

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

- - - - -X

GENERAL PUBLIC UTILITIES CORPORATION, :
JERSEY CENTRAL POWER & LIGHT COMPANY, :
METROPOLITAN EDISON COMPANY and :
PENNSYLVANIA ELECTRIC COMPANY, :

Plaintiffs,

80 CIV. 1683

:(R.O.)

-against-

THE BABCOCK & WILCOX COMPANY and :
J. RAY McDERMOTT & CO., INC., :

Defendants. :

- - - - -X

Continued deposition of WILLIAM E.

POTTS, taken by Defendants, pursuant to
adjournment, at the offices of Davis Polk &
Wardwell, Esqs., One Chase Manhattan Plaza,
New York, New York, on Friday, January 8, 1982,
at 9:45 o'clock in the forenoon, before
Robert Capuzelo, a Shorthand Reporter and
Notary Public within and for the State of
New York.

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PDR ADOCK 05000289
T PDR



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CHARLES SHAPIRO, C.S.R.

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Also Present:

SUSAN HANSON, Paralegal
Davis Polk & Wardwell, Esqs.

* * *

1
2 W I L L I A M E. P O T T S, resumed, having
3 been previously duly sworn, was examined and
4 testified further as follows:

5 MR. KIRSCHBAUM: Last night I had an
6 opportunity to discuss with Richard Seltzer, who
7 has taken a large number of the depositions in
8 this action, my instruction to the witness
9 yesterday not to answer certain questions
10 concerning his understanding of certain matters.

11 Mr. Seltzer informed me that Davis, Polk
12 has now taken to citing our instructions of that
13 nature which were themselves intended as a response
14 to their instructions of that nature as a further
15 pretext for continuing the practice which we have
16 from the outset disapproved of, that is, the
17 practice of instructing the witnesses not to
18 answer.

19 Therefore, in the interest and the hope of
20 having both sides permit their witnesses to
21 answer questions of that nature, we have decided
22 to withdraw that objection, that series of
23 objections and the witness will be permitted
24 to answer questions as to his understanding of
25 matters such as those covered in certain questions

1
2 yesterday.

3 MS. WAGNER: Thank you for your statement.

4 EXAMINATION (Cont'd.)

5 BY MS. WAGNER:

6 Q Mr. Potts, are you aware that you are still
7 under oath today?

8 A Yes.

9 Q Have you ever heard of somebody who worked
10 at Three Mile Island called A. R. Joyce?

11 A I don't recall that name.

12 Q How about C. J. Hagerty?

13 A I don't recall that name.

14 Q M. J. Perlmutter?

15 A No, I don't recall that name.

16 Q F. J. Mulligan?

17 A No.

18 Q Or E. C. Fuller?

19 A No.

20 Q I would like to show you now a document
21 which has been previously marked as part of an exhibit,
22 B&W 208. These are selected pages from that exhibit and
23 these pages are a portion of the issue of "Nuclear
24 Power Experience" dated July 1978. It concerns the
25 Davis-Besse transient in September of 1977.

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2 I would like you to review the document
3 and tell me if you have ever seen it before, this
4 particular document.

5 MS. WAGNER: I will note this is a microfilmed
6 version reduced in size.

7 Q If you saw the original, it probably would
8 have looked a little larger.

9 MR. KIRSCHBAUM: Is this B&W 208 or part
10 of 208?

11 MS. WAGNER: Part.

12 MR. KIRSCHBAUM: Is there any reason not to
13 show the witness the entire exhibit?

14 MS. WAGNER: I don't believe the witness
15 has any familiarity with -- let's go off the
16 record.

17 (Discussion off the record.)

18 A I don't recall this document.

19 Q Do you recall having seen issues of
20 "Nuclear Power Experience" other than this one?

21 A Is this from "Nuclear Power Experience"?

22 Q My understanding is that it is, yes.

23 A I don't recall "Nuclear Power Experience."
24 It's not stated here.

25 Q I think there is a little title in the lower

1
2 left-hand corner which is entirely illegible but I
3 believe that is what the document says.

4 MR. KIRSCHBAUM: Where?

5 MS. WAGNER: I'm sorry, the lower right-hand
6 corner.

7 MR. KIRSCHBAUM: On our copies, I would have
8 to say that is completely illegible.

9 Q Do you recall having seen "Nuclear Power
10 Experience"?

11 A I don't recall "Nuclear Power Experience,"
12 no.

13 Q Mr. Potts, we had talked sometime yesterday
14 about the GRC-2.

15 Do you recall that GRC-2 was responsible
16 for reviewing procedures for TMI-2?

17 A I recall from the documents you showed me
18 yesterday that the GRC had some responsibility of
19 reviewing procedures but prior to seeing that document,
20 I don't recall.

21 Q You don't recall yourself reviewing
22 procedures as part of GRC-2's function?

23 A No.

24 MR. KIRSCHBAUM: I think it should be noted
25 the witness testified yesterday he didn't recall

being on GRC-2.

Q Mr. Potts, during any time that you were employed at Metropolitan Edison prior to the time of the accident, did you become aware of any instances in which TMI-2 suffered a reactor trip because of condensate polisher problems?

A I don't recall being aware of that at any time.

Q Did you have any discussions at any time with respect to the condensate polishing systems of TMI-2?

MR. KIRSCHBAUM: Pre-accident?

MS. WAGNER: Yes, and with anybody.

A I don't recall those discussions, if I had any.

Q Do you recall whether during the time that you were supervisor of Licensing there was any discussion concerning a bypass of the condensate polishing system in TMI-2?

A No.

Q Did you have any understanding then as to whether if such a bypass of this condensate polishing system were being considered, that would have been a matter that Licensing would have reviewed?

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2 MR. KIRSCHBAUM: An understanding when he
3 was supervisor of Licensing?

4 MS. WAGNER: Yes.

5 A Ask your question again for me, please.

6 Q When you were supervisor of Licensing, did
7 Licensing have any responsibility for reviewing changes
8 in the hardware of TMI-2?

9 A Yes, if those would have required submittal
10 to the regulatory bodies.

11 Q Would any change in a piece of equipment
12 which was related to the nuclear steam supply system
13 have required such a report to the regulatory bodies?

14 MR. KIRSCHBAUM: Any or all?

15 MS. WAGNER: Any. All, I guess, is what I
16 mean. All.

17 A I don't recall if all would have.

18 Q But you do recall that some would have?

19 A Yes.

20 Q Do you recall whether or not a change which
21 would have resulted in a bypass of the condensate
22 polishing system was a matter such as would have to be
23 reported to the regulatory bodies?

24 MR. KIRSCHBAUM: Are you asking if he recalls
25 now as a supervisor of Licensing to that effect?

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MS. WAGNER: Right.

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A I don't recall now.

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Q During the time period you were supervisor of Licensing, did it ever come to your attention that an event had occurred at TMI-2 which resulted in the trapping of the steam in the hot leg or hot legs of TMI-2?

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A No.

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Q Prior to the time that fuel was loaded into TMI-2, was there any method similar to the licensee event report system by which transients would be reported to the NRC?

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MR. KIRSCHBAUM: Read the question back, please.

(Record was read back.)

A I don't know.

Q You have no recollection at this time that during the time you were supervisor of Licensing there was any such system in place?

A That's correct.

Q Do you recall an event which occurred at TMI-2 in April of 1978 which resulted in a reactor trip and cooldown of the system?

A I don't recall April.

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Q Do you recall such an event, a cooldown caused by steam relief valves opening?

A Yes.

Q How did you first hear about that event?

A I don't recall how I first heard about it.

Q Do you recall who told you about it?

A No.

Q Do you think you were in the control room at the time?

A No, I was not in the control room.

Q What did you hear about the event?

MR. KIRSCHBAUM: Pre-accident?

MS. WAGNER: Pre-accident.

A I don't know what caused the trip but during the trip, the steam relief valves opened and several failed to reseal or close.

Q Do you recall hearing anything else about the event?

MR. KIRSCHBAUM: Pre-accident?

MS. WAGNER: All my questions are pre-accident.

A Pressurizer level was very low and there was a discussion as to was it below indication or below-- did it leave the pressurizer.

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Q Is this the same discussion that you were testifying about yesterday toward the end of the day?

MR. KIRSCHBAUM: Objection. I don't believe the witness has in front of him the testimony from yesterday and, therefore, I am not clear that he would know what you are referring to precisely.

Q Do you recall anything else about the effect of this transient on the primary system of TMI-2?

A The effect was a shutdown and an engineering effort on the relief valves that consumed some period of time. I don't recall the period of time.

Q Do you recall having heard anything else about the effect of the transient on the fluid in the primary system?

A There was also an analysis or a discussion as to whether or not a bubble had developed underneath the reactor head.

Q Was any conclusion reached?

A There was a conclusion reached by B&W that a bubble was not drawn and there was a conclusion reached by GPU that a bubble was drawn and they were in the process of discussing which was, in fact, the case.

Q Did the Licensing Department play any role

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in the analyses or discussions with respect to the
bubble?

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A No.

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Q To the best of your recollection, did this
transient result in the filing of any 10 CFR Part 21
reports?

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MR. KIRSCHBAUM: By anyone?

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MS. WAGNER: By Metropolitan Edison or
General Public Utilities.

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A I don't recall.

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Q I will show you a document previously
marked as Defendants' Exhibit 186. It is a task force
report also known as TDR 001 concerning the April 23rd
transient. It is the first document in this notebook
here.

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I would like to ask you whether you have
ever seen that document before?

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MR. KIRSCHBAUM: TDR 001?

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MS. WAGNER: Yes.

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Q You are welcome, of course, to read the
whole document. But if you have any recollection
having read what you have now whether you have ever
seen it before, perhaps that would help.

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A I don't recall having seen this document

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prior to the accident, but it's the incident we were discussing this morning, the turbine bypass valves -- excuse me, the turbine relief valves.

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Q You don't recall having been part of the task force that generated this document?

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A That's correct. I was not part of the task force.

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Q And you don't think you saw it before the accident, the report?

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A I don't recall having seen it.

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Q I would like you to turn to the page which is -- look at the lower right-hand corner at the production number, the page is 12470585. That is about half way through the document.

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This document has been previously identified as a report done at Metropolitan Edison concerning the same incident. I would like to ask you if you recall seeing this particular document independently of the task force report.

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MR. KIRSCHBAUM: What are we referring to, Attachment 1?

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MS. WAGNER: Yes.

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MR. KIRSCHBAUM: In its entirety?

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MS. WAGNER: In its entirety.

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2 MR. KIRSCHBAUM: The question is whether
3 he recalls seeing that separate from the entire
4 task force report?

5 MS. WAGNER: Yes. It is part of the task
6 force report but it was also issued independently
7 of the task force report.

8 A I don't recall seeing this prior to the
9 accident.

10 Q Do you recall being part of a group who was
11 reviewing this transient, a group at Met Ed as opposed
12 to GPU?

13 A No.

14 Q Finally, I would like you to turn to
15 production page number 12470617 which is a letter from
16 Babcock & Wilcox to G. P. Miller dated May 2, 1978 and
17 I would like to ask you if you have seen that letter
18 before.

19 MR. KIRSCHBAUM: In my copy something is
20 wrong. I have '0663 which doesn't appear to be
21 part of the letter to Mr. Miller and following
22 that is '0618.

23 MS. WAGNER: Off the record.

24 (Discussion off the record.)

25 Q The letter to which I am referring is

12470617 through '0623.

MR. KIRSCHBAUM: This letter is, I see -- it follows a page which says "Appendix D." Are you asking if he saw this letter separate from the appendices? Just this letter?

MS. WAGNER: That's right.

A One of the attachments mentioned in the letter is not within the number of pages that you gave me, I don't think.

I don't recall having seen this letter prior to the accident.

Q Did you see it after the accident?

A I don't recall having seen the letter after the accident, no.

Q I would like to refer you now, please, to a document which was previously marked as B&W 188. That is under tab 2 in the notebook, TDR No. 006, and is entitled "EPRI RETRAN Working Group," and it is an analysis of the April 23rd transient, also.

Again, my question is, have you seen this document before?

A I don't recall having seen this document.

Q The first page of the document indicates that you were on a distribution list but to be sent the

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2 cover page only.

3 Do you recall having seen the cover page?

4 A I don't recall having seen the cover page.

5 Q Do you know any reason why you would be sent
6 this cover page without any attachments?

7 A No, I don't.

8 Q Do you know what RETRAN is?

9 A Yes.

10 Q What is it?

11 A It's a computer code.

12 Q Were you ever involved in using that
13 computer code?

14 A No.

15 Q Were you aware that the computer code had
16 been used in some respect with regard to the April 23rd
17 transient?

18 MR. KIRSCHBAUM: Was he aware before the
19 accident?

20 MS. WAGNER: Before the accident, yes.

21 A I'm not certain about the April 23rd part.
22 I was aware RETRAN was used.

23 Q With respect to the overcooling transient
24 we spoke about?

25 A The overcooling from the turbine relief

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valves.

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Q Did you know prior to the accident why a RETRAN analysis would have been done of the overcooling transient?

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A I don't recall why it was used.

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Q Do you recall having learned any conclusions reached as a result of the use of the RETRAN code?

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MR. KIRSCHBAUM: Does he recall --

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MS. WAGNER: Before the accident.

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MR. KIRSCHBAUM: Does he recall hearing of the conclusions as a result of the RETRAN code being used?

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MS. WAGNER: Right.

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A As I testified earlier, there were some results that were questioned between B&W and GPU on this cooldown.

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Q Have you understood that the results, that the conclusion that GPU had reached was as a result of using the RETRAN code?

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A Yes.

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Q How did you learn about that conclusion?

23

A I don't recall how I learned of that.

24

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Q Is it correct that you testified that the conclusion GPU came to was that a bubble had formed in

1 the upper head of the reactor during the transient?

2 A Yes.

3 Q Did you have any conversations with anybody
4 concerning that conclusion?

5 A I just don't recall whether that is how I
6 found out, by way of conversation or how.

7 Q Regardless how you found out about it, do
8 you recall whether you spoke about it with anybody?

9 A No.

10 Q Did that conclusion cause you any concern?

11 A I don't recall whether it caused concern or
12 not.

13 Q Was it your understanding at the time that
14 it was appropriate in the operation of a nuclear reactor
15 to have bubbles forming in the upper head of the reactor
16 vessel?

17 MR. KIRSCHBAUM: I am not sure I understand
18 what you mean by "appropriate" in the context of
19 that question.

20 Q Do you believe that was something that should
21 happen during the normal course of operation of a nuclear
22 reactor either at power or in some other state of its
23 operation?

24 MR. KIRSCHBAUM: I don't understand what
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1
2 you mean by something that should happen.

3 Something that should happen as a matter of
4 course?

5 Q Is it something the system is intended to
6 do? Is that the way it is supposed to be run?

7 MR. KIRSCHBAUM: Objection to the form.

8 A I don't recall if I came to that conclusion
9 or not.

10 Q You don't recall having had any understanding
11 at that time of whether or not having a bubble in the
12 upper head of the reactor vessel was a good or bad
13 thing?

14 MR. KIRSCHBAUM: Objected to as to form.

15 A I don't recall that.

16 Q Do you recall how you heard about the B&W
17 conclusions with respect to this transient and with
18 respect to where the bubble had been generated?

19 MR. KIRSCHBAUM: Objection. I don't know
20 whether that is a correct characterization of
21 what the witness had testified hearing concerning
22 B&W's conclusion.

23 Q What did you hear about B&W's conclusion
24 with respect to a bubble?

25 A I recall hearing B&W came to the conclusion

2 that a bubble did not form and that GPU came to the
3 conclusion that it did form.

4 Q Do you recall how you learned about B&W's
5 conclusion?

6 A No.

7 Q Do you recall having any discussions with
8 anybody about B&W's conclusion?

9 A No.

10 MR. KIRSCHBAUM: I am taking these
11 questions whether he recalls one way or the other.

12 MS. WAGNER: Yes.

13 Q Do you recall whether there was any
14 conclusion reached by GPU concerning whether or not the
15 pressurizer had emptied during the transient?

16 A No.

17 Q Do you recall any conclusion reached by
18 anybody else as to whether or not the pressurizer had
19 emptied?

20 A Yes.

21 Q Who reached any conclusion with respect to
22 that?

23 A The plant staff reached the conclusion it
24 had not emptied, that it had gone below the indicated
25 level.

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2 Q That is the Metropolitan Edison plant staff?

3 A TMI plant staff.

4 Q Do you recall whether the TMI plant staff
5 reached any conclusion with respect to whether or not
6 a bubble had been drawn or generated in the primary
7 system during this transient?

8 A No.

9 Q Yesterday you testified concerning meetings
10 which you recall being held at B&W concerning the small
11 break LOCA problem and fix.

12 Do you recall how many meetings you attended
13 which concerned that issue?

14 A No.

15 Q Do you recall the dates of any of the
16 meetings?

17 A No.

18 Q Do you recall whether anybody else from
19 Metropolitan Edison attended any of the meetings?

20 A Yes.

21 Q Did anybody?

22 A Yes.

23 Q Who?

24 A I don't recall specifically who attended.

25 Q Can you separate out in your mind a first

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2 meeting, a second meeting, some kind of sequence
3 between the meetings?

4 A I can separate partially a sequence of
5 meetings.

6 Q Referring now to the first meeting, whenever
7 that one occurred, do you recall who was present at the
8 meeting from Babcock & Wilcox?

9 A The first meeting I recall was a B&W
10 meeting in Bethesda B&W offices. I recall Mr. Taylor
11 and Mr. Dunn and several licensees.

12 Q To the best of your recollection, only
13 Taylor and Dunn were there from B&W?

14 A Those are the two that I recall. They made
15 part of the presentation.

16 Q Who else made part of the presentation?

17 A Well, they made the presentation.

18 Q Nobody else spoke?

19 A Not that I recall.

20 MR. KIRSCHBAUM: By speaking, you are
21 referring to speaking and the witness referred
22 to presentation. I am not sure the witness
23 understands.

24 Q Did anyone else speak at all, like questions
25 and answers and that sort of thing?

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A There were questions and answers, but part of the presentation was Mr. Taylor made an introductory and then Mr. Dunn made a technical presentation.

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Q Was anybody present at this meeting from any regulatory authority?

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A Not at that meeting but later that day, there was a meeting at NRC offices in Bethesda. The first meeting was a meeting with the licensees in preparation for the second meeting at the NRC.

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Q I take it these meetings occurred before the accident?

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A Yes.

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Q What did Taylor say?

A That the analysis that Mr. Dunn or the ECCS group in B&W had done, was available for presentation to the NRC and that the safe operation of the B&W reactors would be demonstrated and that we were in a good position for the presentation that afternoon at the NRC.

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Q What else did he say?

A I don't recall other comments.

Q Did Mr. Taylor say anything about the HPI system?

A Yes, the HPI system would require operator

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action to provide safe operation with the end that the analysis demonstrated, that that would provide safe operation.

I believe it was Mr. Dunn who defined the specifics.

Q Do you recall the words that Mr. Taylor used to discuss this matter?

A No.

MR. KIRSCHBAUM: You mean the exact words?

MS. WAGNER: The exact words.

A No.

Q Did Mr. Taylor tell you what operator action he was talking about?

A I'm not certain whether it was Mr. Taylor or Mr. Dunn. I believe Mr. Dunn provided the specifics of the presentation.

Q Did Mr. Taylor say anything about the HPI system from the point of view of hardware as opposed to operator action?

MR. KIRSCHBAUM: Are you asking if Mr. Taylor discussed hardware of the HPI system?

MS. WAGNER: If he talked about the physical system, the pumps and whatever else goes into the HPI system.

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A I'm not certain on that point.

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Q Did Mr. Taylor say anything about procedures for the operation of HPI?

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A Either Mr. Dunn or Mr. Taylor stated that the procedures would require changes to define operator action.

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Q You don't recall who said that?

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A No.

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Q Did you take any notes during that first meeting?

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A I don't recall taking notes.

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Q Do you know if anybody else from Metropolitan Edison took notes?

15

A I don't know.

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Q Can you recall anything else Mr. Taylor said?

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MR. KIRSCHBAUM: Specifically?

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MS. WAGNER: Specifically.

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A No.

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Q Can you recall generally anything else that he said?

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A I can recall generally what the operator actions were, but I believe that it was Mr. Dunn's presentation, as I said, that provided those specific

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details, not Mr. Taylor's.

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Q Can you remember anything else that Mr. Taylor said at all?

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A No.

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Q Do you recall whether or not you understood what Mr. Taylor meant when he said that safe operation of B&W reactors would be demonstrated?

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A That operator action, when accomplished, that the analysis that Mr. Dunn was about to present provided the safety that the HPI system was designed to.

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Q Is it correct that the issue that was being addressed at this time was a specific small break which was specifically defined?

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MR. KIRSCHBAUM: The issue that was being addressed --

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MS. WAGNER: By this meeting,

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MR. KIRSCHBAUM: I am not sure I understand what you mean by an issue being addressed by a meeting as opposed to an issue addressed by somebody's presentation.

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MS. WAGNER: I am talking about why everybody was there.

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MR. KIRSCHBAUM: Why the licensees came to the meeting?

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2 MS. WAGNER: Yes.

3 Q Isn't it correct that the problem that was
4 being addressed was a specific small break which
5 involved, among other things, loss of oxide power and
6 a break at the discharge lines at the pumps?

7 A It involved the safe operation of the
8 plants and the break at the discharge of the pumps
9 was really a break in the main coolant piping.

10 Q Isn't it correct, however,ⁱ that the
11 problem was a specific one that was being addressed
12 here?

13 MR. KIRSCHBAUM: Do you mean to exclude
14 anything else or are you talking about that
15 there was a specific problem and nothing else
16 was discussed at the meeting or are you trying
17 to --

18 MS. WAGNER: I am trying to ask what was
19 the purpose of the meeting.

20 MR. KIRSCHBAUM: From his standpoint?

21 MW. WAGNER: What did he understand
22 everybody was there for.

23 MR. KIRSCHBAUM: I think he testified to
24 that, what he understood.

25 MS. WAGNER: Maybe I don't quite understand

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2 it yet.

3 Q Was everybody there to discuss in general
4 whether or not HPI was a nice thing to have or had this
5 meeting come about because there was a specific problem
6 with the safety analysis for the HPI and the problem
7 was the small break problem which involved loss of oxide
8 power and a break at the discharge of the pump?

9 MR. KIRSCHBAUM: I object as to form because
10 you are posing two polar positions that you are
11 presenting as being exclusive and they are far
12 from that.

13 MS. WAGNER: I would suggest those are two
14 ideas as to give me an idea what the question
15 is. You need not adopt either one as your
16 position.

17 Q Can you give me a description of what you
18 understood was the purpose of this meeting?

19 A I understood the purpose of the meeting was
20 to assure the licensees and, subsequently, in the
21 afternoon meeting, to demonstrate to the NRC that safe
22 operation was possible with -- that this analysis
23 demonstrated -- would be safe operation and it was not
24 limited to a specific break size.

25 In fact, it included a number of break

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sizes.

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Q Did you understand that B&W was indicating that the HPI system was functional if it was turned off?

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MR. KIRSCHBAUM: I object to the question as to form. Are you referring -- are you asking whether he thought that a piece of equipment would work when it was off or the system would work?

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MS. WAGNER: Whether that was one of the things being addressed at this meeting, that the HPI system, if it were disabled and turned off and nonfunctional, whether somehow that would still work.

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MR. KIRSCHBAUM: Disabled, nonfunctional and turned off are all different things.

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MS. WAGNER: Turned off.

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MR. KIRSCHBAUM: As a result of operator action?

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MS. WAGNER: As a result of anything.

20

A Please repeat your question.

21

MS. WAGNER: Could you read it back.

22

(Record was read back.)

23

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Q Did you understand that B&W at this meeting was addressing the issue of whether or not the HPI system would function if it were turned off by anybody?

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A No. My understanding was that if it was operated with the instructions they were giving at that meeting, that safe operation would ensue.

Q What did Mr. Dunn say at this meeting?

A Mr. Dunn made a presentation that included overhead projections of graphs of the several sized breaks that the analysis included, described generally the location of the break and included the instructions that the operator would need to operate the system.

MS. WAGNER: Could I have the answer read back, please.

MR. KIRSCHBAUM: I would like the question and the answer.

(Record was read back.)

Q What was the location of the break that Mr. Dunn was discussing?

A On the main coolant pipe lower elevation between the pump -- the main coolant pump discharge and the reactor.

Q When you say he included instructions for system operation, what do you mean by that?

A He included several changes, several steps that required changes to the emergency procedure.

Q Did he present to anybody at this meeting a

1
2 procedure for operation of the HPI system?

3 A He included the steps of the procedure.

4 Q Did he include the steps of a procedure
5 applicable to the break he was discussing or did he
6 include a procedure which purported to cover entirely
7 the operation of HPI under any circumstances?

8 MR. KIRSCHBAUM: Objection. Again the
9 implication of the question being those are the
10 only two possibilities that you are leaving open.

11 Q If he did anything else, tell me about that,
12 too.

13 A He included in his presentation the
14 operator steps as changes to procedures.

15 Q Changes to another procedure?

16 A Changes to the emergency operating procedure.

17 Q Did you understand on which emergency
18 operating procedure the changes applied?

19 A Yes.

20 Q Which procedure was that?

21 A The LOCA procedure.

22 Q Did Mr. Dunn present to the group a complete
23 LOCA procedure or just the changes that you have
24 described or something else?

25 MR. KIRSCHBAUM: Objection as to form.

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The witness may answer if he understands.

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A He did not provide a complete procedure. He provided changes, complete steps within that procedure, if you will.

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8

Q Were those changes described by him as intended to apply to the break, the range of breaks that he was describing at this meeting?

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10

11

MR. KIRSCHBAUM: Objection. Are you asking him whether Mr. Dunn expressed Mr. Dunn's intention?

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MS. WAGNER: Yes. I am asking if Mr. Dunn said whether or not these procedure changes he was talking about were to apply to the range of breaks and the types of breaks he was discussing.

16

17

A He provided those steps to provide for continued safe operation of the HPI system.

18

19

20

Q Were those steps, as you understood it, intended to apply to the break situation that he was talking about at this time?

21

22

A They were intended to complete the analysis necessary to make a safe HPI system.

23

24

25

Q Was there any connection in your mind, did you think there was any connection or did anyone tell you there was any connection, between the procedures

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2

he was describing and the breaks he was describing?

3

MR. KIRSCHBAUM: Read the question back,

4

please.

5

(Record was read back.)

6

A The breaks he was describing were previously

7

unanalyzed which would bring us out of a safe operating

8

envelope. The steps and analysis provide our return

9

to that safe operating envelope.

10

Q The steps were intended to allow you to

11

return to the safe operating envelope if one of the

12

breaks described had occurred, is that correct?

13

MR. KIRSCHBAUM: Insofar as you are

14

attempting to characterize the witness' testimony,

15

I object. I object in addition because the

16

safe operating envelope that the witness referred

17

to before, I think it is being mischaracterized

18

as to whether or not if something happens, you

19

are in the safe operating envelope and if it

20

doesn't happen, you are outside of the envelope.

21

Q Do you understand the question, Mr. Potts?

22

A Not totally, no.

23

MS. WAGNER: Read back the answer he gave

24

about the safe operating envelope which is about

25

three answers back, please.

(Record was read back.)

Q Is it correct that what he was telling you was that in the event of one of the breaks he was describing which would cause you to go outside of the safe operating envelope, if the steps he told you about were used, you would be brought back into the safe operating envelope?

MR. KIRSCHBAUM: Objection. I don't believe you are correctly using the term as the witness has used it.

The witness may answer the question.

A I believe he was characterizing that in addition to other things.

Q What other things?

A I don't believe he characterized it as limited to just that break.

Q What did he say about it?

A I don't recall his specific words.

Q Do you recall generally what he said?

A Generally, the small break LOCA safe analysis was done to provide safe operation of the plant under all of the range of small break sizes and locations.

I believe that we were presented with a

1
2 modification to that analysis or an additional analysis
3 that said if we followed these instructions, that the
4 plant would then be operated safely and that the small
5 breaks would not be an unsafe condition.

6 Small breaks being whatever possible sizes
7 that were available or locations that were available.

8 Q Did Mr. Dunn say that if you followed the
9 steps he had just given you, a small break at any
10 location could safely be overcome by this HPI system?

11 MR. KIRSCHBAUM: Asked and answered. You
12 have answered several times.

13 You may answer it again.

14 THE WITNESS: Repeat the question.

15 (Record was read back.)

16 A Yes, those as a modification to the earlier
17 analysis, would now complete the small break analysis
18 so that safe operation was possible.

19 Q Just so the record is clear, my question
20 is, did Mr. Dunn address the issue of the location of
21 the break and did he say that at any location these
22 steps would provide safety?

23 MR. KIRSCHBAUM: Could you take that one
24 at a time.

25 Q Did he address the location, did he

1
2 specifically say something about the location?

3 A Yes. The location was important to describe
4 why the original small break analysis had to be
5 modified or amplified.

6 Q Why was the location important?

7 MR. KIRSCHBAUM: Was important to Mr. Dunn
8 in his analysis?

9 Q Did Mr. Dunn say it was important?

10 A Yes.

11 Q Why did he say it was important?

12 A The analysis was previously done with the
13 location of the break on the top of the pipe instead
14 of the lower level of the pipe and it resulted in
15 different conditions that had not been perceived.
16 Now they were perceived and they had to be analyzed.

17 Q Was he talking, to the best of your
18 recollection, about a break in any location in the system
19 or was he talking about the difference of a break at
20 the top of the pipe and a break at the bottom of the
21 pipe?

22 MR. KIRSCHBAUM: Objection because you are
23 seeming to exclude a middle ground.

24 MS. WAGNER: He is talking about the top
25 and the bottom of the pipe and I want to know

whether specifically Mr. Dunn said something specific about the location.

A We talked about the original analysis and what some of the locations and sizes were in the original analysis and defined why -- I don't recall the number, but the number that was done in this additional analysis and the location was different and why they resulted in a different set of circumstances out of it.

Q What locations were addressed by the new analysis?

MR. KIRSCHBAUM: What do you mean by "addressed"?

MS. WAGNER: Whatever the witness meant by it.

MR. KIRSCHBAUM: Explain what you mean then.

A The additional locations that we talked about in the meeting were that the original analysis had done a number of locations and that this new analysis was of a different location than those -- an additional location to those and additional sizes.

Q Which additional or different locations were addressed by the new analysis?

A The one on the discharge side of the main coolant pump at the lower side of the main cooling

1
2 piping.

3 Q Did Mr. Dunn address specifically in this
4 meeting any locations other than that one?

5 MR. KIRSCHBAUM: Again, I think there is
6 an ambiguity with the use of the word "address."
7 If you mean did he discuss specifically other
8 locations, that is one thing. If you talk about
9 addressing -- you are talking about what his
10 presentation was aimed at as opposed to limiting
11 your questioning as to what was specifically said?

12 MS. WAGNER: I am asking what his words
13 were.

14 MR. KIRSCHBAUM: He has testified on
15 several occasions -- he has described the substance
16 on a number of occasions and I think you are
17 continuing to ask the same question at this point.

18 MS. WAGNER: I will try to get one answer
19 that I think is clear enough.

20 Q Can you tell me whether Mr. Dunn
21 specifically said anything about any location other
22 than the one that you described in your previous answer
23 which concerns a break at the lower part of the discharge
24 line?

25 A Yes.

1
2 Q What other locations did he specifically
3 address in his presentation?

4 MR. KIRSCHBAUM: Specifically addressed?
5 Specifically discussed?

6 MS. WAGNER: Specifically talked about.

7 A We specifically talked about at least one
8 other break location being the suction side of the main
9 coolant pump.

10 Q Did he say anything about any other specific
11 location?

12 A I don't recall their specific locations
13 but we discussed in general the original analysis and
14 what it included which had other locations.

15 Q What else did Mr. Dunn say?

16 MR. KIRSCHBAUM: Is your question addressed
17 to anything else that he might have said that
18 hasn't been covered somewhere along the line
19 of this testimony?

20 MS. WAGNER: Yes, if he can recall.

21 A I'm not certain whether we are talking
22 about the meeting in B&W's office or NRC's office.

23 Q The first meeting in B&W's office.

24 A That is all I can remember.

25 Q Do you recall whether or not he said

1
2 anything other than what you have previously testified
3 to concerning procedures for the operation of HPI?

4 A No.

5 Q Do you recall whether he said anything
6 other than what you have already testified to concerning
7 hardware aspects of the HPI system as opposed to
8 procedures for its operation?

9 A Hardware aspects were part of that meeting.
10 I believe Mr. Dunn was part of that discussion.

11 Q What was discussed?

12 A There would be a long-term small break
13 fix to prevent the loss of electric power or the loss
14 of a single HPI pump which, when that hardware fix
15 was installed, would remove the necessity for the
16 operator actions that we were describing.

17 Q What was that fix to be?

18 A At that time there were several possibilities
19 that had yet to be designed and analyzed.

20 Q Was that to be part of the presentation
21 to the NRC later in the day, the hardware fix?

22 A It was a minor part of the discussion with
23 the NRC.

24 MS. WAGNER: Why don't we have a break now.

25 (Recess taken.)

1
2 BY MS. WAGNER:

3 Q Mr. Potts, just to clarify the testimony
4 that we have just had, when you were speaking about
5 what Mr. Dunn said about location of breaks, did your
6 answers concern the entire meeting, whether the issue
7 under discussion at that time was hardware or software?

8 MR. KIRSCHBAUM: I don't understand the
9 question.

10 Q Toward the end of your testimony, you
11 discussed what Mr. Dunn had said about a hardware fix
12 in this situation and my question is only whether or not
13 when you were responding to my questions about what
14 Mr. Dunn said about location, whether you were excluding
15 for any reason that part of the meeting during which
16 he was discussing this hardware fix?

17 MR. KIRSCHBAUM: I am still not sure I
18 understand the question.

19 You can answer if you understand it.

20 A The purpose of the hardware fix was to
21 remove the necessity for the operator action and it
22 would come at a subsequent date.

23 Q During the time when Mr. Dunn was talking
24 about that, did he say anything in addition to what you
25 have testified about already concerning the location of

1

2

breaks?

3

A No.

4

Q After this meeting I believe you testified

5

there was a subsequent meeting at the NRC, is that

6

correct?

7

A Yes.

8

Q Who attended that meeting from Babcock &

9

Wilcox?

10

A There may have been others in addition to

11

Mr. Taylor and Mr. Dunn, but the presentations were

12

made by them. Those are who I recall.

13

Q Who else attended the meeting, if anyone,

14

from Met Ed or GPU?

15

A I don't recall the attendance list, who

16

attended.

17

Q Do you recall who attended on behalf of

18

the NRC?

19

A There were a number of NRC individuals

20

present. I don't recall their names.

21

Q You don't recall any names?

22

A No.

23

Q What was said by Mr. Taylor at that meeting?

24

A Mr. Taylor again provided the introduction

25

to the meeting, that the purpose of the meeting was to

1
2 demonstrate the safe operation of B&W licensees for
3 small break analysis and Mr. Dunn would make technical
4 presentation and technical presentation would be
5 followed by a period of questions and answers for the
6 NRC's benefit, provide an agenda of the meeting, if
7 you will.

8 Q Did Mr. Taylor say anything at that time
9 or at any time during this meeting concerning the
10 HPI system?

11 A The HPI system, yes.

12 Q What did he say?

13 A The HPI system would require operator action
14 to provide safe operation for the plants.

15 Q Did he describe the operator action?

16 A Yes.

17 Q What did he say about it?

18 A The operator action would include the
19 steps on initiation of HPI, the operator would observe
20 his flow indicators. If flow was found on all four
21 indicators and he had electrical power to both
22 electrical buses, no further operator action.

23 If, in the other case, the flow was missing
24 on two of the indicators or we did not have electric
25 power to the one emergency bus, the operator would be

1
2 required to open the HPI cross-connect valve and
3 then balance the flow through the four flow indicators.

4 Q Did he say anything else about operator
5 action?

6 A The time of operator action was a matter .
7 of discussion, I believe, as a result of the questions
8 from the NRC.

9 Q Did he say anything about the HPI system
10 from a hardware point of view?

11 A I'm not sure if Mr. Taylor said anything
12 about the hardware.

13 Q Did Mr. Taylor say anything about the
14 safety analysis for the HPI system?

15 A Yes, the NRC would be presented with the
16 additional analysis at that meeting. They were
17 presented with the additional analysis.

18 Q He didn't say anything substantive?

19 A That was the purpose of Mr. Dunn's
20 technical presentation, to describe the analysis.

21 MR. KIRSCHBAUM: I object to the use of
22 the word "substantive" in that question. I
23 don't know if there is an implication that the
24 witness testified Mr. Taylor's presentation is
25 not in any way substantive.

1

2

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Q Did Mr. Taylor say anything about any
LOCA procedure?

4

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A That the operator action that was required
would be required to modify the emergency procedures.

6

7

Q Did he say anything about the LOCA emergency
procedures other than that?

8

A No.

9

10

Q Do you recall anything else Mr. Taylor
said at this meeting?

11

A No.

12

13

Q Do you recall whether or not Mr. Taylor
responded to questions at any time during the meeting?

14

15

16

A Following Mr. Dunn's presentation, there
were a number of questions from the NRC. The response
was from various parties of B&W.

17

18

Q Do you recall whether or not Mr. Taylor
said anything at that time?

19

A I'm not certain he answered those questions.

20

21

Q Were only Mr. Taylor and Mr. Dunn making
presentations at this meeting?

22

23

A Those are the two that I recall making
presentations.

24

Q What did Mr. Dunn say?

25

A Mr. Dunn described the analysis, described

1
2 why safe operation was assured, described the scope
3 of the breaks and responded to a number of questions
4 from the NRC.

5 Q What did Mr. Dunn say about the analysis?

6 A That with the operator action, it provided
7 for the safe operation of the B&W licensees since other
8 licensees were involved.

9 Q Did he say anything else at all about the
10 analysis?

11 A Other than responding to the questions?

12 MR. KIRSCHBAUM: Other than the description
13 that the witness mentioned before?

14 MS. WAGNER: I am asking what the
15 description was. I thought he was responding
16 to that.

17 MR. KIRSCHBAUM: You asked him before what
18 was said and he said Mr. Dunn described the
19 analysis and then you didn't ask him for the
20 description. You asked him something else.

21 MS. WAGNER: I am asking what Mr. Dunn
22 said about the analysis. I thought that would
23 have included a description of the analysis.

24 Q If it didn't, could you tell me what the
25 description of the analysis was?

1
2 A Mr. Dunn provided a description of which
3 computer codes were used. There were several slides
4 or overhead projections that were used as a part of
5 that.

6 Q Were those the same ones that were used in
7 the morning?

8 A Yes.

9 Q What else did he say in describing the
10 analysis?

11 A The description he provided the NRC was
12 very similar to the description he had provided us
13 earlier in the meeting, other than there were additional
14 questions asked by the NRC.

15 Q Can you tell me now what it was that he
16 said to the NRC?

17 MR. KIRSCHBAUM: In response to the
18 additional questions?

19 MS. WAGNER: In describing the analysis.

20 MR. KIRSCHBAUM: Including the things that
21 were said previously?

22 MS. WAGNER: I want to know what was said
23 to the NRC in describing the analysis, whether
24 or not it had previously been told to the
25 licensees.

1
2 A I don't recall anything in addition to
3 what was provided to us in the morning other than the
4 NRC questions and answers.

5 Q What do you recall about the NRC questions
6 and answers?

7 A The NRC probed the analysis to assure
8 themselves that the analysis was complete and that
9 its action -- in addition to the earlier small break
10 analysis, now provided safe operation.

11 Q How did the NRC probe the analysis?

12 A They asked questions about a number of
13 different break sizes and locations to assure if the
14 correct sizes and locations had now been analyzed.

15 They asked questions about the amount --
16 the length of time required for the operator action to
17 open a cross-connect, the amount of time required for
18 the operator to recognize his flow indications, the
19 electrical indications.

20 Late in the meeting, the subject of the
21 hardware fix came up as questions from the NRC and what
22 would be the schedule analysis by B&W and the several
23 licensees involved in that meeting, what time frame
24 would we provide B&W's analysis to the NRC for the
25 hardware fix.

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Q Was B&W's analysis for the hardware fix different from B&W's analysis for the software fix?

A Yes. It would be different. It had not been completed as yet.

Q Did Mr. Dunn say anything in his presentation concerning the hardware fix?

A B&W answered the questions about the analysis. I don't know if it was Mr. Dunn.

Q I mean during Mr. Dunn's presentation, do you recall whether --

MR. KIRSCHBAUM: As opposed to the questions and answers?

MS. WAGNER: Yes.

A I don't recall that being part of the presentation.

Q Do you recall during the question and answer session what Mr. Dunn said concerning break sizes?

A He described the spectrum of break sizes that had been analyzed as complete when they were added to the original small break analysis spectrum.

Q Are those the words that he used?

A That is a paraphrase or my recollection of what he said.

Q What did he say about the break locations?

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A Here again it was described that the break location on the discharge side of the main coolant pump was different from the break location on the suction side of the main coolant pump.

Q Again, are those the words that he used?

A That is a paraphrase of his presentation.

Q Do you remember anything more about the words that he used?

A Specific words, no.

Q Do you remember if he said anything else about any other break location?

MR. KIRSCHBAUM: Any other specific break location?

MS. WAGNER: Yes.

A I don't recall specific locations that were discussed.

Q Do you recall if Mr. Dunn said anything else either during his presentation or any other time concerning the operation of the HPI system?

MR. KIRSCHBAUM: Read it back, please.

(Record was read back.)

MS. WAGNER: At any other time during this meeting is what I mean.

A He described the operator actions that would

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2

be necessary to make the safe operation with this analysis, the same as the description I had given you earlier, those several steps.

4

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Q Do you recall whether Mr. Dunn discussed in this meeting, at any time during the meeting, any LOCA procedure other than the steps that you have previously described that were to be added to the LOCA procedure?

10

A No, they were not discussed.

11

12

13

Q What else did Mr. Dunn say about the operation of the HPI system, if anything, other than what you have testified to?

14

15

A I don't recall other than what I have described.

16

Q Did you take notes at this meeting?

17

18

A I don't recall taking notes at this meeting.

19

20

Q Do you know if anybody else at Metropolitan Edison or GPU took notes at the meeting?

21

A I don't.

22

23

Q Do you know why it was that you were attending these meetings?

24

25

A I was the supervisor of Licensing at that time.

1

2

Q This was a licensing issue?

3

A Yes, it was.

4

Q How was it a licensing issue?

5

A B&W had reported it as a Part 21 issue.

6

Q Do you recall any other meetings other than

7

these two concerning the small break problem that we

8

have been discussing at which Mr. Dunn or Mr. Taylor

9

or anyone else from B&W were present?

10

A Yes.

11

Q How many other meetings?

12

A I don't know the number.

13

Q Do you know vaguely what the number is?

14

Is it more than five?

15

A I was at, subsequent to these meetings,

16

at Lynchburg on the small break LOCA.

17

Q Do you recall how many times you were at

18

Lynchburg?

19

A No.

20

MR. KIRSCHBAUM: On this subject?

21

MS. WAGNER: All my questions have to do

22

with this basic subject now.

23

Q Can you separate in your mind the meetings

24

in some sequence, a first meeting, a second meeting,

25

that sort of thing?

1

2

A No.

3

Q Can you recall who, if anybody, attended

4

the meetings besides you from Metropolitan Edison or

5

General Public Utilities?

6

A No.

7

Q Did you take notes at any of the meetings?

8

A I don't recall taking notes.

9

Q Do you know if anybody else from

10

Metropolitan Edison or GPU took notes?

11

A No.

12

Q Do you recall whether or not Taylor or Dunn

13

attended any of these meetings?

14

A I recall a meeting at Lynchburg where

15

Mr. Taylor and Mr. Dunn were present.

16

Q Do you recall any other meeting at which

17

they were present?

18

MR. KIRSCHBAUM: In Lynchburg?

19

MS. WAGNER: In Lynchburg about this subject.

20

A No.

21

Q They were both present at this meeting

22

that you recall?

23

A Yes.

24

Q Do you recall who else was present from

25

any place?

1

2

A Yes.

3

Q Who else was present?

4

A I recall Mr. Janis being present.

5

Q Who is Mr. Janis?

6

A A B&W employee.

7

Q Do you recall anybody else?

8

A No.

9

Q Do you recall whether any other customers

10 were present?

11

A Yes.

12

Q I mean customers of Babcock & Wilcox.

13

A Yes.

14

Q Do you recall who they were?

15

A Yes.

16

Q Who were they?

17

A I recall one individual.

18

Q Who is that?

19

A Mr. Raasch from Sacramento.

20

Q Do you recall whether or not other people

21

were present regardless of whether you remember who

22

they were?

23

A Yes.

24

Q Were there other people present?

25

A Yes.

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Q Do you recall whether they were also customers of B&W or whether they were from some other place like the NRC or B&W?

A I recall that there were additional licensees or customers of B&W present.

Q Do you know what the purpose of this meeting was?

MR. KIRSCHBAUM: Objection. Does he know his purpose in being there or the purpose of the meeting being called by B&W?

MS. WAGNER: Does he know the purpose of the meeting.

A Yes.

Q What was the purpose?

A The purpose of the meeting was to discuss scheduling and the progress made of the hardware fix analysis.

Q Did this meeting occur after the two meetings that you have described previously this morning?

A Yes.

Q Did Mr. Taylor or Mr. Dunn say anything at this meeting?

MR. KIRSCHBAUM: All your questions are

1
2 aimed at the meeting that the witness testified
3 that he recalls Taylor and Dunn being present
4 to the exclusion of any other meetings?

5 MS. WAGNER: That's correct.

6 A Yes.

7 Q Did they each say something?

8 A No.

9 Q Who said something?

10 A Mr. Dunn was asked a question about the
11 hardware fix and how it would interact with the
12 analysis.

13 Q Was there any presentation made at this
14 meeting?

15 A Yes.

16 Q Who made the presentation or presentations?

17 A I don't recall.

18 Q Do you recall whether it was personnel from
19 B&W or from licensees?

20 A Yes.

21 Q Which one?

22 A It was B&W.

23 Q What were the presentations about?

24 A There were some figures given on cost
25 of the analysis to date and projected cost and several

1
2 phase breakdown of the analysis sequence or the hardware
3 fix sequence.

4 Q Is the analysis you have just discussed
5 the analysis having to do with the hardware fix?

6 A . The analysis I answered in my last answer
7 had to do with the hardware fix.

8 Q What was said at this meeting by B&W
9 personnel other than Taylor and Dunn about the HPI
10 system?

11 MR. KIRSCHBAUM: Are you asking the witness
12 if he can recall specifically something that was
13 said by Taylor and Dunn? If the same thing
14 said by Taylor and Dunn was said by someone else,
15 is that included in the question?

16 MS. WAGNER: I want to hear it if it was
17 said by someone else, even if it was said by
18 Taylor and Dunn.

19 THE WITNESS: Repeat the question.

20 (Record was read back.)

21 A The most probable fix for the small break
22 LOCA problem would be a hardware fix involving
23 cross-connect piping between the discharge lines of
24 the HPI pumps.

25 Q Do you recall who said that?

1

2

A No.

3

4

Q Do you recall whether anything was said in that connection concerning break location?

5

A No.

6

Q You don't recall one way or the other?

7

A I don't recall one way or the other.

8

9

Q What did Taylor say at this meeting, if anything?

10

A I don't recall what else Mr. Taylor said.

11

12

Q What did Mr. Dunn say at this meeting, if anything?

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MR. KIRSCHBAUM: He already testified

that Dunn said some things. You mean other than what he said Dunn said?

Q What did he say other than what you have testified to?

A The installation of the cross-connect piping would remove the necessity for the operator action.

Q Did he say anything else?

A I don't recall him saying anything else.

Q Did anybody at this meeting say anything about the safety analysis for the HPI system?

A Yes.

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Q What was said?

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A A discussion of how the analysis that had previously been performed and was presented to the NRC in that meeting we discussed and this follow-up analysis for the hardware fix and how it would be paid was discussed.

Q Was anything discussed about the analysis other than that, other than how it was to be paid for?

A I don't recall other things being discussed.

Q Did anyone at this meeting say anything about the emergency LOCA procedure or any emergency LOCA procedure other than what you have testified to which is that operator action wouldn't be needed once the hardware fix came into being?

A That is what I recall of the discussion.

Q You don't recall anything else?

A No.

Q Do you recall anything else being said at this meeting by anybody concerning the LOCA procedure?

MR. KIRSCHBAUM: Are you referring to a specific LOCA procedure or is that a small "p" or capital "P"?

MS. WAGNER: Any LOCA procedure.

MR. KIRSCHBAUM: Any procedure in connection

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with LOCA, I take it?

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MS. WAGNER: Yes.

4

5

A Other than the discussions of how we would pay for the procedure.

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Q Do you recall any other meetings any place but with B&W concerning this issue, the whole small break issue?

9

A No.

10

11

Q Do you recall when this meeting was that you have just described, generally?

12

A Yes.

13

Q When was it?

14

15

A It was subsequent to the meeting with the NRC.

16

Q Other than that, can you place it in time?

17

MR. KIRSCHBAUM: Exactly, approximately?

18

MS. WAGNER: Approximately or exactly.

19

20

A Within a few weeks is the best that I can place it.

21

Q Within a few weeks from the NRC meeting?

22

A NRC meeting.

23

24

Q You can't place it within a year or within some month in a year or anything like that?

25

A I cannot place it within a month. It was

1
2 within that year when the meeting with the NRC
3 occurred.

4 Q Do you know what year that was?

5 A It was 1978.

6 Q I would like to go back now briefly to
7 the meeting at the NRC, the second meeting we have
8 discussed today.

9 You indicated that Burt Dunn said a number
10 of things at the meeting, one of which was why safe
11 operation of the HPI was assured given the operator
12 action he was at that time describing.

13 Can you remember anything else that he said
14 about why safe operation was assured?

15 MR. KIRSCHBAUM: I object to the question.
16 You have taken part of the witness' testimony and
17 now you are asking whether he can recall anything
18 else. He testified to a number of things that
19 Burt Dunn said at the meeting and I really
20 think unless you want him to repeat everything
21 that he recalls Dunn having said at the meeting
22 again, the question is unfair. If you want him
23 to repeat everything Dunn said, the question was
24 asked and answered.

25 Q I would like to know whether Burt Dunn

1

2 said "Safe operation is assured."

3

MR. KIRSCHBAUM: Quote?

4

MS. WAGNER: Quote.

5

A I'm not certain he said the word "assured."

6

Safe operation of the plant was the purpose of the

7

meeting and it was the purpose of his discussion with

8

us, to assure us and then subsequently assure the NRC

9

of the safe operation.

10

Q Do you recall other than what you have

11

already testified to this morning, whether or not he

12

said anything to qualify or give more detail to the

13

statement that safe operation is assured or whatever

14

statement he made that gave you the impression that

15

is what he meant?

16

MR. KIRSCHBAUM: Read that back, please.

17

(Record was read back.)

18

MR. KIRSCHBAUM: I object to the question

19

as to form. The witness may answer.

20

A I don't recall him qualifying his statement

21

with other details other than what I have given you.

22

Q Do you know if any other meetings were

23

held concerning this issue, held between B&W customers,

24

including Metropolitan Edison, which you did not attend?

25

A I don't know.

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Q You do not know of any or you do not know
one way or the other?

4

A I don't know if there were.

5

Q Did you ever hear of any such meeting?

6

MR. KIRSCHBAUM: That he did not attend?

7

MS. WAGNER: Yes.

8

A I don't recall hearing of meetings --

9

Q Do you know somebody --

10

A -- that I did not attend.

11

Q Do you know somebody called R. C. Cutler?

12

A Yes.

13

Q Who is R. C. Cutler?

14

A Mr. Cutler is an engineer for GPU Service

15

Corporation.

16

Q Did he attend any of the meetings that you

17

have described with you?

18

A I don't know if Mr. Cutler did or not.

19

Q Did you and Mr. Cutler ever discuss any

20

of these meetings?

21

A I don't recall discussing them with

22

Mr. Cutler.

23

Q Did you discuss these meetings with anybody

24

before the accident?

25

A Before the accident, yes.

2 Q With whom?

3 A The Vice President of Generation.

4 Q Who was that?

5 A Mr. Herbein.

6 Q What did you talk about with Mr. Herbein?

7 A The safety implications, the scheduling
8 implications, the impact on Three Mile Island Units 1
9 and 2, costs.

10 Q What did you say about the safety
11 implications?

12 A That the safety analysis that B&W presented
13 to the NRC assured the safe operation of TMI.

14 Q Did you ever read the safety analysis that
15 was presented?

16 MR. KIRSCHBAUM: At which meeting?

17 MS. WAGNER: The safety analysis that
18 concerned the operator action, whenever it was
19 presented.

20 MR. KIRSCHBAUM: There may have been more
21 than one analysis. That is why I am trying to
22 get a qualification.

23 Q Was there more than one?

24 A I don't recall.

25 Q Do you recall any analysis?

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A I don't recall if I had the analysis or not. There was an analysis that was presented to the NRC.

Q You do not recall whether you reviewed that analysis yourself?

A That's true.

Q Have you ever reviewed a safety analysis such as that?

MR. KIRSCHBAUM: At any time?

MS. WAGNER: At any time.

MR. KIRSCHBAUM: Any safety analysis?

MS. WAGNER: Before the accident.

MR. KIRSCHBAUM: Any time before the accident, any safety analysis of any kind?

MS. WAGNER: Yes.

A Yes.

Q Have you reviewed many such analyses?

A No.

Q How many would you say?

A I would characterize it as 10 to 20.

Q What was your position when you reviewed such safety analyses?

MR. KIRSCHBAUM: Pre-accident?

MS. WAGNER: Pre-accident.

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2

A Supervisor of Licensing.

3

4

Q Did these analyses concern the operation of a nuclear power plant?

5

A Yes.

6

7

Q Did they involve different pieces of equipment?

8

A Yes.

9

Q Did they involve different procedures?

10

A Yes.

11

12

Q When you reviewed them, what was your purpose in reviewing them?

13

MR. KIRSCHBAUM: All of them, some of

14

them?

15

MS. WAGNER: All of them.

16

17

Q Was there any practice that you had with respect to reviewing safety analyses?

18

MR. KIRSCHBAUM: Practice in terms of

19

purpose?

20

MS. WAGNER: In terms of purpose.

21

22

A Safety analyses were occasionally submitted to the NRC as attachments to licensing documents and in those cases, I did review them.

23

24

Q What were you reviewing them for?

25

MR. KIRSCHBAUM: Objection as to form.

1
2 A I was reviewing them to insure that the
3 attachment was complete, that it met the request of
4 the NRC, if they had requested it, or if it was a reload
5 report or something that we normally submitted to them
6 without a request, that it met the NRC's requirements
7 for those kinds of submittals.

8 Q Did you review safety analyses for
9 substance?

10 A I did not provide the technical review of
11 safety analyses, if that is responsive to your question.

12 Q I believe that is what my question was, yes.
13 Who did, if anybody at Metropolitan Edison,
14 provide such review? You can tell me a department
15 rather than a person.

16 MR. KIRSCHBAUM: While he was supervisor?

17 MS. WAGNER: Yes.

18 A Those safety analyses reviewed by Met Ed
19 would have been reviewed by the Engineering Department.

20 Q When you attended the meeting at which the
21 safety analysis for this small break LOCA was discussed
22 and presented, did you understand it?

23 MR. KIRSCHBAUM: Read the question back,
24 please.

25 (Record was read back.)

1
2 MR. KIRSCHBAUM: Are you referring to
3 one meeting or one of the specific meetings?

4 MS. WAGNER: I am referring to the B&W
5 analysis. It is not clear to me whether Mr. Potts
6 ever physically had it. Whatever he knew about
7 it from whatever source, did he understand it.

8 MR. KIRSCHBAUM: You are talking about the
9 written document only?

10 MS. WAGNER: I am talking about the written
11 document or any oral review of that document
12 which he heard.

13 MR. KIRSCHBAUM: And you are asking whether
14 he understood any, all or some of it?

15 MS. WAGNER: Whether he understood the
16 analysis.

17 MR. KIRSCHBAUM: You don't want to qualify
18 it further in terms of any, all or some?

19 MS. WAGNER: No.

20 MR. KIRSCHBAUM: Objection as to form.

21 You can answer.

22 A Can you restate it?

23 Q Do you know what I am referring to when I
24 talk about the small break analysis that we have been
25 discussing all morning?

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A Yes.

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Q Did you understand that before the
accident?

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MR. KIRSCHBAUM: Objection as to form.

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A I had some understanding of that analysis
before the accident.

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Q Was your understanding based upon what you
heard in these meetings or was it based upon any other
review?

11

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A Based on primarily the understanding I
gained in the meeting.

13

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Q Do you know if anybody at Metropolitan
Edison, any engineer reviewed or the Engineering
Department reviewed the safety analysis?

16

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18

A I don't recall specifically.

Q Did you discuss that with any engineer,
the safety analysis?

19

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21

22

A Other than a Licensing engineer?

Q Including a Licensing engineer.

A I don't recall specifically discussions of
that with other engineers.

23

24

Q Do you recall generally whether you had
such a discussion?

25

A Other than it would be normal to discuss

1
2 it with a Licensing engineer.

3 Q Would it be normal to discuss the substance
4 of the safety analysis with the Licensing engineer?

5 MR. KIRSCHBAUM: What do you mean by
6 "substance"?

7 Q The technical aspects as opposed to the
8 format, Mr. Potts.

9 MR. KIRSCHBAUM: I am not sure I agree there
10 is only again a technical aspect, and format.

11 Q Did you discuss the technical aspect with
12 the Licensing engineer or would it have been normal to
13 do so?

14 A It would have been normal to discuss the
15 technical aspects.

16 Q Did anybody in the Licensing Department
17 at that time have the qualifications to understand
18 the safety analysis?

19 MR. KIRSCHBAUM: If the witness had an
20 opinion at that time as to the qualifications
21 of the other people in the department?

22 MS. WAGNER: Yes.

23 A A certain understanding of that safety
24 analysis would have been within the qualifications
25 of the Licensing engineer.

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Q Not a complete understanding?

A The analysis involved computer codes such as FOAM and THETA and those things and I didn't have an understanding of those computer codes nor do I believe the Licensing engineer had an understanding of those computer codes.

Q Other than the computer codes, do you believe you had the qualification to comprehend the rest of the analysis other than how the computer codes worked?

A Computer codes are an essential part of that analysis. An understanding of that analysis wouldn't be within my capabilities.

MR. KIRSCHBAUM: We are referring to the analysis which contained those codes?

MS. WAGNER: That's correct.

Q Did you ever come to hold the opinion that B&W's high pressure injection system was not safe to operate?

MR. KIRSCHBAUM: Pre or post-accident?

MS. WAGNER: Pre or post-accident.

A Before the accident, I had the understanding that it was safe. Subsequent to the accident, that opinion changed.

2 Q What was your opinion subsequent to the
3 accident?

4 A Subsequent to the accident, there were
5 additional instructions necessary to operate safely.

6 Q What was your change of opinion based upon?

7 A Based upon reading in the Kemeny Commission
8 report and the Rogovin report that there were additional
9 instructions resulting from the Davis-Besse incident
10 that were necessary to the LOCA procedure.

11 Q Is it correct that your change in opinion
12 was not based on anything new you discovered about the
13 hardware of the HPI system, but it had to do with the
14 procedures for its operation?

15 A I don't recall the hardware being discussed.
16 It was the procedure steps that were within those
17 reports.

18 Q And it is the procedure steps which
19 resulted in your change of opinion, is that correct?

20 A That's correct.

21 Q Did you have an understanding prior to the
22 accident that if a small break LOCA occurred and the HPI
23 system were shut off, that the nuclear steam supply
24 system would be protected from damage?

25 MR. KIRSCHBAUM: Is your question referring

1
2 to the HPI system being shut off at any particular
3 point in time?

4 MS. WAGNER: During the incident or within
5 five minutes after its initiation. Let's take
6 it throughout the incident.

7 Q Suppose there was no HPI operatable and a
8 small break LOCA occurred.

9 MR. KIRSCHBAUM: Then what?

10 Q Was it your understanding that the system
11 would be protected from damage?

12 MR. KIRSCHBAUM: The system being what?

13 MS. WAGNER: The nuclear steam supply
14 system.

15 MR. KIRSCHBAUM: It would be protected
16 from damage in all cases if a small break LOCA
17 occurred and the HPI were unavailable?

18 MS. WAGNER: Right.

19 A It was my understanding pre-accident that
20 only one train was necessary to be available for small
21 break LOCA.

22 Q What if you didn't have any train at all,
23 did you have an opinion as to whether or not a small
24 break LOCA in the nuclear steam supply system would
25 be protected from damage under those circumstances?

1
2 A The understanding I had was everything we
3 had done was to insure that one HPI system would be
4 available.

5 Q Did you give any thought at all to the
6 possibility that all HPI could be, for some reason,
7 unavailable?

8 MR. KIRSCHBAUM: Pre-accident whether he
9 actually gave thought to this possibility we are
10 discussing?

11 MS. WAGNER: That's right.

12 A I gave thought to it. Pre-accident, it
13 was not a possibility to lose both trains.

14 Q During the meetings that you have discussed,
15 did anybody discuss what would happen if all HPI were
16 lost, unavailable for some reason?

17 A No.

18 MS. WAGNER: We have no further questions.

19 MR. KIRSCHBAUM: I have no questions.

20 (Time noted: 12:00 o'clock noon.)

21
22 William E. Potts

23 Subscribed and sworn to before me

24 this day of 1982.

25

CERTIFICATE

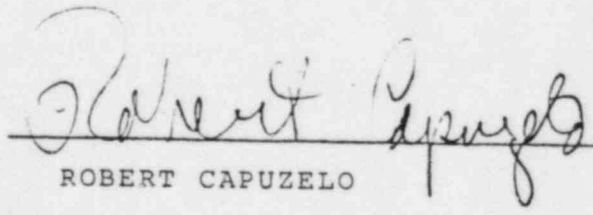
STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

I, ROBERT CAPUZELO, a Notary
Public of the State of New York, do hereby
certify that the continued deposition of
WILLIAM E. POTTS was taken before
me on Friday, January 8, 1982 consisting
of pages 177 through 250;

I further certify that the witness had
been previously sworn and that the within
transcript is a true record of said testimony;

That I am not connected by blood or
marriage with any of the said parties nor
interested directly or indirectly in the matter
in controversy, nor am I in the employ of any
of the counsel.

IN WITNESS WHEREOF, I have hereunto set my
hand this 2nd day of February, 1982.


ROBERT CAPUZELO

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

GENERAL PUBLIC UTILITIES CORPORATION,
JERSEY CENTRAL POWER & LIGHT COMPANY,
METROPOLITAN EDISON COMPANY and
PENNSYLVANIA ELECTRIC COMPANY,

Plaintiffs,

-against-

THE BABCOCK & WILCOX COMPANY and
McDERMOTT INCORPORATED,

Defendants.

80 Civ. 1683 (RO)

AFFIDAVIT

STATE OF PENNSYLVANIA)
 : ss.:
COUNTY OF DAUPHIN)

I have read the transcript of my deposition taken on January 8 and January 9, 1982 and together with the attached corrections, it is accurate to the best of my knowledge and belief.

William E. Potts
William E. Potts

Signed and sworn to before me

this 21st day of July, 1982.

Barbara A. Rote, Notary Public
East Hempfield Twp., PA Lancaster County
My Commission Expires August 22, 1983

Barbara A. Gote
Notary Public

Corrections to Deposition of William E. Potts
January 8 and January 9, 1982

<u>PAGE</u>	<u>LINE</u>	<u>CHANGE*</u>
6	7	"Id" should read "I"
8	12	"Health, Physics," should read "Health Physics,"
9	8	In order to clarify my answer, add "I was employed by Metropolitan Edison Company while I was working at Saxton. In 1972 I went to work for Metropolitan Edison Company at Three Mile Island."
12	8	"operations maintenance" should read "operations and maintenance"
28	8	"Who is" should read "He was"
28	13	In order to clarify my answer, strike "Quality assurance specialist."
34	11	In order to clarify my answer, insert "ever doing that" after "recall"
34	15	In order to clarify my answer, insert "ever doing that" after "recall"
56	13	"for" should read "form"
59	8	In order to complete my answer, add "It was set up, in part, for that purpose but I do not recall if there was any occasion for Met-Ed to make a Part 21 filing while I was at Licensing."
59	11	In order to clarify my answer, strike the period after "know" and insert "if it still exists in the form it was in while I was at Licensing. Some form of action item system exists today."

* Unless otherwise stated, each correction is being made to correct errors in typing or hearing by the reporter.

Corrections to Deposition of William E. Potts
January 8 and January 9, 1982

<u>PAGE</u>	<u>LINE</u>	<u>CHANGE</u>
59	13	In order to complete my answer, replace the period after "No" with a comma and insert "but occasionally action items are referred to me for handling."
63	2	"Roan" should read "Ronald"
63	14	"Roan" should read "Ronald"
72	11	In order to clarify my answer, add "That position ceased to exist."
79	21	"Manager, Development" should read "Management Development"
98	18	"local" should read "LOCA"
135	5	In order to complete my answer, replace the period after "No" with a comma and insert "not before the accident. But since the accident I have seen documents which show that B&W knew that its high-pressure injection system wasn't safe to operate."
149	19	"2979" should read "March '79"
159	19-20	In order to clarify my answer, strike "I have no other reason to believe it" and insert "I have no reason to believe that B&W 384 is not accurate"
203	5	"oxide" should read "off-site"
210	21	"safe" should read "safety"
219	6	"benefit, provide" should read "Benefit. He provided"