writing
20 permits with limitations in it that requires that
21 maximum degree -- maximum practical flow is to be
22 treated before using CSOs; is that your general
23 understanding of how municipal permits are written in
24 Illinois?

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1 A Yes, sir.

2 Q At the time you did your study, what do you
3 think Rock Island's ability to treat the maximum
4 practical flow was?

5 A Well, Mr. McSwiggin testified that that
6 number can change from day to day, more so with season
7 to season, and how much like your suspended solids are
8 carried in the aeration basins. But the theoretical
9 number is 12 million gallons a day. So I would
10 anticipate from day to day, it would be somewhere plus
11 or minus that number.

12 Q And is that the figure you understand Rock
13 Island seeks to treat?

14 A Yes, sir.

15 Q As part of your study for Rock Island, did

16 you have an opportunity to review the historical permit

17 documents in the Illinois EPA files?

18 A Yes, I did.

19 Q What can you say in terms of whether or not

20 you agreed with Mr. McSwiggin's testimony concerning the

21 basis of the original design of that treatment plant?

22 A Well, I agreed with everything Mr. McSwiggin

23 said regarding the design basis. To me, the key point

24 was the plant was designed for 8 million gallons a day.

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1 It was also designed, as Mr. Warrington pointed out, for

2 the maximum flow of 16 million gallons a day. The key

3 thing is that under the design standards that were in

4 effect at the time, the design average flow of 8 million

5 gallons a day was used to size the secondary clarifiers.

6 As Mr. McSwiggin pointed out, that we are

7 older and wiser as we sit here in the year 2000, that

8 today one would use the design maximum flow for

9 designing secondary clarifiers, and that was not done at

10 the time that Rock Island's treatment plant was designed

11 back in the 1960s.

12 MR. HARSCH: That would conclude my direct
13 examination. If it's appropriate, I would move for the
14 introduction of Petitioner's Exhibit 17 and 18.

15 HEARING OFFICER KNITTLE: Any objection,
16 Mr. Warrington?

17 MR. WARRINGTON: No objection.

18 HEARING OFFICER KNITTLE: Those will both be
19 admitted. Mr. Warrington, do you have
20 cross-examination?

21 MR. WARRINGTON: Yes.

22 CROSS-EXAMINATION

23 BY MR. WARRINGTON:

24 Q Mr. Huff, I believe you testified that your

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1 1999 sediment survey had an outlier value for mercury?

2 A No, sir.

3 Q I'm sorry. It had an outlier value for
4 another parameter?

5 A Yes, sir.

6 Q And that parameter was --

7 A Zinc.

8 Q Could you perhaps explain for the board what

9 an outlier is?

10 A An outlier is a value that's reported that
11 you don't believe to be representative of the actual
12 conditions. For example, suppose there was a piece of
13 zinc metal that was collected in that sample and that
14 was incorporated into what the laboratory actually
15 analyzed. It certainly wouldn't be representative of
16 the average zinc concentrations of the sediment
17 downstream. That would be an example. Or the
18 laboratory, for whatever reason, mismeasured the zinc
19 value in this case.

20 Q And for the values that you received or had
21 reported to you as a part of this 1999 sediment survey,
22 did the metal concentrations, did they -- strike that.

23 Are you aware of any federal guidelines or
24 documents that would recommend metal concentrations in

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1 sediment as being problematic or not problematic?

2 A No, sir, I am not.

3 Q Mr. Huff, I believe you testified that there
4 was a reduction in your metal concentrations between the

5 1985 sediment survey and then the 1999 sediment survey?

6 A No, sir.

7 Q No. I believe you did testify that the 1999

8 sediment survey metal values were less than the metal

9 values you determined during the CSO exception

10 procedure?

11 A I think what you are referring to was my

12 statement that, while the visual oil sheen was present

13 in 1984, that visual oil and the odor from that oil was

14 totally absent in 1999. The metal values that were

15 found in '84 were below the mean values found below all

16 Illinois municipal treatment plants as published by

17 Kelly and Hite in 1984. And those, we measured four

18 different metals in the 1999 survey, and they also were

19 what would be called either nonelevated or slightly

20 elevated values under Kelly and Hite, but were

21 consistent with the findings previous.

22 Q By consistent, you mean that the reported

23 numerical values were -- were they exact or were they

24 within a few percentage points?

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1 A No. I meant that they were consistent

2 with -- they were below the mean values that had been
3 reported by the IEPA report below municipal wastewater
4 treatment plants.

5 Q And I believe you talked about certain
6 improvements to the treatment plant that might
7 contribute to a lesser impact in '99?

8 A Yes, sir.

9 Q And I believe you also testified that the
10 population and the industrial base of the city has
11 diminished since the 1984 CSO study?

12 A Yes, sir. They have lost three out of their
13 four largest water users in that period of time in the
14 city. That's a major change.

15 Q To your knowledge, were any of these
16 industrial users also potential contributors of metals
17 to the sewer system?

18 A I can't answer that question. Rock Island
19 has a pretreatment program that is consistent with the
20 state and federal requirements in that area.

21 Q Are you personally familiar with the
22 operation of the Rock Island pretreatment system?

23 A I have had some minor involvement in its
24 development back when it was developed, yes, sir.

1 Q And would you conclude that implementation of
2 pretreatment controls by the city would have reduced
3 some metal contributions to the influent?

4 A Theoretically, yes.

5 Q And I believe you also testified that there
6 were some bottlenecks at the main treatment plant. I
7 believe you mentioned the secondary digestors -- or
8 sorry, the secondary clarifiers?

9 A Secondary clarifiers. Yes, sir.

10 Q And there is also some problems with the
11 sludge digesting and handling?

12 A Sludge digestion.

13 Q And could you explain perhaps for the board
14 what that bottleneck was?

15 A The anaerobic digestion process that is
16 utilized by the City, it doesn't afford sufficient
17 retention time for mixing to adequately digest that
18 sludge. So, they are not providing sufficient
19 digestion.

20 Q And what would the effect of that inadequate
21 digestion be on the operations of the plant?

22 A Not significant. I think the primary problem
23 is that you are then hauling out sludge that is not
24 completely digested which would force you to go more to

1 a landfill instead of land application.

2 Q Does that deficiency affect the amount of
3 sludge that you can remove from the secondary
4 clarifiers?

5 A It should not. It depends on how the
6 operations are operated. To the extent they have to
7 remove solids and they can operate their sludge
8 dewatering facilities on the sludge that is not fully
9 digested, then it would have no effect on their ability
10 to remove solids.

11 Q And along with the bottlenecks, would you
12 consider any problems with the incoming grit channel to
13 be a bottleneck, too?

14 A Not a significant one. It can handle
15 approximately 15 million gallons a day before it floods
16 and from -- if you -- assuming you had secondary
17 clarifiers to handle 15 million gallons per day, you
18 could make a temporary fix on those grit chambers and
19 they could run at 16 millions gallons a day in a short
20 period of time.

21 Q What would that fix be?

22 A Extend the walls with a piece of sheet metal.
23 But as long as you've got secondary clarifiers that can
24 only handle 12 million gallons a day, I'm not sure what

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1 you would gain by doing that.

2 MR. WARRINGTON: No further questions.

3 HEARING OFFICER KNITTLE: Mr. Harsch, do you have
4 any redirect?

5 MR. HARSCH: No.

6 HEARING OFFICER KNITTLE: Thank you, sir. You can
7 step down. Mr. Harsch, do you have any other additional
8 witnesses?

9 MR. HARSCH: Not at this time.

10 HEARING OFFICER KNITTLE: Okay. Mr. Warrington,
11 you can start with your case in chief.

12 MR. WARRINGTON: Sure. The agency would like to
13 call Mr. KammueLLer to the stand. Or perhaps if this
14 chair is adequate for the court reporter?

15 HEARING OFFICER KNITTLE: Would that be okay for
16 you?

17 COURT REPORTER: Sure.

18 HEARING OFFICER KNITTLE: Do you have any
19 objection, Mr. Harsch?

20 MR. HARSCH: No.

21 HEARING OFFICER KNITTLE: Sure. You can stay
22 there.

23 (A break was taken in the proceedings.)

24 HEARING OFFICER KNITTLE: We are back on the record

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1 after a short recess, and we are about to commence
2 with --

3 MR. HARSCH: I would like to wait a minute,
4 Mr. Hearing Officer, until my two witnesses return to
5 the room. I think they are in the restroom, if I could.

6 HEARING OFFICER KNITTLE: Yeah. We will start
7 again at 2:30 whether they are here or not.

8 (A break was taken in the proceedings.)

9 HEARING OFFICER KNITTLE: Let's go back on the
10 record. You want to do a stipulation?

11 MR. HARSCH: Right. I forgot to clarify a point
12 with Mr. Huff. I believe after Mr. Huff checked out his
13 files and showed copies to the agency of his notes that
14 we are prepared to stipulate that the conference call

15 between representatives of the agency and Rock Island
16 which resulted in Rock Island's decision not to seek low
17 interest loan and that conference call occurred on
18 January 25th, 1999.

19 HEARING OFFICER KNITTLE: Is that correct,
20 Mr. Warrington?

21 MR. WARRINGTON: That is correct.

22 HEARING OFFICER KNITTLE: Okay. It will be so
23 noted in the record.

24 MR. HARSCH: Thank you very much.

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1 HEARING OFFICER KNITTLE: Do you want to call your
2 witness now?

3 MR. WARRINGTON: Mr. KammueLLer, if you can be
4 sworn.

5 (Witness sworn.)

6 JAMES E. KAMMUELLER,
7 called as a witness, after being first duly sworn, was
8 examined and testified upon his oath as follows:

9 DIRECT EXAMINATION

10 BY MR. WARRINGTON:

11 Q Mr. KammueLLer, could you state your name?

12 A James E. KammueLLer. K-a-m-m-u-e-l-l-e-r.

13 Q Could you state your position?

14 A I'm the regional manager in the EPA Water
15 Pollution Control Peoria Regional Office.

16 MR. WARRINGTON: Mr. Hearing Officer, in lieu
17 of going through Mr. KammueLLer's vitae or job duties,
18 he has prepared a vitae comprised of a description of
19 his job duties, articles, technical policies,
20 procedures, manuals and proposed regulations prepared by
21 Mr. KammueLLer, list of papers, seminar presentations
22 and training courses and seminars attended. And with
23 the concurrence of counsel for the city, we would like
24 to submit these in lieu of developing a verbal vitae for

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1 him.

2 HEARING OFFICER KNITTLE: Mr. Harsch, do you have
3 any objection to that?

4 MR. HARSCH: Absolutely not.

5 HEARING OFFICER KNITTLE: We are going to take this
6 as Respondent's Exhibit 1.

7 MR. WARRINGTON: Could we make it -- since I seem

8 to have to have numbered --

9 HEARING OFFICER KNITTLE: Do you have a number you
10 would like?

11 MR. WARRINGTON: How about number 6?

12 HEARING OFFICER KNITTLE: Sounds good. This will
13 be admitted as Respondent's Exhibit Number 6.

14 BY MR. WARRINGTON:

15 Q Mr. KammueLLer, could you briefly explain for
16 the board your history of involvement with the Rock
17 Island treatment plant?

18 A I began inspecting that plant in December of
19 1978.

20 Q And did you participate in the CSO exception
21 proceeding?

22 A Yes.

23 Q And the nature of that participation was?

24 A I was involved with the review of the

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1 application, some sediment sampling in the river,
2 treatment plant observations, inspections that I had
3 done that were used. And I was involved with helping to

4 develop a compliance plan, if you will, that the City
5 was to follow in implementing the CSO exception process
6 in their MCP, municipal compliance plan.

7 Q During your inspections of the plant during
8 the time of this CSO exception procedure, were you aware
9 of the plant's performance under high flow conditions?

10 A Yes.

11 Q Could you describe how the plant reacted to
12 flows above the design average flow?

13 A It had been presented to me that the plant
14 could handle a peak flow of 15.8 MGD with three quarters
15 of an inch of freeboard remaining in the grit channels.
16 It had also been presented to me that the plant could
17 continuously treat 13 to 14 million gallons per day.

18 Q And what happens if more than that number of
19 million gallons arrived on any particular day?

20 A Well, the grit channels could overflow at
21 flows around 16 MGD, and there could be a loss of
22 salvage from the final clarifiers. And that's
23 associated, though, with, in my opinion, the plant being
24 behind on sludge handling and having too many solids in

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1 the treatment process. In other words, the solids
2 loading to the final clarifiers was heavier than what it
3 needed to be. And perhaps if it was lower, the plant
4 could have handled higher flows more consistently.

5 Q In your duties regarding the Rock Island
6 treatment plant, did you have the occasion to inspect
7 the shoreline downstream or upstream of the various
8 outfalls?

9 A Yes.

10 Q And what would -- could you basically
11 describe your inspection strategy?

12 A I've looked at the shoreline on a number of
13 occasions throughout the 21-year period I have been
14 inspecting the plant. I had began looking at it
15 certainly in more detail back in 1998. And during those
16 times, I've found what I call sanitary debris; that is,
17 personal hygiene items are found in sanitary sewage or
18 combined sewage. They tend to be on the shoreline or in
19 the water.

20 Q What would be the significance of the hygiene
21 items found in the river?

22 A Well, they present an aesthetic problem and
23 potentially, I guess, some public health threat or
24 nuisance if people were to come into contact with them.

1 Q And did you identify such items in areas of
2 the shoreline that the public did have access to?

3 A Yes.

4 Q Was it your normal practice to write up the
5 results of your inspections in the terms of a written
6 report?

7 A Yes.

8 Q And that written report would be accompanied
9 by photographs in some cases?

10 A Usually.

11 Q Calling your attention to Exhibit H in the
12 agency's amended variance recommendation. Do you want
13 to try to find H or not?

14 MR. HARSCH: (Shaking head back and forth.)

15 MR. WARRINGTON: Okay.

16 BY MR. WARRINGTON:

17 Q And showing you what is included in that
18 amended variance recommendation, is that a report of
19 your inspections on August 5th, 1998?

20 A Yes.

21 Q And at the end of that report, does this
22 report itemize some of these debris items that you have
23 found during that inspection?

24 A Yes, it does.

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1 Q And at the end of the report we have a map.

2 And does the map identify approximately where this
3 inspection took place?

4 A Yes. I should correct one thing, though.

5 What I have labeled there as the Sunset launch is
6 actually the 18th Avenue launch.

7 Q Okay. Thank you.

8 And after the map is corrected, we find some
9 xerox copies of pictures taken by you on that date?

10 A Yes.

11 Q And these are black and white xerox copies in
12 the amended recommendation?

13 A Yes.

14 Q Did you bring color copies of these same
15 photos for the board today?

16 A Yes.

17 Q Handing you what's been marked as Exhibit 1,
18 could you review those photographs?

19 MR. HARSCH: Mr. Warrington, I have no problem as
20 long as the witness will simply state that these are

21 color copies of those black and white photographs that
22 accompany his various reports. And we can dispense with
23 laying of any foundation.

24 HEARING OFFICER KNITTLE: It's up to you,

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1 Mr. Warrington, whether you want to lay it or not.

2 MR. WARRINGTON: I most appreciate it. Make sure
3 we have -- there is an inspection on August 5th that's
4 comprised of both Exhibit 1 and Exhibit 2.

5 BY MR. WARRINGTON:

6 Q The pictures of Exhibit 3, Mr. Kammueler, if
7 you recall which date the pictures in Exhibit 3 were
8 taken?

9 A Yes. October 22nd.

10 Q October 22nd for Exhibit Number 3.

11 How about Exhibit Number 4?

12 A These would be November the 2nd of '98.

13 Q And Exhibit Number 5?

14 A It would have been August 24th, 1999.

15 MR. WARRINGTON: If counsel for the city would so
16 stipulate to their admission, we would move for their

17 admission as being true and accurate representations of
18 the observations of Mr. KammueLLer.

19 HEARING OFFICER KNITTLE: Mr. Harsch?

20 MR. HARSCH: I will stipulate to that.

21 HEARING OFFICER KNITTLE: This is Respondent's
22 Numbers 1, 2, 3, 4 and 5.

23 MR. WARRINGTON: And at this point we move to admit
24 them along with Exhibit Number 6, Mr. KammueLLer's

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1 vitae.

2 HEARING OFFICER KNITTLE: I think I have already
3 admitted, at least on my notes, Exhibit 6; and I will
4 now admit Respondent's 1 through 5 since there is no
5 objection from Mr. Harsch. Those are admitted.

6 MR. WARRINGTON: I think that's all we have to get
7 you to say. Or were you going to say something else?

8 THE WITNESS: You might want to point out that, for
9 example, the August 5th, 1998, memo there were 14 photos
10 attached to that memorandum, but I did not make copies
11 of all of those for today's proceedings. I just copied
12 certain ones to really just save on processing costs.

13 BY MR. WARRINGTON:

14 Q Among the photos that you did submit today,
15 is there a photo of a dark or discolored plume coming
16 from the outfall?

17 A Yes. On November the 2nd of 1998, I did
18 photograph such a plume.

19 MR. HARSCH: Sorry, what was that date?

20 THE WITNESS: November the 2nd, 1998.

21 Q And based on that observation, did you reach
22 any conclusion as to the source of that dark discolored
23 plume?

24 A Yes. It was coming from the treatment plant

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1 outfall. And on that date they were discharging both
2 fully treated effluent and also were bypassing some of
3 the influent raw sewage directly through the outfall.

4 Q Is that the same outfall that receives both
5 bypass sewage and regular average discharges?

6 A Yes. And one outfall handles both fully
7 treated and bypass flows.

8 MR. WARRINGTON: I have no further questions.

9 HEARING OFFICER KNITTLE: I want to jump in before

10 you do, Mr. Harsch. I just want to get this clear for
11 the board. Respondent's Exhibits 1 and 2 are dated
12 8/5/98.

13 MR. WARRINGTON: That's correct.

14 HEARING OFFICER KNITTLE: But the rest don't have
15 dates on them. Can you give those to me so I can know.

16 MR. WARRINGTON: Okay. One more time.

17 HEARING OFFICER KNITTLE: Yeah. Well, it's
18 probably on the record, but I want to put it on the
19 exhibits just to make it clear for the board. I can
20 write them in there if you want.

21 MR. WARRINGTON: Starting from number 3.

22 HEARING OFFICER KNITTLE: Number 3.

23 THE WITNESS: Let's see which one you have there.
24 That's October 22nd,

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1 HEARING OFFICER KNITTLE: 90--

2 THE WITNESS: '98.

3 HEARING OFFICER KNITTLE: Okay. Is that the same
4 as 4?

5 THE WITNESS: And 4 is November 2nd of '98.

6 HEARING OFFICER KNITTLE: And 5?

7 THE WITNESS: Would be August 24th of '99.

8 HEARING OFFICER KNITTLE: All right. Thank you.

9 THE WITNESS: Thank you.

10 HEARING OFFICER KNITTLE: Mr. Harsch, any
11 cross-examination?

12 CROSS-EXAMINATION

13 BY MR. HARSCH:

14 Q I have a couple of questions, I guess, on
15 some of these photographs. In your point of
16 clarification that hadn't come out before when we talked
17 about introducing these, you mentioned that at least one
18 set of them you only made a limited number of
19 copies -- copies of a limited number of the photographs.
20 Which one was that?

21 A I probably better look at them again for you,
22 Mr. Harsch, and tell you for sure which ones I did that.
23 August 5th there were 14 photos.

24 Q I'm sorry. I still don't follow how you

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1 chose to make copies of some and not copies of all the
2 other pictures?

3 A I can show you on my original photographs.
4 There are some that are rather similar. Rather than
5 copy each and every one of those, I just copied certain
6 ones to avoid duplicity and to save on copying costs. I
7 would be happy to go through the report with you,
8 Mr. Harsch, and show you the individual photographs and
9 which ones I made the enlargements of.

10 Q When you conducted these shoreline
11 inspections, did you pick up the items you found?

12 A No. I made no attempt to disturb them. They
13 were left in place and viewed and photographed as I
14 found them.

15 Q Apart from the physical location, do you have
16 any evidence that those would have been discharged from
17 the City of Rock Island?

18 A Based on my upstream observations, yes.

19 Q What was that evidence?

20 A There was nothing found upstream of their
21 outfall.

22 Q Is it your testimony, then, that you
23 found -- in doing your shoreline inspection that you
24 didn't find any sanitary debris during your inspections

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1 upstream of the main Rock Island sewage treatment plant
2 discharge?

3 A No. I did not find debris immediately
4 upstream of their outfall. On days when I checked above
5 the outfall, for example, on my August '99 inspection, I
6 did find something upstream, but very little; and I can
7 go through that with you, if you like, in my report.

8 Q As you move downstream from the main outfall,
9 you move towards the boat marina, is that correct, that
10 Mr. Hawes testified to?

11 A Yes. There are two boat launches there.

12 Q Now, you would expect more boat traffic
13 downstream and more opportunity for waste potentially
14 being discharged from those?

15 A No. That's a little over a half mile in
16 distance, and I don't think that there is any more or
17 less boating in that very short stretch of the river.
18 In fact, as I walked downstream of the outfall, you get
19 nearer to the outlet of the Sunset Marina where people
20 might just be leaving and heading, say, upstream if they
21 are going that way or downstream if they are going the
22 other direction.

23 So, I don't think that -- my opinion is that
24 pleasure boaters aren't responsible for what I find in

1 the river. It's been my experience that what comes from
2 that outfall tends to move to a great degree out into
3 the river channel. While some does come ashore, I think
4 that if someone was in a boat in the river channel and
5 would throw something like that overboard and not do it
6 at home for some strange reason, it would probably stay
7 in the channel and move on downstream that way.

8 Q It's also possible that somebody would empty
9 their tank before they bring their boat out of the
10 river; isn't that correct?

11 A If so, then they would probably do that down
12 near the marina, and I don't go down that far. And that
13 debris would then drift on downstream from that point.

14 Q Did you ever yourself provide the City of
15 Rock Island with any of your inspection reports on these
16 photographs prior to Rock Island learning about them
17 through a Freedom of Information Act request? Isn't
18 that, in fact, how Rock Island had to find out about
19 your inspection reports?

20 A I would need to check my report, but I think
21 whenever I -- well, in most cases, when I did a
22 shoreline inspection, I went to the treatment plant

23 also. And I would have to go back through the various
24 reports and see what days that I went to the plant. And

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1 had I gone to the plant, I think I would have discussed
2 my findings with the operators on duty.

3 Q Did you ever provide Rock Island -- prior to
4 Rock Island's obtaining these reports through a Freedom
5 of Information Act request, did you ever provide Rock
6 Island with a copy of your reports and photographs?

7 A I would not be allowed to do that. They
8 would have to get that through the Freedom of
9 Information Act process.

10 Q So, the answer is, no, you did not?

11 A Yes. Because I'm not allowed to.

12 MR. HARSCH: I need about two minutes.

13 HEARING OFFICER KNITTLE: Let's go off the record,
14 please.

15 (Off the record.)

16 HEARING OFFICER KNITTLE: We are back on the
17 record. Mr. Harsch, it is still your opportunity to
18 cross-examine this witness. You are still under oath.

19 THE WITNESS: Okay.

20 BY MR. HARSCH:

21 Q Mr. KammueLLer, do you have an opinion as to
22 whether or not if Rock Island had the physical ability
23 to treat 16 million gallons per day as a design maximum
24 flow figure, it would eliminate what you have observed

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1 or said may be an unacceptable condition along the
2 shoreline?

3 A You are asking if I feel if they fully treat
4 16 MGD if that will eliminate this debris I am finding?

5 Q Yes.

6 A No, sir. I don't think it will.

7 Q Then whether Rock Island treats 12 MGD or 16
8 MGD, it really doesn't make any difference in your
9 opinion. It's still going to be in unacceptable
10 condition; is that correct?

11 A I don't like to take that approach. I mean,
12 they have told me before that --

13 Q Mr. KammueLLer, the question is --

14 MR. WARRINGTON: You just have to answer the
15 question.

16 A Well, there is more than just a simplistic
17 answer involved here, but I think if they treat 16
18 instead of 12, they certainly will have the chance of
19 capturing more of that debris. So the more they treat,
20 the more debris they are going to capture. But they
21 will still discharge debris above 16 MGD because they
22 receive flows much greater than that at times. So, I
23 think -- well, I think it will make a difference. Every
24 little bit helps.

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1 Q You testified that you participated on behalf
2 of the agency in the CSO proceeding. Did you testify in
3 that proceeding?

4 A No.

5 Q Prior to your initiation of your shoreline
6 inspection in 1998, you were aware that Rock Island had
7 committed to carry out a shoreline inspection program,
8 were you not?

9 A Yes.

10 Q You were present at that October '97 meeting
11 when Rock Island made that commitment?

12 A Yes.

13 MR. HARSCH: I have no further cross.

14 HEARING OFFICER KNITTLE: Do you have any redirect,

15 Mr. Warrington?

16 REDIRECT-EXAMINATION

17 BY MR. WARRINGTON:

18 Q Regarding the shoreline inspection program,

19 have you seen the reports submitted by the City

20 regarding the statistics of the debris that they found

21 and removed?

22 A What I have seen so far has been what they

23 presented at our November 10th, I believe, 1999, meeting

24 that we had at city hall. And also I think today they

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1 have that as Exhibit Number 15. I have seen and

2 reviewed some of that. In fact, at the November 10,

3 1999, meeting, I requested information from them, just

4 two dates of their observations which they did send to

5 me, and I reviewed that earlier this year.

6 Q Did you form any conclusions from there about

7 their reports that they sent you?

8 A Yes, I did.

9 Q And that is?

10 A Well, they are depicting what they find as an
11 average accumulation of debris below the outfalls, in
12 particular, outfall OO1A which is now AO1; and they have
13 some numbers in there that I find that concern me. They
14 appear to be misleading. They appear to be very low as
15 far as the number of debris that is actually found,
16 when, in fact, my reports, my inspection reports and
17 observations and their observations indicate that much
18 higher numbers of debris are actually found.

19 Q And why would that be?

20 A They use an averaging technique when they
21 made these computations. And I feel that if they really
22 want to compare things accurately, they should form
23 their average based on, for example, the average number
24 of debris from each outfall; and that's taken by adding

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1 up the number of debris found and dividing by the total
2 number of sampling days, not by the total number of days
3 in the sampling period.

4 And I also feel that if they want to compare
5 data with us, they should have compared days of

6 discharge events to days of nondischarge events and not
7 try to mix them together to, again, give what I feel is
8 a dissolutional effect to the numbers they presented in
9 Exhibit 15.

10 MR. WARRINGTON: No further questions.

11 HEARING OFFICER KNITTLE: Mr. Harsch, do you have
12 any recross on that issue?

13 RECROSS-EXAMINATION

14 BY MR. HARSCH:

15 Q Mr. KammueLLer, you had available to you Rock
16 Island's records of what they actually picked up --
17 found and picked up on those days, did you not?

18 A For two days.

19 Q And those were the only two days you asked
20 for, and those were provided to you; is that correct?

21 A Yes, sir.

22 Q And you are aware that Rock Island maintains
23 a log for every day they go out there and sample that
24 river bank; is that correct?

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1 A I'm told that's correct. I don't know. I've

2 not seen --

3 Q And you have never asked for any other days
4 to look at?

5 A That's correct. And there is a reason for
6 that. We were told last November that there was a large
7 amount of data and it would be better to pick just a
8 couple of days. So I picked --

9 Q If you have any concerns about the City of
10 Rock Island misleading you as a representative of the
11 Illinois Environmental Protection Agency or misleading
12 the Pollution Control Board and if you need any data
13 that Rock Island maintains, I would please ask you to
14 ask for that data so Rock Island can provide that data
15 to you.

16 Do you have any reason to believe Rock Island
17 would not have provided that data to you had you asked
18 for it?

19 A Well, I'm sure they would have.

20 Q Is there a significant difference between
21 your inspections and Rock Island's inspections in that
22 they pick up the materials that you find to be
23 offensible when you find it on the river bank?

24 A I'm not sure I understand what you are

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1 asking.

2 Q Do they pick up the materials that they find
3 on the river bank; is that your understanding?

4 A That's my understanding, yes.

5 Q And you do not?

6 A That's correct.

7 MR. HARSCH: No further questions.

8 HEARING OFFICER KNITTLE: Re-redirect,
9 Mr. Warrington?

10 MR. WARRINGTON: No. We have none.

11 HEARING OFFICER KNITTLE: Thank you, sir. You can
12 step down even though you are in your own chair, but you
13 are no longer on the witness stand.

14 HEARING OFFICER KNITTLE: Do you have another
15 witness, Mr. Warrington?

16 MR. WARRINGTON: No. We do not.

17 MR. HARSCH: I have a rebuttal witness.

18 HEARING OFFICER KNITTLE: Okay. You can call your
19 rebuttal witness, Mr. Harsch.

20 COURT REPORTER: Should I reswear him?

21 HEARING OFFICER KNITTLE: Yeah. We will reswear
22 him. Better safe than sorry.

23 We are going to reswear you, if you don't mind.

24 (Witness sworn.)

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

4 HEARING OFFICER KNITTLE: Mr. Harsch.

5 DIRECT EXAMINATION

6 BY MR. HARSCH:

7 Q You have heard Mr. KammueLLer testify of an
8 observation of a dark plume on, I believe, November 2nd,
9 1998; is that correct?

10 A Yes.

11 Q If I show you the records that Rock Island
12 has been maintaining of CSO activities marked Petitioner
13 Exhibit 14 for the record, can you tell me if, based on
14 that, Rock Island was having a CSO event that day?

15 A Yes. It shows that there was a -- last
16 November 2nd it shows that it was a 10-hour CSO event
17 that day.

18 Q So, bypassing would have been CSO not a
19 bypass of normal raw domestic sanitary sewage; is that
20 correct?

21 A Correct.

22 Q Has Rock Island undertaken a series -- or
23 undertaken steps to address what Mr. Kammuehler has
24 referred to on previous occasions as a dark plume?

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1 A Yes.

2 Q And what is that step?

3 A We put a small continuous discharge pump in
4 the wet well. It's actually a storm wet well that
5 receives infiltration and also receives the sludge from
6 our water treatment plant so that it's discharged
7 continuously rather than building up to the point where
8 a very large capacity pump kicks on and empties the wet
9 well. And in dry weather that material could sit in
10 there for a substantial amount of time before it builds
11 up to a depth where the large pump would kick on.

12 Q Again, Rock Island has discussed that program
13 with representatives of the agency?

14 A Right. That's what we committed to do.

15 Q Would you, again, clarify for the record what
16 the basis is for Rock Island's reporting of the -- or
17 maintaining records of the CSO events which are set
18 forth in Petitioner's Exhibit 15?

19 A All right. I guess, first of all, I will
20 explain how we get it. We go out and pick it up and
21 categorize it, and we count it for each day that we do a
22 collection. We don't do that every single day. What we
23 recorded in this Exhibit 15 is an attempt to take the
24 raw numbers and convert them to a common unit of

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1 measure; and we chose items of debris per day.
2 So, again, if it's been a week since we did
3 the last collection, we take however many items we found
4 in that week and divide that by seven days so that the
5 numbers on this chart reflect a standard unit of measure
6 as opposed to raw numbers. But the raw numbers are, of
7 course, available because that's what we use to get
8 these numbers.

9 Q Are those reports available to Mr. Kammuller
10 if he had ever asked?

11 A Sure.

12 Q And you have discussed with representatives
13 of the agency on several occasions your sampling plan
14 and how you are maintaining the records?

15 A Yes.

16 Q Has anyone from the agency ever accused you
17 or the City of Rock Island of misleading procedures and
18 maintaining these records before?

19 A No.

20 MR. HARSCH: I have no further questions.

21 HEARING OFFICER KNITTLE: Mr. Warrington, do you
22 have any cross-examination?

23 MR. WARRINGTON: Just maybe a point to clarify for
24 the board.

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1 CROSS-EXAMINATION

2 BY MR. WARRINGTON:

3 Q The dark plume observed was during a day
4 recorded as a CSO overflow event?

5 A There was a 10-hour event on that day, yes.

6 Q And my understanding of that is a CSO
7 discharge itself tends to be fairly dilute and uncolored
8 so if the CSO discharge didn't cause this black plume,
9 what would be your guess as to what was the source of
10 the dark material?

11 A I have no idea without seeing it. I wouldn't

12 characterize a CSO as necessarily clear.

13 Q Oh, okay. As a control measure, you have put
14 in what you have described as a small discharge pump in
15 the wet well of the outfall?

16 A Well, one of the wet wells, it comes into the
17 plant.

18 Q And this discharge pump pumps the -- I assume
19 the bottom contents of the well into the river. Do you
20 know what the bottom contents of the wet well are?

21 A Yes. They are infiltration and water
22 treatment sludge from the water treatment plant.

23 Q Did you have any -- or do you take like
24 measurements of the quantity that this pump might

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1 discharge?

2 A No.

3 MR. WARRINGTON: No further questions.

4 HEARING OFFICER KNITTLE: Redirect, Mr. Harsch?

5 MR. HARSCH: No.

6 HEARING OFFICER KNITTLE: Thank you, sir. You can
7 step down.

8 I want to note once again for the record that
9 there are no members of the public here to provide
10 public comment.

11 Before I get started, Mr. Harsch, do you have
12 any other witnesses in rebuttal?

13 MR. HARSCH: No, I do not.

14 THE HEARING OFFICERS: There are no members of the
15 public here to provide comment. I want to go off the
16 record for a second, though, to talk about closing
17 arguments.

18 (Discussion off the record.)

19 HEARING OFFICER KNITTLE: We are back on the record
20 pursuant to an off-the-record discussion. Both parties
21 have agreed to waive closing arguments. Is that
22 correct, Mr. Harsch?

23 MR. HARSCH: Yes.

24 HEARING OFFICER KNITTLE: Mr. Warrington?

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1 MR. WARRINGTON: Yes.

2 HEARING OFFICER KNITTLE: Are there any motions
3 that we have to entertain before we close this case,
4 Mr. Harsch?

5 MR. HARSCH: No.

6 HEARING OFFICER KNITTLE: Mr. Warrington?

7 MR. WARRINGTON: None.

8 HEARING OFFICER KNITTLE: Also pursuant to an
9 off-the-record discussion, the parties are going to set
10 up a briefing schedule at the conclusion of the second
11 hearing which is PCBOO73, and we will address it at that
12 time.

13 I have to make a credibility determination
14 according to the board's procedural rules. Based on my
15 experience and legal expertise, I find no credibility
16 issues exist in this case. I found all witnesses to be
17 credible, and this matter is closed. Thank you.

18

19

20

21 (Whereupon, the hearing concluded at

22 3:15 p.m.)

23

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