

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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

Plaintiffs,

CIVIL ACTION

-against-

: NO. 80 CIV.  
1683 (R.O.)

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

Defendants. :

- - - - - x

Continued deposition of THE BABCOCK &  
WILCOX COMPANY, by JAMES FRANKLIN WALTERS,  
taken by Plaintiffs, pursuant to notice as  
adjourned, at the offices of Kaye, Scholer,  
Fierman, Hays & Handler, Esqs., 425 Park  
Avenue, New York, New York, on Tuesday,  
April 14, 1981, at 9:41 o'clock in the  
forenoon, before Charles Shapiro, Certified  
Shorthand Reporter and Notary Public within  
and for the State of New York.



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J A M E S F R A N K L I N W A L T E R S ,

having been previously duly sworn, was  
examined and testified further as follows:

EXAMINATION (CONTINUED)

BY MR. MacDONALD:

Q You are aware, Mr. Walters, that your  
testimony today continues under oath?

A Yes, I do.

1  
2 MR. MacDONALD: I would like to mark  
3 as GPU Exhibit No. 129 a memo from Don  
4 Hallman to E. R. Kane, July 27, 1979, a  
5 "cc" to J. F. Walters.

6 (Memorandum from D. F. Hallman to  
7 E. R. Kane, subject: LER Review, copy  
8 to J. F. Walters, among others, was marked  
9 GPU Exhibit 129 for identification, as of  
10 this date.)

11 (Document handed to the witness.)

12 BY MR. MacDONALD:

13 Q Mr. Walters, is this a copy of the  
14 document you received on or about July 27, 1979  
15 in the regular course of business?

16 A I assume I received this document.

17 Q I will draw your attention to the  
18 first paragraph where it says, "I have reviewed  
19 F. R. Fahland's proposed system for handling  
20 LER's. Overall, it sounds workable and useful."

21 Had you seen a copy of F. R. Fahland's  
22 proposed system for handling LER's?

23 A No, I have not.

24 Q The next paragraph says, "As we  
25 discussed, we also intend to form and maintain

1  
2 Emergency Operating Guidelines (EOG's) to instruct  
3 our plants on how our NSS should be handled during  
4 off-normal conditions."

5 What are Emergency Operating  
6 Guidelines, as referred to in that paragraph?

7 A As best as I know it, we are talking about  
8 either the past Emergency Operating Procedures  
9 or any new procedures that would be written that  
10 would have the title of Operating Guidelines  
11 or Emergency Operating Guidelines.

12 Q Have you seen such copies of  
13 Emergency Operating Guidelines?

14 MR. KOLB: Are you asking him  
15 whether he has seen the specific ones  
16 referred to in the memo?

17 MR. MacDONALD: Copies of the  
18 Emergency Operating Guidelines.

19 MR. KOLB: Are you talking about  
20 Emergency Operating Guidelines as  
21 specifically described here, or just  
22 emergency operating guidelines in general?

23 MR. MacDONALD: In the general sense.

24 MR. KOLB: In the general sense.

25 A I think, yes, generally I have seen at



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least one I would consider an emergency operating guideline.

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Q What were the contents of that guideline?

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A It was a procedure titled as a Small Break Operating Guideline.

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Q That is Small Break Operating Guidelines produced after the TMI-2 accident?

9

10

A Yes, it was.

11

Q Do you know what F. R. Fahland's proposed system for handling LER's was?

12

13

A I do not recall that in any detail at all.

14

Q Do you recall it at all generally?

15

A No. I am not sure that I ever saw this proposed system.

16

17

Q Had you ever discussed it with anyone?

18

MR. KOLB: Will you read the question back, please?

19

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(Question read.)

21

A I don't believe I have ever discussed it with anyone.

22

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A Had you ever heard it discussed at any point in time?

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A Yes.

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Q When was that?

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A I think only in a general nature and I believe in some casual conversation with Mr. Hallman stating to me that he had been to certain meetings where this had been discussed, and we would probably receive some procedures as far as handling this in the future.

Q Did he describe what the system was to entail?

A No. The only thing I recall was that there would be additional or possible additional review of LER's by the Plant Performance Service Section.

Q What review of LER's was there prior to the TMI-2 accident by PPS?

A I don't recall ever having reviewed an LER prior to that time.

Q Aside from you personally, was there anyone within PPS who reviewed LER's prior to the time of the TMI-2 accident?

A I am not familiar with anyone in my organization that did review them.

Q Do you know if anyone in B&W who was charged with the review of LER's prior to the TMI-2 accident?

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2

A I don't recall any specific person, no.

3

4

5

Q Was there any specific group or section or unit that reviewed such LER's at B&W prior to the TMI-2 accident?

6

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A I don't believe I was aware at that time of any group that did.

8

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Q What distinguishes the Emergency Operating Guidelines, one, of which you described as Small Break Operating Guidelines, from other B&W instructions to sites or draft procedures that existed prior to the TMI-2 accident?

A Are we talking about the title of the document? Why the difference in title?

15

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17

18

Q No. The title and subject matter, substance.

A Generally I think they were the same content as previous documents had had.

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Q Are you saying the Small Break Operating Guidelines contained substantially the same material as did draft procedures before the TMI-2 accident?

23

A Substantially the same, yes.

24

25

Q Were there any revisions that were made in the Emergency Operating Guidelines after

1  
2 the TMI-2 accident from those draft procedures  
3 prior to the TMI-2 accident?

4 A I am not aware of any changes that were  
5 made to emergency procedures that were in  
6 existence before TMI-2.

7 Q What emergency procedures were there  
8 in existence prior to TMI-2?

9 A I don't know if I can recall them all.  
10 There were a LOCA procedure, loss of RCS pressure,  
11 main steam line break procedure, procedures such  
12 as ejected rods or dropped rod, unintentional  
13 boron dilution of the system, others. I don't  
14 recall the name of them right now.

15 Q Prior to the TMI-2 accident had you  
16 ever seen any LER's for any B&W plants?

17 A I don't recall having seen a document that  
18 I identified as an LER.

19 Q When you say you identified as an LER,  
20 do you recall seeing some other document that may  
21 have recounted the same information as an LER  
22 but which you didn't identify as such?

23 A I simply don't believe I was aware of an  
24 LER document as such.

25 Q Subsequent to the time of the TMI-2

1  
2 accident you have reviewed LER's for B&W plants;  
3 correct?

4 A I think so.

5 Q Do you do that on a regular basis?  
6 Does that come into PPS?

7 A I don't recall whether it -- I saw them on  
8 a regular basis or not.

9 Q Have you seen LER's after the TMI-2  
10 accident that deal with non-B&W plants?

11 A I may have, yes.

12 Q Do you recall any such?

13 A I certainly don't.

14 MR. MacDONALD: I would like to have  
15 marked as GPU Exhibit 130 for identification  
16 a memo from J. F. Walters to PPS Personnel  
17 dated October 10th, 1979.

18 (Memorandum dated October 10, 1979  
19 from J. F. Walters to Plant Performance  
20 Services Personnel, subject: Quick Look  
21 Reports, was marked GPU Exhibit 130 for  
22 identification, as of this date.)

23 (Document handed to the witness.)

24 Q Mr. Walters, this is a copy of a  
25 document you authored on or about October 10,

1979 in the regular course of business?

A Yes, it is.

Q The first paragraph states, "Since we are now receiving site problem reports for analysis and resolution from all reactor trips on operating plants, this memo is to define our specific tasks within PPSS."

Was this the first time that the Plant Performance Services Section personnel were receiving site problem reports for analysis and resolution from all reactor trips on operating plants?

MR. KOLB: When you say, is this the first time, what particular date are you referring to?

MR. MacDONALD: I am talking around the date of the memo.

A On a regular schedule basis, yes.

Q You had prior to this point in time been receiving SPR's on a nonregularly scheduled basis?

A Yes, by that, meaning from time to time we would receive SPR's on trips or other problems.



1  
2 Q The second paragraph says, "PPSS and  
3 Power Systems and Controls in Engineering have  
4 initial responsibility for analysis of resolution  
5 of these SPR's."

6 Was this procedure of PPSS, Plant  
7 Performance Services Section having initial  
8 responsibility for analysis of resolution of  
9 SPR's a procedure that was put into place after  
10 the TMI-2 accident?

11 A Yes, I believe it was.

12 Q Also in that second paragraph it  
13 talks about "Quick Look Report" prepared by Power  
14 Systems and Control and Plant Performance  
15 Services Section.

16 Will you describe what a "Quick Look  
17 Report" is?

18 A It would be a quick analysis, a quick look of  
19 the data contained in the SPR that would be  
20 received and an evaluation of that data as to  
21 whether or not the ensuing transient had  
22 responded as we thought plants should have  
23 under that particular transient or were they  
24 deviations from what we would have expected.

25 Q Prior to the TMI-2 accident the

1  
2 Plant Performance Services Section of Nuclear  
3 Services had responsibility for categorizing and  
4 analyzing SPR's; is that correct?

5 A Yes.

6 Q Do you know why that responsibility  
7 was shifted after the TMI-2 accident to the  
8 Plant Performance Services Section and Power  
9 Systems and Controls?

10 A I do not recall the specific reasons why a  
11 different policy was brought about.

12 Q Do you recall any reasons in general?

13 A No, I don't recall any.

14 Q Have you had any discussions with  
15 anybody in B&W regarding the change?

16 A I don't recall any.

17 Q In the third paragraph, the second  
18 sentence reads, "Also, the new SPR procedure  
19 prioritizes the SPR's..."

20 In what priority order are SPR's now  
21 arranged?

22 A As best I remember, they were giving a  
23 priority of one to four with each of those  
24 numbers representing what the specific service  
25 manager assigns a priority to that SPR.

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Q Have you assigned personally  
priorities to SPR's?

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A No, I have not.

5

Q Have you had other individuals within  
your section assign priorities to SPR's?

6

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A No, I don't believe so.

8

Q Have you seen SPR's that have been  
prioritized?

9

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A Yes.

11

Q Will you describe for me what the  
numbers assigned 1 through 4 mean in the priority  
range for SPR's?

12

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A As best I remember, it was a -- I believe  
it was on a time basis of a single day, a week,  
but I seem also to recall whether or not it was  
an SPR that they had evaluated to prevent the  
plant restarting or if the plant was down for  
some other specific reason that we should -- it  
was also prioritized as this had to be cleared  
up before the plant went back to power. Something  
along those natures.

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Q Would the 1 be the highest priority  
and 4 be the lowest in this numerical sequence?

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A As best as I recall.

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Q The SPR's that were prioritized with a number 1 had to deal with safety concerns of issues that needed action quickly or immediately?

A I don't believe that the classification of safety was the one that required it to be of a timely turnaround. I don't remember the details of it.

Q Who would you ask to find out the details of what the priorities of the SPR's mean?

A Well, I am saying at this time I don't recall what those particular numbers meant. I am sure I did in October of '79.

Q Who would you ask today if you wanted to determine what those priorities mean?

A Any of the service managers or assistant service managers in the Operating Plant Performance Group, Section.

Q Who would they be today?

A By name?

Q The ones you can recall.

A Rudy Straub, Mr. Williamson, Mr. Pittman, Mr. Cuvelier, Mr. Finnin, Mr. Veenstra. I beleive there are one or two more. I am drawing a blank on their names at the moment.

1  
2 Q On Page 2 of your memo, the first  
3 paragraph states, "Reactor Systems, at the  
4 moment, has the lead in PPSS in trying to  
5 analyze transients from reactor trips and  
6 determine 'How the plant is responding,' as  
7 designed or not, 'How the ICS is functioning,'  
8 and if the operators took the correct action  
9 during the transient."

10 Reactor Systems was your group, Mr.  
11 Walters?

12 A Yes, it was.

13 Q When it says, "Reactor Systems, at the  
14 moment has the lead in PPSS in trying to analyze  
15 transients from reactor trips..." does that mean  
16 at the time or around the time that this memo  
17 was written in October of 1979?

18 A That is correct.

19 Q For how long had you had that  
20 responsibility?

21 A I don't recall.

22 Q Was it a number of months, a number of  
23 years?

24 A No. I think it was mainly a matter of  
25 weeks preceding this memo.

1  
2 Q In that section I just read it has  
3 "...determine 'How the plant is responding,'  
4 as designed or not, 'How the ICS is functioning,'  
5 and if the operators took the correct action  
6 during the transient."

7 Are these some of the procedures  
8 and analyses that you would use in analyzing the  
9 SPR's In-plant Performance Services Section when  
10 that came to your attention?

11 A I don't believe I understood the question.

12 Q How would you analyze the SPR's if  
13 they came to your attention? What would you do  
14 to determine whether or not the SPR should be  
15 arranged in priority 1 to 4?

16 A I did not prioritize them. They came to  
17 me that way.

18 Q How would you determine, and what  
19 would you look at within the SPR to determine  
20 how the plant was responding as that language  
21 is used in the first paragraph on Page 2?

22 A We would look at the information contained  
23 in the SPR. It would consist of plotted data,  
24 columnar data, various input from the particular  
25 transient from that site, from a sequence of



1  
2 events off the plant computer, any -- generally  
3 any information that was obtained attached to  
4 the SPR came to us, we would as best we could  
5 look at that particular information and see if  
6 it was responding as we thought the plant should  
7 during that type of transient.

8 Q During the course of your review  
9 of SPR's prior to the time of the TMI-2  
10 accident, did you also review those SPR's in  
11 the same manner?

12 MR. KOLB: Would you read the  
13 question back, please?

14 (Question read.)

15 MR. MacDONALD: I will withdraw that.  
16 I will ask this question instead.

17 Q On the first page of GPU Exhibit 130,  
18 the last paragraph, the first sentence states:  
19 "At this time there is no clearly defined path  
20 for our analysis of each event and charge  
21 numbers for such work."

22 It continues on: "It is hoped that  
23 this will change..."

24 What advantages did you hope would  
25 result from this change that you talk about in

1  
2 the second sentence of GPU Exhibit 130, the last  
3 paragraph, the first page?

4 A That in the near future that we would get  
5 a normal work function and therefore charge  
6 numbers, administrative charge numbers in places,  
7 so that we -- that I knew that we had a  
8 continuing and regular piece of work load that  
9 would be coming in.

10 Q Why is that better than the method  
11 that was employed previously?

12 A Previously I had no generally scheduled  
13 work load that would require -- that was being  
14 performed on SPR's. Therefore, from time to  
15 time we would receive SPR's and to work on  
16 them required certain administrative details  
17 be solved by myself or charge numbers obtained  
18 for -- from the service managers to work on  
19 these pieces of information; and as a matter  
20 of doing business it is much more formal and  
21 much easier, administratively speaking, to  
22 have a standard charge number; when the project  
23 comes in, you immediately go to work on it,  
24 you know you have got a good charge number and  
25 freely flow through the project.

1  
2 Q Was one of the reasons why this was  
3 done after the TMI-2 accident because SPR's  
4 needed to be analyzed as they came in and not  
5 pushed aside for any length of time before they  
6 were evaluated?

7 MR. KOLB: Objection as to form.

8 Where does "pushed aside" come from?

9 MR. MacDONALD: Let me go back and  
10 rephrase that.

11 Q Was the reason that there was the  
12 change in procedure that you just discussed  
13 after TMI instituted because you needed a timely  
14 evaluation of SPR's as discussed in this memo  
15 on Quick Look Reports that was present -- that  
16 was not present prior to the TMI-2 accident?

17 MR. KOLB: Objection as to form.

18 The question assumes some things and it is  
19 also very confusing.

20 Q You can answer.

21 MR. KOLB: Do you understand the  
22 question, or do you find it confusing?

23 A It is confusing.

24 MR. KOLB: Why don't you restate it.

25 (Continued on following page.)

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Maybe break it down into parts.

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Q These changes that you have just

discussed and that were put into place

administratively by you to review SPR's after

the TMI-2 accident were done to provide quicker

evaluation of the substance of the material in

those SPR's; is that correct?

A I don't recall or have any firsthand

knowledge of why the procedures or the policy

was changed; that was related to me by Mr.

Hallman, that this would be our ensuing policy

on these SPR's when they arrived.

Q You just implemented that policy?

A That's correct.

Q Did you have any discussions with

Mr. Hallman regarding that policy?

A I am sure I did in certain contexts, but

I certainly don't recall any discussion today.

Q Did the new system make work on the

SPR's flow more quickly and efficiently after

the TMI-2 accident?

A Administratively it certainly did.

Q Was the "Quick Look" program

intended to provide the resolution to the

1  
2 SPR's?

3 MR. KOLB: Objection as to form.

4 I am not sure what you mean by resolution  
5 of the SPR's.

6 Q Was it intended to resolve the  
7 issues that may have been raised by the SPR's  
8 which is in the second paragraph?

9 MR. KOLB: Would you be specific  
10 as to which part of the second paragraph?

11 MR. MacDONALD: The resolution of  
12 these SPR's in the first sentence.

13 MR. KOLB: Actually I am not  
14 certain whether it matters, but the  
15 phrase here is, I think, somewhat different  
16 from what you just said. It says, "have  
17 initial responsibility for analysis of  
18 resolution of these SPR's."

19 MR. MacDONALD: The question is  
20 whether or not the Quick Look Report is  
21 intended to provide some resolution of these  
22 SPR's.

23 A As best I remember, we had the initial  
24 responsibility to evaluate the information on the  
25 transient data that we had received.

1  
2 At that point in time and based on  
3 whatever priority had been assigned to it, we  
4 would then evaluate ourself or probably in most  
5 cases go and talk with the Power System & Control  
6 Section and Engineering and pass along our  
7 opinion as to our evaluation of that particular  
8 site problem report, and at that time agree that  
9 further work was needed or that the resolution  
10 was that we saw no problem with that particular  
11 information.

12 Q On Page 2, the end of the first  
13 paragraph, the sentence reads, "The bottom line  
14 is that we are trying to establish how a B&W NSS  
15 responds during all transients."

16 Was this a new outlook on the  
17 evaluation of SPR's that was initiated after the  
18 TMI-2 accident?

19 MR. KOLB: I am going to ask you to  
20 define "new outlook." What do you mean  
21 by that?

22 MR. MacDONALD: Was this a new  
23 procedure, a new way of evaluating SPR's  
24 after the TMI-2 accident?

25 A I think the procedure formalized an



1  
2 analysis of the data that came in. This allowed  
3 a much better approach to the specific  
4 information or the SPR data that was coming in  
5 for essentially a different purpose than we had  
6 in the past.

7 Q You used the phrase "much better  
8 approach."

9 What did you mean by "much better  
10 approach"?

11 MR. KOLB: Just so we are clear,  
12 would you specifically indicate which  
13 phrase you are referring to, so that the  
14 record is clear?

15 MR. MacDONALD: I just did. I  
16 thought I said you used the phrase, "much  
17 better approach."

18 MR. KOLB: I know --

19 MR. MacDONALD: It was in his  
20 answer.

21 MR. KOLB: You are not talking about  
22 the memo?

23 MR. MacDONALD: No, I am talking  
24 about his last answer.

25 MR. KOLB: Oh, all right.

1  
2 A It offered a more thorough approach in  
3 that the information obtained from the side,  
4 the complete procedure for handling it offered  
5 a more thorough evaluation of that  
6 information in all transients where in the past  
7 we may have done this only on transients that  
8 were made aware to us by the specific utility.

9 Q You stated in your answer that the  
10 phrase that you used was for different purposes  
11 than it had been used in the past.

12 Will you explain what you mean by  
13 "different purposes"?

14 A Well, in the past we usually knew about  
15 transients that were more than normal, let us  
16 say, transients. Now we had a process by  
17 which we were looking at each transient that  
18 occurred on a plant, and this allowed a  
19 categorization or process of identifying a much  
20 wider range of transients whether it be only  
21 slightly abnormal, whether it be an entirely  
22 normal transient that had occurred at a plant,  
23 so we were now developing -- or we had developed  
24 in this case the capability of looking at all  
25 transients and giving an evaluation of each of

1  
2 these transients.

3 Q What was there about the transient  
4 response of the NSS that was not known by B&W  
5 at the time that this new procedure was put into  
6 place?

7 MR. KOLB: Objection as to form.

8 You are assuming that something was not  
9 known. I don't believe that's been stated.

10 MR. MacDONALD: Let's go to the  
11 last sentence of the first paragraph on  
12 the second page.

13 Q I am trying to establish how a B&W  
14 NSS responds during all transients.

15 A That simply means that B&W analysis covers  
16 a wide range of transients. However, the B&W  
17 NSS is dependent on a secondary plant and  
18 how it functions, and we -- that varies from  
19 time to time on a specific utility as well as  
20 from one plant to the other.

21 Q What was your understanding as to  
22 why B&W embarked on this expanded analysis of  
23 plant transients after the TMI-2 accident?

24 A I remember only that Mr. Hallman had  
25 related to me that a new policy had been

1  
2 communicated to him for evaluation of or  
3 looking at transients on the B&W NSS.

4 Q Did you have any discussions with  
5 Mr. Hallman as to why this new procedure was  
6 being implemented?

7 MR. KOLB: We already had that  
8 question, and he gave you an answer.

9 MR. MacDONALD: I will just ask it  
10 again if indeed it has been asked.

11 MR. KOLB: I am not sure what you  
12 said. You said you are asking it again?

13 MR. MacDONALD: Yes, if indeed it has  
14 been asked.

15 MR. KOLB: I think as a general  
16 proposition that we ought not to ask the  
17 questions over and over; and that one was  
18 asked just a few minutes ago.

19 The witness can try to answer again,  
20 but I wish you would try to avoid  
21 duplication as much as possible.

22 Do you understand the question?

23 THE WITNESS: I would like to have it  
24 read back.

25 (Question read.)

1  
2 A I don't recall any conversation with Don  
3 about why it was being implemented other than  
4 what I previously said, that he said it had been  
5 passed along to him to institute such a program.

6 Q You mean you wrote this memo without  
7 any understanding as to why the Plant  
8 Performance Services Section was going to analyze  
9 all transients?

10 A I don't believe I came to that conclusion,  
11 no.

12 Q Then you did have some understanding  
13 as to why there was to be analysis of all  
14 transients.

15 A I have my own opinion why we would do it.

16 Q What is that opinion?

17 A It is my opinion that this is certainly a  
18 positive approach that all transients, given  
19 infinite funding and manpower, should be looked  
20 at.

21 Q That was not the case prior to the  
22 TMI-2 accident at B&W?

23 MR. KOLB: At B&W as a whole, or  
24 are you just talking about at the section?

25 MR. MacDONALD: At B&W.

1  
2 A I am not aware that there weren't people  
3 that -- within B&W that didn't -- I am not aware  
4 that there are sections that didn't look at  
5 each of the SPR's that came in before my Plant  
6 Performance Service Section did.

7 Q In your previous answer you used the  
8 phrase "positive approach."

9 Why is it a positive approach to  
10 analyze all transients?

11 A Well, as an engineer it is certainly  
12 beneficial to be able to broaden your data base  
13 at any time for experience purposes.

14 Q It would broaden the knowledge  
15 within B&W, the capabilities of its NSS during  
16 transients?

17 A Yes, it certainly would occur.

18 Q What changes might need to be made  
19 in operating procedures or design bases in order  
20 to effectuate a better NSS system?

21 MR. KOLB: Could I hear the question  
22 again, please?

23 (Question read.)

24 MR. KOLB: I don't understand that  
25 question. I will object to it as to form.



1  
2 A If the information was evaluated as  
3 something that could lead to a better NSS or a  
4 higher, higher availability for an NSS, yes, it  
5 would result in changes.

6 Q Prior to the TMI-2 accident did that  
7 result from any analyses of SPR's, that is,  
8 changes in procedures for operator action or  
9 design of the NSS system?

10 MR. KOLB: I will object to that,  
11 and I will ask you to rephrase it. I mean,  
12 it is just too confusing.

13 MR. MacDONALD: Well, I don't think  
14 there is anything confusing about it, but  
15 if the witness has trouble, he can ask me  
16 to rephrase the question.

17 MR. KOLB: I have trouble, and I  
18 think you ought to restate the question.

19 Do you find it confusing?

20 THE WITNESS: Yes, I would like to  
21 have it restated.

22 MR. MacDONALD: All right.

23 Q Were there any changes to operating  
24 procedures or design of the NSS that arose out  
25 of analyses of SPR's prior to the TMI-2 accident?

1  
2 A Yes, I remember over a period of time that  
3 there was probably specific hardware changes  
4 and/or changes to set points or information of  
5 that sort made as a result of SPR's. I am not --  
6 I don't remember any specific ones right now.

7 Q Can you recall how long some of  
8 those changes took?

9 MR. KOLB: I don't understand.  
10 "Took" in what sense?

11 MR. MacDONALD: Took to resolve in  
12 either the production of new operating  
13 procedures or the design change of the NSS.

14 MR. KOLB: From what point?

15 MR. MacDONALD: From the point in  
16 time that the SPR's were analyzed.

17 A Again I am -- there were certain SPR's  
18 that I am sure resulted in a very quick  
19 turnaround, and there were other SPR's that took  
20 quite significant time to get a resolution to.

21 Q Was the information from the Quick  
22 Look Reports, evaluations of the SPR's  
23 disseminated throughout B&W?

24 A I don't recall the extent of the  
25 distribution of the Quick Look Reports.

1  
2 Q Who was in charge of distributing  
3 the Quick Look Reports?

4 A I believe Mr. Denny Napir was.

5 Q In what section was Mr. Napir?

6 A He is a project manager in the Customer  
7 Service Department.

8 Q On Page 3 of your October 10, 1979  
9 memo there is a graph, and on that graph it has  
10 a left-hand section, "Pressurizer Level inches,"  
11 "RC Pressure PSIG, "TAVE," those three parameters,  
12 at least.

13 Will you explain to me what each of  
14 those will tell you about the state of an NSS  
15 during a transient?

16 MR. KOLB: Objection as to form.

17 You can try to answer if you  
18 understand the question.

19 A The specific parameters called out here  
20 were -- are the usual parameters that you would  
21 initially look at to compare with any previous  
22 analysis, calculations or data available from a  
23 variety of sources. They are essentially a  
24 very quick and good parameter for categorizing  
25 a particular transient.

Q What does the "Tave" stand for?

A It's the average temperature in the RCS.

Q The average temperature between the hot leg and the cold leg?

A Yes, that is correct.

Q What does that parameter tell you about the condition of the system?

A It tells you the energy content that the system retains during a transient or has during a transient as compared with an analysis or an expected reading of this particular parameter.

Q Is it a good parameter for measuring the performance of the system during a transient?

A It is one of various parameters that are good, yes.

Q The other two parameters that I mentioned were pressurizer level and RCS pressure.

What were your reasons for selecting pressurizer level and RCS pressure on that graph?

MR. KOLB: I will object as to form again.

A Simply that as an initial evaluation of any transient, there are various parameters that should be looked at for an evaluation of that

1  
2 transient.

3 I chose these four, one of my  
4 engineers chose these five parameters, or as the  
5 first ones to look at when we received the  
6 information.

7 Q One of the things you would look at  
8 is whether RCS pressure and pressurizer level  
9 were going in the same direction during a  
10 transient?

11 A I don't recall making that assumption.

12 Q Did you know that RCS pressure and  
13 pressurizer level go in opposite directions  
14 during a transient?

15 A At what point in time?

16 Q At any point in time during a  
17 transient.

18 MR. KOLB: Why don't you read the  
19 question back?

20 MR. MacDONALD: Let me rephrase that,  
21 and try it this way.

22 MR. KOLB: O.K.

23 Q Do pressurizer level and RCS pressure  
24 always go in the same direction during the course  
25 of a transient?

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MR. KOLB: I still have trouble with your asking him again factual information as he sits here today.

If you want to ask him what he knew at the time of the events in issue or at the time of a memo that is relevant, that is different --

MR. MacDONALD: Let's do it at the time of October 10, 1979, when he wrote the memo, since we are discussing the memo.

MR. KOLB: Why don't you repeat the question so Mr. Walters has it in mind?

MR. MacDONALD: Let me just restate it so Charlie doesn't have to go back and read it.

BY MR. MacDONALD:

Q At the time you wrote this memo, Mr. Walters, did you know that pressurizer level and RCS pressure always trend in the same direction during a transient?

MR. KOLB: I object to this as to form. You are assuming a fact. You are assuming that that's correct.

MR. SELTZER: He is asking if that



1  
2 is correct.

3 MR. KOLB: He did that when he  
4 phrased the question previously, but this  
5 time he assumed it was correct.

6 MR. MacDONALD: I am just asking  
7 Mr. Walters.

8 MR. KOLB: Why don't you just ask it  
9 again as a question and not assume a fact.

10 BY MR. MacDONALD:

11 Q You may answer.

12 A Would you ask -- I would like to have the  
13 question asked again.

14 Q Do you know whether pressurizer level  
15 and RCS pressure always trend in the same  
16 direction?

17 MR. KOLB: And you are asking his  
18 opinion as of the time of this memo?

19 A At the time I wrote this, October 10th,  
20 1979 memo, I indeed knew that they do not always  
21 trend in the same direction in every case.

22 Q When did you first learn that they do  
23 not always trend in the same direction in every  
24 case?

25 A I don't remember.

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Q Was it prior to the time of the  
TMI-2 accident?

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A I really don't recall that, either.

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Q Do I understand that from your last  
answer it is your testimony that prior to the time  
of the Three Mile Island accident you did not  
know whether or not pressurizer level and RCS  
pressure could trend in opposite directions during  
the course of a transient?

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MR. KOLB: First of all, you are  
asking him what his testimony was just a  
few moments ago. It seems to me --

MR. SELTZER: He is trying to  
clarify --

MR. KOLB: May I finish? You are  
asking him to tell you what he just  
testified to, and you can read that yourself.

Secondly, you are mischaracterizing  
the testimony, and I think you did it  
with intent to mischaracterize the  
testimony; and I object to that.

MR. MacDONALD: No, I don't think  
I did it with intent.

MR. KOLB: Why don't we go back and

1  
2 read the testimony he just gave.

3 MR. MacDONALD: I am asking for an  
4 understanding of his answer that he just  
5 gave, and I think I am entitled to know  
6 what he meant by his last answer; and I  
7 would like to know whether or not it was  
8 his understanding that prior to the time  
9 of the Three Mile Island accident he did  
10 not know that pressurizer level and RCS  
11 pressure could trend in opposite directions.

12 MR. KOLB: Now, the way you put the  
13 question is confusing because you have put  
14 into it a couple of phrases that are  
15 ambiguous.

16 If you want to ask the question  
17 specifically, I don't have any objection  
18 to that, but you have to be clear; and I  
19 won't let you go back and mischaracterize  
20 prior testimony. Just ask him the question  
21 straight out.

22 MR. MacDONALD: I don't think I am  
23 mischaracterizing the prior testimony.

24 BY MR. MacDONALD:

25 Q The question was: It is a fact, is

1  
2 it not, that prior to the TMI-2 accident you did  
3 not know the pressurizer level and RCS pressure  
4 could trend in opposite directions?

5 A I just do not remember at what time I  
6 became aware of that, of their coincident or  
7 not trending on those two variables.

8 Q So, as you sit here today, you  
9 couldn't positively testify that you did know that  
10 RCS pressure and pressurizer level could trend in  
11 opposite directions prior to the TMI-2 accident?

12 THE WITNESS: Would you read the  
13 question back, please?

14 (Question read.)

15 MR. KOLB: I am going to object as  
16 to form, because I think the question is  
17 still confusing. I don't know if the  
18 witness is able to answer this one or not.

19 THE WITNESS: I believe I have  
20 already said that I can't remember when I  
21 became aware of that, of that particular  
22 instance.

23 Q So you can't positively testify  
24 today that in fact before the TMI-2 accident you  
25 knew that RCS pressure and pressure level could

1 trend in opposite directions; is that correct?

2 A I cannot testify when I became aware that  
3 they trended in opposite directions, at what  
4 point in time I learned that.

5 Q When did you first learn of a  
6 transient that occurred at the Davis-Besse plant  
7 on September 24th, 1977?

8 A I don't remember when I first became aware  
9 of the transient.

10 Q Was it sometime after the transient  
11 occurred?

12 A That is safe to say.

13 Q How soon after that September 24th,  
14 1977 transient do you believe that you became  
15 aware that such transient did occur?  
16 Approximately.

17 A Sometime prior to November of that year.

18 Q November of 1977?

19 A Yes.

20 Q Do you recall from whom you learned  
21 that a transient had occurred at the Davis-Besse  
22 plant on November 24, 1977.

23 MR. KOLB: Are you asking who he  
24 learned from first?  
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MR. MacDONALD: That is correct.

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A I do not recall the person that I had first communications with on that particular transient.

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Q What was the first discussion that you can recall regarding the Davis-Besse transient in September of 1977?

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A I believe the first discussion I recall was a memo from --

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MR. KOLB: He is asking for discussion.

13

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A I thought I already answered that question. I don't recall the first discussion with anyone, any specific person.

16

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Q Do you recall any discussions at any point in time regarding the Davis-Besse transient in September of 1977?

19

20

21

A I cannot positively say that I recall discussion with any particular person on that transient.

22

23

24

Q Do you recall in general any discussions with people at B&W regarding that transient?

25

MR. KOLB: I just want to be certain



1  
2 that we are clear. You are not talking  
3 now about the first time he had discussions,  
4 you are just asking about whether he had  
5 any discussions at all; is that correct?

6 MR. MacDONALD: Yes.

7 MR. KOLB: Do you understand that  
8 any discussion at all is the question.  
9 Earlier the question was as to the first.

10 A Yes, I have had discussions about that  
11 particular transient with people.

12 Q Can you recall the first of those  
13 discussions?

14 MR. KOLB: I think you have asked  
15 that question now a couple of times.

16 I will let him tell you again, but I  
17 think we pretty well covered that question.

18 MR. SELTZER: I thought he is asking  
19 now of the conversations which he can recall  
20 which is the first one.

21 MR. KOLB: That is not the way I  
22 understood the last question; but I will  
23 certainly take that question and allow the  
24 witness to answer it that way, that is, if  
25 you know.

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Do you understand it? Which is the

3

first one you remember?

4

Q Of the discussions that you have just

5

stated that you recall, which one was the first

6

one that you can recall having?

7

A I believe the first discussion on that

8

transient that I recall was with Mr. Herb Smith.

9

Q When was that?

10

A I believe it was sometime in November of '77.

11

Q Did you review any written material

12

regarding the Davis-Besse transient on September

13

24, 1977?

14

MR. KOLB: You are not asking him

15

whether he reviewed the material on that

16

date; you are asking him whether he

17

reviewed anything about the transient on

18

that date?

19

MR. MacDONALD: Yes.

20

A I believe I did, but I am not certain at

21

what point in time.

22

Q Isn't it a fact that you reviewed

23

the SPR's that were written at B&W regarding

24

that September 24, 1977 transient at Davis-Besse?

25

A I would not have as a matter of course

1  
2 reviewed that SPR.

3 Q That wasn't my question.

4 My question was, did you indeed  
5 review those SPR's regarding the Davis-Besse  
6 September '77 transient?

7 MR. KOLB: SPR's or SPR?

8 MR. MacDONALD: Well, I said  
9 SPR's before.

10 A I don't recall reviewing an SPR on that  
11 transient.

12 Q I would like to call your attention to  
13 a question and answer you gave in response to  
14 questions at the NRC Special Inquiry Group  
15 deposition Tuesday, October 2nd, 1979 at Pages 6  
16 and 7 of your deposition, wherein you state,  
17 "My knowledge of that transient was peripheral at  
18 best. I believe Lee looked at the transient  
19 plotted data, at the time I made a response to Mr.  
20 Kelley's memo, and that's about it. I was not  
21 a part of the evaluation team that went into the  
22 transient in detail.

23 "Question: How did you acquire the  
24 information that you had?

25 "Answer: It was part -- I believe

1  
2 it was part of an SPR, site problem report, that  
3 was submitted from the site."

4 Was that testimony accurate at the  
5 time you gave it, Mr. Walters?

6 MR. KOLB: Would you read that  
7 question back so the witness has the  
8 question?

9 MR. MacDONALD: The question was:  
10 Was that testimony accurate at the time you  
11 gave it?

12 MR. KOLB: Why don't you take a  
13 moment to read it.

14 (Transcript handed to the witness.)

15 THE WITNESS: Would you repeat the  
16 question, please.

17 (Question read.)

18 A I don't recall if that is indeed how I  
19 obtained the information or not.

20 Q Were you indeed asked the question  
21 and did you indeed give the answer which I read  
22 into the record at Page 6 and 7 of your Rogovin  
23 testimony?

24 A Yes, I did.

25 Q And at the time you gave it was it a

1  
2 truthful answer?

3 A To the best of my knowledge.

4 Q And as you sit here today is it still  
5 a truthful answer?

6 MR. KOLB: I know the question is  
7 intended to get at a particular point, but  
8 I think we have to parse out for the witness  
9 what you mean by "truthful."

10 Do you mean, did he mean was he  
11 honest in his response initially or is he  
12 able to sit here today and tell you it is  
13 accurate? There is a difference.

14 MR. MacDONALD: Well, we are looking  
15 at the truthfulness at this point in time  
16 as he sits here today, is it an honest  
17 answer.

18 MR. KOLB: "Honest" meaning was he  
19 trying to tell the truth when he gave the  
20 prior testimony, or is he able to affirm  
21 today that that is accurate? I don't mind  
22 if you ask him both of those questions  
23 separately, but I think it's something he is  
24 entitled to have you break that down so  
25 that he can distinguish between his

1  
2 honesty or his credibility and his ability  
3 to state that everything he has said there  
4 is accurate.

5 BY MR. MacDONALD:

6 Q At the time you gave that answer  
7 that was an honest and truthful answer, to the  
8 best of your knowledge as you sit here today;  
9 correct?

10 MR. KOLB: I have the same problem.

11 As he sits here today are you asking him  
12 whether at the time he meant his answer to  
13 be truthful; is that what you are asking  
14 him?

15 MR. MacDONALD: That's correct.

16 A Yes, I meant my answer to be truthful at  
17 that time.

18 Q In that answer you said that you  
19 looked at transient plotted data in the context  
20 of a Kelly memo, I don't know whether the date  
21 is in that answer, but is that a memo that Joe  
22 Kelly wrote on or about November 1st, 1977?

23 A I believe that is correct.

24 Q Was that transient plotted data that  
25 you reviewed part of an SPR on Davis-Besse?



1  
2 MR. KOLB: I object as to form,  
3 because you are now assuming that he in  
4 fact reviewed the data referred to in  
5 that answer and he has just told you a few  
6 moments ago that he can't recall.

7 MR. MacDONALD: No --

8 MR. KOLB: So you are not entitled  
9 to assume it to be a fact. I don't object  
10 to your asking him the question straight out.

11 MR. MacDONALD: I am asking him a  
12 different question from the SPR. I am  
13 asking him, was that transient plotted data  
14 that he refers to in his answer transient  
15 plotted data that was included in the SPR  
16 in Davis-Besse.

17 A It may have been. I do not recall.

18 MR. MacDONALD: Why don't we take a  
19 short break?

20 MR. KOLB: Yes, that is a good time for  
21 it.

22 (Recess taken.)

23 BY MR. MacDONALD:

24 Q Mr. Walters, did you attend any  
25 meetings at B&W within the time frame of a couple

1  
2 of months after the Davis-Besse September 1977  
3 transient at which the transient and what  
4 occurred during the transient was discussed?

5 A I don't recall going to any meetings that  
6 the specific transients were discussed.

7 Q You don't recall attending a meeting  
8 that was presided over by Mr. Kelly at which  
9 some 30 to 40 people at B&W were present shortly  
10 after the Davis-Besse transient?

11 A I recall that I was not present at that.

12 Q Do you know when that meeting took  
13 place?

14 A No, I do not even recall when it took place.

15 Q Have you had any discussions with  
16 anyone about that meeting?

17 MR. KOLB: Apart from counsel?

18 MR. MacDONALD: Apart from counsel.

19 A I don't believe I have.

20 Q Do you know who was in attendance at  
21 that meeting?

22 A No, sir.

23 Q At any point in time after the  
24 Davis-Besse transient did you have any discussions  
25 with anyone at B&W regarding what went on at that

1  
2 meeting held at B&W shortly after the Davis-Besse  
3 transient?

4 A To the best of my knowledge I had no  
5 discussions with anyone about that particular  
6 meeting.

7 Q Did you have any discussions with  
8 anyone at which the subject of that meeting came  
9 up?

10 MR. KOLB: I take it all these  
11 questions are apart from counsel?

12 MR. MacDONALD: That is correct.

13 MR. KOLB: So I don't have to keep  
14 interjecting.

15 A I don't recall any conversations with anyone  
16 about that particular meeting or information from  
17 that particular meeting.

18 Q You stated earlier that you did have  
19 discussions after the Davis-Besse September 1977  
20 transient regarding that event, one of which you  
21 mentioned was a conversation with Herb Smith in  
22 or about November of 1977.

23 Can you recount for us what the  
24 subject matter of that conversation was?

25 MR. KOLB: Would you repeat the

question, please?

(Question read.)

A The subject matter of that particular conversation was a memo that I had received from Mr. Kelly.

Q And when did you receive a memo from Mr. Kelly?

A Around the early part of November of '77.

Q And Mr. Smith was a member of the Plant Performance Services Section of B&W?

A No, he wasn't.

Q What group was he in at B&W?

A He was in the Mechanical Equipment Section of Nuclear Service.

Q To the best of your recollection what did you say to Mr. Smith at that point in time and what did he say to you?

A I don't recall an initial conversation with him.

Q You don't recall in substance what you said to him and what he said to you during that conversation in or about November of 1977?

A The conversation I recall was concerning or of the idea that here was Mr. Kelly's memo, would

1  
2 he provide any comments to me on this memo,  
3 something of that nature.

4 Q Did you show him a copy of Mr. Kelly's  
5 memo?

6 A Yes.

7 Q Did you ask him for any written  
8 comments on that memo?

9 A I don't recall asking for any specific  
10 written comments, no.

11 Q Did he read the memo in your  
12 presence?

13 A No, he did not.

14 Q Did he provide you with any comments  
15 on the memo at any subsequent point in time  
16 after that discussion?

17 A Yes, he did.

18 Q What did he say to you?

19 A He made some comment about there was too  
20 many "and's" in the prescription as provided by  
21 Mr. Kelly in the memo.

22 Q What was the reason that you asked  
23 Mr. Smith for his comments on the memo?

24 A Upon reading the memo I had formed certain  
25 conclusions or concerns about the memo, and I

1  
2 took it to Mr. Smith to get another opinion on  
3 the particular subject of my concerns.

4 Q Why did you go to Mr. Smith in  
5 particular?

6 A I have a habit of seeking out people that  
7 I think are aware or knowledgeable on certain  
8 items. Mr. Smith had been a training instructor  
9 future -- previous to this time, and I had  
10 conversations in the past with him along general  
11 or specific topics.

12 Q Did you seek comments from anybody  
13 else within B&W on the Kelly memorandum?

14 A I am not certain. I believe I did.

15 Q Who would those people be?

16 A The only other person that comes to mind  
17 is Mr. Cal Goslow.

18 Q Who is Mr. Goslow?

19 A Mr. Goslow was an engineer that reported  
20 to me, at least part of his work he reported to  
21 me.

22 Q You stated a moment ago that you said  
23 "I had concerns after reading the Kelly memo."

24 What concerns did you have after reading  
25 the memo that prompted you to go and speak to



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Mr. Smith?

A Initially I had the concern that the prescription as offered by Mr. Kelly in his memo would be difficult or at least would require quite a bit of thought; and how to pass this along to the operators so they would understand it in a very easily and readily acceptable manner.

Q Did you think that Kelly voiced a valid concern in his memo that he sent to Distribution?

A I really don't recall coming to a conclusion either way.

Q Why did you seek out Mr. Cal Goslow for his comments on the Kelly memorandum?

A For essentially the same reasons I had previously talked to Mr. Smith. He had similar background as Mr. Smith.

Q In the Training Department?

A That's correct.

Q As an instructor?

A Yes.

Q Had he ever been a lead instructor?

A I believe that is correct.

Q Had Mr. Smith?

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A I think so also.

Q Was the conversation that you had with Mr. Goslow at or about the same time as the conversation you had with Mr. Smith?

A I think in a week of each other.

Q In substance what did you say to Mr. Goslow and what did he say to you during the course of that conversation?

A As best I remember, I related some details or some words of the transient to Mr. Goslow, and we talked in a very general nature about how the transient had unfolded, something of that nature.

Q Did you show him a copy of the Kelly memorandum?

A I don't recall that I did or I did not show him the copy of it.

Q Can you recall what Mr. Goslow's, the substance of Mr. Goslow's comments during the course of that discussion were?

A I only remember something pertaining that we believe the operators had responded in a correct manner or that maybe we didn't see anything specifically about the transient that caused us any specific concern.

1  
2 Q In other words, in your discussion  
3 with Mr. Goslow about the Kelly memorandum, you  
4 came to the conclusion that the operators had  
5 acted correctly during the course of the  
6 Davis-Besse transient?

7 MR. KOLB: Are you trying to say  
8 that that is what he just said, or are you  
9 asking a fresh question, is that the  
10 conclusion he reached; is that your intent?

11 MR. MacDONALD: That is the question.

12 MR. KOLB: That wasn't the question.  
13 You asked him whether he meant by his prior  
14 statement what you just stated, and I don't  
15 think that is at all fair.

16 Why don't you ask the question again?

17 MR. MacDONALD: Read back the  
18 question. I will stand on that.

19 (Question read.)

20 A I don't recall that I came away with that  
21 particular understanding to that particular  
22 conversation.

23 Q But at the time of the conversation  
24 was that your understanding of the action of the  
25 operators that in fact at the Davis-Besse

transient their actions had been correct?

A I think I made up my own mind to the information that I had at that time that that was correct.

Q Why was the training background that Mr. Goslow and Mr. Smith had important in analyzing the concerns that Mr. Kelly raised?

A Only in the context that they were people that I generally contacted with respect to their opinion on any of a number of issues.

Q Was it their background and the dealing they had in the past with the actual training of operators at B&W that you considered gave them better insight into what operator actions might be in response to the particular transient that was being discussed?

MR. KOLB: Would you read the question back, please?

(Question read.)

A I don't believe I ever came to a realization that I was asking them for their opinion on what they had actually trained operators. We were discussing the matter at hand, the particular Kelly memo at hand, and that is essentially

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about all I remember about it.

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Q Did you consider their background in training of operators important to your understanding of the concerns that Mr. Kelly raised in his memo?

7

8

A Yes, I -- part of my reason for talking to them was their background in training.

9

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11

Q Where did you obtain your information on how the transient evolved at Davis-Besse during your discussion with Kal Goslow?

12

13

A I don't recall any specifics in that discussion with Mr. Goslow.

14

15

16

Q Did you discuss with Mr. Goslow the evolution of the Davis-Besse transient, the sequence of events?

17

18

19

20

A I must have, but I don't recall that.

21

22

23

24

25

Q Did you do the same with Mr. Smith?

A I must have, but I don't recall the specifics or any general conversation.

Q Where did you obtain the information regarding the evolution of sequence of events of the transient that you discussed with both Mr. Smith and Mr. Goslow?

26

MR. KOLB: Would you read the question

back, please?

(Question was read.)

MR. KOLB: I will object as to form,  
because you are assuming facts.

The witness can answer if he is able.

A I don't recall where I obtained the  
information.

Q Was one of the sources the Kelly  
memorandum?

A Yes.

Q Were there any other sources?

A The best that I can say is that there was.

Q Do you recall what those other sources  
were?

A I certainly don't. At least where they  
came from.

Q How did you obtain a copy of the  
Kelly memorandum?

A It came to me in my in-basket from Mr.  
Hallman.

MR. MacDONALD: I would like to  
mark as GPU Exhibit 131 a copy of a memo  
from J. J. Kelley to Distribution,  
November 1, 1977.



(Memorandum dated November 1, 1977  
from J. J. Kelly to Distribution, subject:  
Customer Guidance On High Pressure  
Injection Operation, was marked GPU  
Exhibit 131 for identification, as of this  
date.)

(Document handed to the witness.)

Q Mr. Walters, is this a copy of a  
memo that Mr. Hallman routed to you in or about  
November, early November of 1977?

A Yes, it is.

Q In the top right-hand corner it has  
the initials "JFW" and says, "What do you think?"

Is that Mr. Hallman's writing?

A Yes, it is.

Q And that was a question to you from  
Mr. Hallman?

A That is correct.

Q Did you have any discussions with Mr.  
Hallman about the contents of the Kelly  
memorandum?

A I don't recall any discussions with him.

Q Either before or after the receipt  
of this memo?

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A In the time frame of this memo, I don't recall any discussssions with him.

3

4

Q Do you recall any discussions with him about this memo outside of the time frame that the memo was written?

5

6

7

A I don't recall that, either.

8

Q You don't recall that you had any?

9

A That's correct.

10

Q In the third line at the top of this memo it says "Cust. Generic."

11

12

Does "Cust." stand for customer?

13

A Yes.

14

Q Does "generic" mean it is generically applicable to all 177 plants?

15

16

A Yes, that's the way I read it.

17

Q In the first sentence of this memorandum Mr. Kelly states, "Two recent events at the Toledo site have pointed out that perhaps we are not giving our customers enough guidance on the operation of the high pressure injection system."

18

19

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23

Did you know at any point in time before you received this memo what the details were of the two events that Mr. Kelly referred

24

25

1  
2 to in the first sentence of his November 1st,  
3 1977 memo?

4 A I do not believe I knew any details prior  
5 to receiving this memo of those events.

6 Q He gives a reference in that first  
7 paragraph to the transient that we have been  
8 speaking of, the September 24, 1977 transient,  
9 and also to one on October 23rd, 1977.

10 Do you know what the circumstances  
11 were in the October 23rd, 1977 transient?

12 MR. KOLB: Are you asking what  
13 he knows now or did he know at the time?

14 MR. MacDONALD: At the time he  
15 received the memo.

16 A I do not believe I was aware of the second  
17 transient at TECO.

18 Q At the time you received the memo or  
19 at any time thereafter did you know of the  
20 circumstances of the second transient on  
21 October 23rd, 1977?

22 A I don't recall that I did.

23 Q He says in the last sentence of that  
24 first paragraph that "In a similar occurrence on  
25 October 23, 1977, the operator bypassed high

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pressure injection to prevent initiation, even though reactor coolant system pressure went below the actuation point."

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At any time subsequent to the November 1st, 1977 memo did you learn of any other events which occurred on October 23rd, 1977 at the Davis-Besse plant that expanded on what Mr. Kelly has stated in that sentence?

MR. KOLB: When you say "at any time," do you mean to bring this up to the present or --

MR. MacDONALD: Let's deal with it at any time prior to the TMI-2 accident and we will deal with it afterwards.

MR. KOLB: Fine.

A I don't fully remember the question.

Q Aside from the information that Mr. Kelly conveyed to you or that you understood from that particular sentence, at any time after November of 1977 did you come to know of any more information about that October 23rd, 1977 transient --

MR. KOLB: Up to the time --

Q Prior to the TMI-2 accident.

1  
2 A I don't recall that I ever had any  
3 information that I directly related to the  
4 October 23rd incident at Davis-Besse.

5 Q Did you ever discuss that October  
6 23rd incident at Davis-Besse with anyone up  
7 until the time of the TMI-2 accident?

8 A Not that I recall.

9 Q You never discussed it with Mr.  
10 Kelly that you can recall?

11 A I am almost certain I never discussed it  
12 with him.

13 Q Or with Mr. Hallman?

14 A I do not believe I discussed it with him.

15 Q Subsequent to the TMI-2 accident  
16 have you discussed that transient of October 23,  
17 1977 with anyone within B&W?

18 MR. KOLB: All these questions are  
19 apart from counsel?

20 MR. MacDONALD: Yes.

21 A I do not have any recollection of ever  
22 discussing that particular transient with anybody.

23 Q At any point in time have you ever seen  
24 or read any documents that expand on the  
25 information provided by Mr. Kelly in his memo on

November 1, 1977 about that October 23rd, 1977 transient at Davis-Besse?

A Again I don't remember reading or having anything that called to my attention that the information I was reading was concerning that October 23, 1977 transient.

Q Did you read any information that related in any way to the events that occurred or that you knew occurred from what Mr. Kelly recounted to you on October 23rd?

A I certainly don't recall any.

Q Did you read an SPR or look at an SPR for the October 23rd, 1977 transient?

A I don't recall that I did.

Q Did you speak to anybody at Toledo Edison about the October 23rd, 1977 transient?

A No, I spoke to no one at Davis-Besse.

Q That being synonymous with Toledo Edison?

A Yes, it is.

Q Did you ever speak to anybody at Toledo Edison about the September 24, 1977 transient?

A No, I never spoke to anyone at Toldeo about



1

2

that transient, either.

3

4

Q Or about the significance of the events that occurred during that transient?

5

A No, I did not.

6

7

Q Did you speak to anybody at the NRC about the October 23rd, 1977 transient?

8

9

MR. KOLB: Do you mean to include any testimony he may have given?

10

11

12

MR. MacDONALD: Let's say apart from testimony he has given and then I will ask him about the testimony.

13

14

A No, I have not talked to anyone at the NRC about it.

15

16

Q Have you given testimony about it to the NRC?

17

A Yes.

18

19

Q What was the substance of that testimony and when was it given?

20

21

22

MR. KOLB: Are you asking him to recount for you what is in the record you have?

23

24

MR. MacDONALD: I don't know whether it is in this record or not.

25

MR. KOLB: I have no reason to think

1  
2 you don't have what he is talking about.

3 MR. MacDONALD: I want to clarify if  
4 that is indeed what I do have.

5 MR. KOLB: Why don't you ask him  
6 when and so on.

7 BY MR. MacDONALD:

8 Q When was the testimony given before the  
9 NRC?

10 A I don't remember when. It was a deposition  
11 to the Rogovin Commission in Lynchburg.

12 Q That is the only time you have  
13 testified before the NRC?

14 A Yes.

15 Q Is that the only time you have ever  
16 given a statement to anybody from the NRC?

17 A Yes.

18 Q Did you ever review any LER's on  
19 the October 23rd, 1977 transient?

20 A I don't recall that I did.

21 Q Did you ever ask anybody that  
22 reported to you or anyone else within B&W to  
23 look at either the SPR or the LER for that  
24 October 23rd, 1977 transient?

25 A I don't remember doing that, no.

1

2

Q In that first sentence where Mr.

3

Kelly says "...perhaps we are not giving our

4

customers enough guidance on the operation of

5

the high pressure injection system," did you

6

understand at the time that you read this memo

7

that Mr. Kelly was advocating providing additional

8

guidance from B&W to the customers, to its

9

customers, on the operation of the high pressure

10

injection system?

11

A I don't recall having a specific

12

recollection of that scenario.

13

Q Did you have a general understanding

14

from reading the entire document that that was

15

indeed what Mr. Kelley was proposing?

16

A I don't think I recall reflecting on any

17

or rather coming to any conclusion that we

18

were or were not talking about sending additional

19

information onto the operators at that time.

20

Q You didn't understand that it is

21

what Mr. Kelly was proposing by stating in the

22

second paragraph, "I wonder what guidance, if

23

any, we should be giving to our customers on

24

when they can safely shut the system down

25

following an accident? I recommend the

1  
2 following guidelines be sent."

3 A I only recall the memo was recommending  
4 certain additional items be considered, and I  
5 responded to Mr. Kelly, giving my thoughts to  
6 him on that particular subject.

7 Q Was it your understanding that Mr.  
8 Kelly was only recommending that certain  
9 additional guidance be considered as a result of  
10 reading this memo?

11 A Yes, that is the way I recall reading it.

12 Q What did you understand by the  
13 phrase "I recommend the following guidelines be  
14 sent"?

15 A I don't recall having any specific reaction  
16 to what he was intending there at this time.

17 Q But it is your testimony that you  
18 don't recall understanding from this memo that  
19 Mr. Kelly was proposing additional operator  
20 guidelines be sent by B&W to its utility  
21 customers?

22 MR. KOLB: Would you repeat the  
23 question, please?

24 (Question read.)

25 A I remember that Mr. Kelly was presenting his

1  
2 thoughts on the subject, and I think I reflected  
3 that in my own mind there were procedures in  
4 place that should address the particular items  
5 that we were talking about here, and I responded  
6 to Mr. Kelly in the matter of my thoughts on his  
7 two particular suggestions in a) and b) of the  
8 memo.

9 Q At the time you read and discussed  
10 this memo, what in here, in Mr. Kelley's memo,  
11 led you to believe that he was not proposing or  
12 recommending that his prescriptions labeled a)  
13 and b) be sent to customers?

14 MR. KOLB: There is no testimony  
15 to that effect. You are assuming that that  
16 is what he has testified to.

17 MR. MacDONALD: I think he testified  
18 that he believed at the time he read it that  
19 Mr. Kelly was just proposing certain things  
20 for consideration and that is what the  
21 words suggested to him.

22 MR. KOLB: That is different from  
23 what you just said.

24 MR. MacDONALD: Well, I think that  
25 what I am asking him at this point in time

1  
2 is what suggested to him -- well, let me  
3 withdraw that and ask you this question:

4 BY MR. MacDONALD:

5 Q Did you believe at the time you  
6 read this that Mr. Kelly was not proposing that  
7 these prescriptions a) and b) be sent to  
8 customers of B&W to provide guidance on the  
9 operation of high pressure injection?

10 A I don't believe I came to that conclusion.

11 Q What did you believe that Mr. Kelly  
12 meant when he stated that he would recommend  
13 that the following guidelines be sent; when he  
14 said "be sent," what did you understand that to  
15 mean?

16 A I thought he was saying that this is  
17 information that based on what he had done,  
18 whatever that might be, as far as analysis of  
19 the transients, would be to either an improvement  
20 to or additional information to procedures already  
21 in place, as I knew them, meaning the procedures  
22 that B&W had sent to the utilities.

23 Q And Mr. Kelly was proposing that these  
24 additions to the procedures be sent to customers  
25 in his memo of November 1, 1977?



1  
2 A I think I read this with the context  
3 that he was asking indeed from a number of  
4 people, should indeed this be sent out.

5 Q You understood that his dealing on it  
6 as stated in his memo was that he felt that the  
7 guidelines should be sent?

8 A I don't recall coming to any -- to that  
9 conclusion at this time.

10 Q In the second sentence of Mr. Kelly's  
11 memo he states: "On September 24, 1977, after  
12 depressurizing due to a stuck open electromatic  
13 relief valve, high pressure injection was  
14 automatically initiated."

15 Do you recall that this sequence that  
16 Mr. Kelley described was the beginning of the  
17 sequence of events at the Davis-Besse transient  
18 on September 24, 1977?

19 MR. KOLB: Are you asking him whether  
20 he recalls that this was Mr. Kelly's  
21 description, the beginning of events, or  
22 are you asking him whether as an  
23 objective fact he understood at the time  
24 that those were the -- that that was the  
25 beginning of the event?

1  
2 MR. MacDONALD: What he understood  
3 at the time as to whether or not that  
4 reflected the beginning of the Davis-Besse  
5 September 24, 1977 transient?

6 MR. KOLB: Also the time we are  
7 talking about --

8 MR. MacDONALD: Around the time of the  
9 November '77 memo.

10 MR. KOLB: O.K.

11 A I don't recall coming to any specific  
12 conclusion about this particular sentence.

13 Q What did that sentence mean to you  
14 when you read it?

15 A Simply that the high pressure injection  
16 system had initiated automatically on a  
17 depressurization of the RCS.

18 Q Also that depressurization was caused  
19 by a stuck-open electromatic relief valve?

20 A Yes, sir.

21 Q The electrometic relief valve is  
22 another way of saying a PORV?

23 A That is true.

24 Q Mr. Kelly goes on in the next  
25 sentence to say, "The operator stopped HPI when

1  
2 pressurizer level began to recover, without  
3 regard to primary pressure. As a result, the  
4 transient continued on with boiling in the  
5 RCS, etc."

6 When you read that at the time you  
7 received a copy of Mr. Kelly's memo to Mr.  
8 Hallman in or about early November of 1977,  
9 what was your understanding of the sequence of  
10 events as Mr. Kelly has recounted them in that  
11 first paragraph?

12 A I don't remember any conclusions that I  
13 came to at this time concerning that particular  
14 paragraph or sentence.

15 Q You stated your understanding of the  
16 previous sentence that begins, "On September 24,  
17 1977, after depressurizing..."

18 What understanding did you come to  
19 regarding the sequence of events from what Mr.  
20 Kelly stated as the operator stopped HIP when  
21 pressurizer level began to recover without regard to  
22 primary pressure and as a result the transient  
23 continued on with boiling in the RCS...et cetera?

24 A I just don't recall any specific or general  
25 recollection upon reading that other than what

2 it says.

3 Q Did you understand at the time that  
4 after depressurizing due to a stuck-open PORV  
5 that high pressure injection was automatically  
6 initiated at Davis-Besse on September 24, 1977?

7 A Yes, that's what the memo says.

8 Q Did you also understand at that  
9 point in time as Mr. Kelly recounted in the  
10 second sentence that, "the operator stopped HPI  
11 when pressurizer level began to recover,  
12 without regard to primary pressure. As a result,  
13 the transient continued on with boiling in the  
14 RCS."

15 A I still -- I don't remember any particular  
16 information that I gleaned at this time that I  
17 remember from that particular sentence, other  
18 than what is stated here.

19 Q At the time you read that sentence  
20 or had your discussions with Mr. Smith and Mr.  
21 Goslow about the sequence of events, and the  
22 phrase, "the operator stopped HPI," did you  
23 understand that to mean that the operator  
24 manually terminated the high pressure injection  
25 system?

1

2

A Yes, I believe I did.

3

4

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Q And did you understand that he did that when pressurizer level began to recover without regard to primary pressure?

6

7

8

A I don't believe that I ever remember making any conclusion from that that was indeed the case.

9

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11

Q What did you understand when you read the words, "when pressurizer level began to recover without regard to primary pressure"?

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MR. KOLB: I think I might just interject. I think the witness is saying, has said, that he doesn't have an independent recollection of what he thought beyond what the words say. He said that now two or three times.

I am not sure at this point that we are getting anywhere. I am certainly not going to obstruct you from asking him what he thought at the time, but if he doesn't remember what he thought at the time, he doesn't remember.

MR. MacDONALD: I think he stated in response to some of my questions that he

1  
2 did understand at the time what certain  
3 of these phrases meant in terms of the  
4 chronological sequence of events.

5 I am just trying to explore what some  
6 of the other event sequences were at the  
7 time of the transient and at the time he  
8 read this memo from Mr. Kelly.

9 Let me ask this  
10 question --

11 MR. KOLB: I took him to mean, and  
12 I think he said that he was reading the  
13 literal words and could read them now and  
14 could say that those are facts that he read  
15 but that is different from having an  
16 independent recollection beyond what those  
17 words mean. I think that without going  
18 back and taking each word of the transcript  
19 it is important to get clear the  
20 difference between the situation where he  
21 remembers something separate and apart from the  
22 document and the case where he can actually  
23 read the words and tell you he knows what  
24 they mean.

25 MR. MacDONALD: I think he has already



1  
2 stated that he did have an understanding  
3 at the time he read this document of what  
4 the depressurizing due to a stuck-open  
5 electromatic relief valve meant, and high  
6 pressure injection was automatically  
7 initiated. I think the record will speak  
8 for itself on that. We are just moving  
9 on to the next sentence; and I am trying  
10 to understand at the point in time that he  
11 read this memo what he believed the next  
12 sequence of events was from the words  
13 that he read. We are moving on to the  
14 next sentence. I think he has already  
15 stated on the first one, I am just  
16 attempting to get that on the next  
17 chronological event sequence.

18 So, perhaps if I br ak it down a little  
19 more.

20 BY MR. MacDONALD:

21 Q By "operator stopping HPI," at the time  
22 you read this memo, did you take that to mean  
23 that the operator manually had terminated the  
24 high pressure injection system at Davis-Besse on  
25 September 24, 1977?

1

2

A Yes, I think so.

3

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Q What did you understand by "when pressurizer level began to recover," did that mean to you at that point in time that pressurizer level was rising?

7

A Yes.

8

9

Q Is that what you understood that to mean?

10

A Yes.

11

12

13

14

Q Without regard to primary pressure, did you understand that to mean that pressure was not rising correspondingly with the pressurizer level?

15

16

A I don't remember making any association there.

17

18

19

Q When you read that sentence, did you understand that the operators had terminated HPI based on the rising pressurizer level?

20

21

A I don't remember that I drew that conclusion, either.

22

23

24

Q At the time you read this memo what did you understand the phrase, "without regard to primary pressure," to mean?

25

A I assume I read it just as it is written.

1

2

Q How is that? What does the phrase

3

mean, "without regard to primary pressure"?

4

A That we assumed that the operator stopped

5

the HPI looking at pressurizer level and did

6

not consider the primary pressure at that time.

7

Q In the next sentence Mr. Kelly goes

8

on to state, "As a result, the transient continued

9

on with boiling in the RCS, etc."

10

What did you understand at the point in

11

in time you read Mr. Kelly's memo that that meant

12

in regard to the chronological sequence of events?

13

A Just as it states, that evidently the --

14

he assumed there was boiling going on in the

15

core -- in the RCS.

16

Q After the time that the operators

17

terminated HPI?

18

A Yes, I think that's true.

19

Q What was the significance, if any,

20

to you of the fact that the transient continued

21

on with boiling in the RCS, when you read this

22

memo?

23

A I don't recall any significance other than

24

the fact that the letter says it was boiling

25

going on in the RCS.

1  
2 Q What did you understand by the  
3 phrase, "boiling in the RCS," what did that mean  
4 to you? That was a two-phase mixture of both  
5 steam and water within the reactor coolant  
6 system?

7 A Yes, that is true.

8 Q Does that mean there was saturation  
9 in the RCS?

10 A Yes, that's a fair assumption.

11 Q Did the phrase, "the transient  
12 continued on with boiling in the RCS," indicate  
13 to you that there was something wrong in the  
14 reactor at that point in time?

15 A I assumed that it did at that time. I don't  
16 recall making that judgment.

17 Q Did you have any understanding at  
18 that point in time of why pressurizer level was  
19 rising during the Davis-Besse transient?

20 MR. KOLB: Would you read the question,  
21 please?

22 (Question read.)

23 MR. KOLB: Are you confining that  
24 question to the information in this memo,  
25 or are you asking a broader question as to

1  
2 whether at about this time he gathered  
3 any information about the transient?

4 MR. MacDONALD: I think he has  
5 testified that he was gleaning the  
6 information from the memo regarding the  
7 transient. I am asking him what he  
8 understood at the time he read this memo.

9 MR. KOLB: So you are confining it  
10 to the memo itself?

11 MR. MacDONALD: For this particular  
12 point, yes.

13 MR. KOLB: O.K.

14 A Now, if I get the specific question you  
15 asked.

16 MR. MacDONALD: Will you please  
17 read the question back.

18 (Question read.)

19 A I don't recall coming to any conclusion  
20 at that time about that particular item.

21 Q Did you make any connection between  
22 the boiling in the RCS and the phrase that Mr.  
23 Kelly stated, "The pressurizer level began to  
24 recover" at the time you read this memo ?

25 A I don't believe I did.

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Q Is it a fact that there was boiling in the RCS indicate to you at that time that there was a loss-of-coolant accident occurring?

A I don't believe I made that conclusion.

MR. MacDONALD: Is this a good time to break for lunch?

MR. KOLB: Whenever you're ready.

MR. MacDONALD: All right, fine.

(Whereupon at 12:42 o'clock p.m., a luncheon recess was taken.)



## AFTERNOON SESSION

2:15 P.M.

JAMES FRANKLIN WALTERS,

resumed and testified further as follows:

EXAMINATION (CONTINUED)

BY MR. MacDONALD:

Q Are you aware, Mr. Walters, that your testimony continues under oath this afternoon?

A Yes, I am.

Q Did you come to know at some point in time after the TMI-2 accident that boiling in the RCS was an indication that there was a loss-of-coolant accident in progress?

MR. KOLB: When you say, did he come to know, do you mean know for the first time? That is the implication of "come to know."

MR. MacDONALD: That is correct.

A Yes.

Q How did you come to that knowledge?

A I think I must have come to that knowledge either during or slightly after the TMI-2 event.

Q Was it a result of reading any particular documents or discussions with individuals?

1  
2 A I don't believe I understood that it was  
3 as a result of any specific documents. I am sure  
4 at sometime during the course of the accident  
5 that I had discussssions with someone or -- and  
6 the results came to that conclusion.

7 Q You say during the time of the  
8 accident, you are talking about the TMI-2  
9 accident?

10 A Yes, sir.

11 Q Was it at that point in time that  
12 you came to the realization that boiling in the  
13 RCS was an indication of loss-of-coolant  
14 accident?

15 A Well, I really don't know what we mean by  
16 boiling in the core. In what context are we  
17 talking about, that phrase?

18 Q As we have discussed it here earlier  
19 this morning, as used in Mr. Kelly's memo, I  
20 think we were talking about it in terms of  
21 saturation in the RCS, boiling in the RCS.

22 MR. KOLB: (Indicating)

23 THE WITNESS: Yes.

24 A Again, I don't remember any specific or  
25 general conclusions on my part, at least I don't

1

2

remember from reading Mr. Kelly's memo these particular words here.

3

4

Q In Mr. Kelly's memo opposite the prescriptions there is a handwritten note. It says, "All hydro-systems."

5

6

7

Whose writing is that?

8

A I am not certain whose writing that is.

9

10

Q Is it the writing of Herb Smith, do you believe?

11

A I don't believe so.

12

13

Q Do you have any idea who wrote that note?

14

A Yes, I think I do.

15

Q Who would that be?

16

A Well, I can't say with all certainty, but I believe it's mine.

17

18

Q It looks like your handwriting?

19

A From this reproduction I really can't tell.

20

Q But you believe that you wrote the phrase, "All hydro-systems"?

21

22

A Very possible.

23

24

Q Did you mean by that that you felt Mr. Kelly's prescription could take the plant

25

solid?

1  
2 A I think I drew the conclusion that if I  
3 relied upon his prescription here that in certain  
4 instances the plant could -- the plant could  
5 be taken to a solid condition, yes.

6 Q Do you have any recollection of why  
7 you placed an exclamation point after the phrase,  
8 "All hydro-systems"?

9 MR. KOLB: You are assuming it is his  
10 writing.

11 MR. MacDONALD: I think he testified  
12 to the best of his belief it is his writing.

13 MR. KOLB: He has been very explicit  
14 as to the state of his belief; and I  
15 don't think that, given the care with  
16 which he has testified about that that  
17 you ought to just lightly assume it is  
18 his writing.

19 MR. MacDONALD: Well, I think that  
20 most individuals know their own writing,  
21 and if he believes it is --

22 MR. KOLB: He can't say that with  
23 certainty. I don't know why you are trying  
24 to change his testimony.

25 MR. MacDONALD: I am not. Most people

1  
2 when they write something will be able to  
3 look at it and understand who wrote it.  
4 I was very surprised that it took three  
5 questions to get to the fact that he indeed  
6 was the author of that little note.

7 MR. KOLB: He has not testified that  
8 he was.

9 MR. SELTZER: I thoguht he said he  
10 believed he wrote it. That sounds pretty  
11 good to me.

12 MR. KOLB: He testified that the  
13 reproduction is difficult to read, and he  
14 has difficulty giving testimony with  
15 certainty that that is his writing. Now  
16 we get a question that assumes it.

17 MR. MacDONALD: To the best of his  
18 recollection.

19 MR. KOLB: That is not appropriate.

20 MR. MacDONALD: I think to the best  
21 of his recollection he already said it is  
22 his belief to the best of his recollection  
23 that indeed it is his writing.

24 If that is his testimony, then I am  
25 perfectly willing to go ahead and ask him

what the exclamation point after that phrase meant and why it was placed there.

BY MR. MacDONALD:

Q Do you have an answer to that question, Mr. Walters?

A I certainly do not recall why -- if I did that, why I put that exclamation point there.

Q There are some handwritten notes at the bottom of GPU Exhibit 131.

The first few words read, "Too many and's." "And's" is underlined.

Do you know who wrote those words?

A Yes.

Q Who was that?

A Mr. Herb Smith.

Q Did you give Mr. Smith a copy of this memo to review at some point in time?

A Yes.

Q Did he review it in your presence?

A I don't recall.

Q Were these words written by Mr. Smith in your presence?

A No.

Q Did you discuss what Mr. Smith wrote



1  
2 in the bottom of GPU Exhibit 131 in relation to the  
3 words "Too many and's"?

4 A Yes.

5 Q What was the substance of that  
6 conversation?

7 A Mr. Smith, after I assumed reviewing the  
8 memo, came back to my desk at some point and  
9 handed me the memo with the -- with the subject  
10 words on it (indicating). At least this is a  
11 part -- that is what I remember happening.

12 Q Do you remember anything else that  
13 was discussed at that point in time? Did you  
14 ask him why he wrote those words at the bottom  
15 of the page?

16 A I think I probably did.

17 Q Do you recall what he said?

18 A I don't recall the specifics.

19 Q What was the substance of what he said?

20 A Well, it was concerning my previous comments  
21 to him or my concerns about the prescription that  
22 Mr. Kelly had supplied here and as he came back  
23 over and gave me this copy, I read it and  
24 probably, as best I remember, agreed with him  
25 that I thought that was the case, too, my sentiments

1  
2 exactly that there were too many "and's" in the  
3 prescription as outlined in this memo (indicating).

4 Q So your concern with the prescription  
5 was that it was difficult or would be difficult  
6 for operators to understand if it was sent out  
7 in its present form?

8 MR. KOLB: You are saying your  
9 concern. Are you asking whether that is  
10 his only concern, or a concern or --

11 MR. MacDONALD: His concern.

12 A Yes, that was a concern of mine as to how  
13 to pass along this information to the operators  
14 if we deemed it necessary to do so.

15 Q Under the phrase, "too many and's,"  
16 there is another sentence that reads, "Suggest:  
17 Pressurizer level is greater than pressurizer  
18 heater cutoff and R.C. pressure/temperature is  
19 within the operating curve."

20 Then a signature; it looks like  
21 "Herb."

22 Was this suggestion written by  
23 Mr. Herb Smith?

24 A I think that is a fair statement.

25 Q Did you discuss this suggestion that

1

2

Mr. Smith had made with him?

3

A I do not recall discussing that particular sentence with him at this time.

4

5

Q Did he return to you the memo that you had given to him?

6

A Yes.

7

8

Q Did it have these comments on the bottom of it?

9

A I think it would be fair to say that he did, although I do not recall specifically those particular words.

10

11

Q Did you ask him what he meant by the comments?

12

13

A I don't recall that.

14

15

Q Did you ever have any discussions at all with Mr. Smith regarding the comments he made at the bottom of the page?

16

17

MR. KOLB: Just so we are clear, are you including the "Too many and's" comment?

18

19

20

MR. MacDONALD: I am not including that.

21

22

MR. KOLB: You are not including that; is that what you said?

23

24

MR. MacDONALD: I am not including

25

1  
2 that.

3 MR. KOLB: Not including "Too many  
4 and's."

5 A I must have, but I can't testify to that  
6 as a fact I did.

7 Q You don't recall any such discussions  
8 as you sit here today?

9 A I recall talking to Mr. Herb Smith about  
10 the specific prescriptions as outlined in Mr.  
11 Kelly's memo.

12 I do not recall any substance other  
13 than that particular conversation.

14 (Recess taken.)

15 Q Mr. Walters, Mr. Kelly had two  
16 proposed guidelines, the first of which was,  
17 "Do not bypass or otherwise prevent the actuation  
18 of high/low pressure injection under any  
19 conditions except a normal, controlled plant  
20 shutdown."

21 What did you understand that to mean  
22 when you read that prescription in or about early  
23 November 1977?

24 A I think essentially what the words say. I  
25 don't recall any specific, other than the meaning

1  
2 of the words here.

3 Q Did you understand that Mr. Kelly was  
4 saying that you should not prevent the actuation  
5 or the initiation of high or low pressure  
6 injection except in the normal controlled plant  
7 shutdown?

8 MR. KOLB: Would you please repeat the  
9 question.

10 (Question read.)

11 MR. KOLB: Is there some implication  
12 to the word "initiation" as opposed to the  
13 word "actuation"?

14 MR. MacDONALD: No.

15 MR. KOLB: Do you mean them to be  
16 synonymous?

17 MR. MacDONALD: We can just use  
18 "actuation" --

19 MR. KOLB: You are withdrawing the  
20 "initiation" from the question?

21 MR. MacDONALD: It is there.

22 MR. KOLB: I don't know whether you  
23 mean --

24 MR. MacDONALD: "Actuation" means  
25 initiation of the high and low pressure

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injection. I am just asking if he agrees with what he understood Mr. Kelly to mean when he read it in November of 1977.

A I think that is what I took the words to mean.

Q Did you believe at that point in time that that part of the prescription would cause a hydroing of the RCS?

A No, I believe I accepted that.

Q The second part of the prescription labeled "b)" reads, "Once high/low pressure injection is initiated, do not stop it unless: Tave is stable or decreasing and pressurizer level is increasing and primary pressure is at least 1600 PSIG and increasing."

Is that the portion of the prescription that Mr. Smith's comment, "Too many and's," was addressed to?

A Yes.

Q And that is a portion of the prescription that you agreed with Mr. Smith contained too many "and's"?

A That is correct.

Q Of those three phrases that are connected by "and's" in that portion of the



1  
2 prescription, which ones did you feel were not  
3 needed or could be eliminated if an "and" was  
4 removed?

5 MR. KOLB: I sill object to the  
6 question. It contains an assumption as  
7 to his belief which you haven't established,  
8 and also it is two questions.

9 MR. MacDONALD: Let's do it this way:

10 Q Did you believe all three parts of this  
11 this prescription were necessary?

12 A I don't believe I remember drawing a  
13 conclusion that they were necessary or were not  
14 necessary.

15 Q Do you believe that in your agreement  
16 with Mr. Smith that there were too many "and's"  
17 in that particular portion of the prescription that  
18 one or more of the sections of the prescription  
19 were not needed or were not necessary to  
20 accomplish the guidelines that Mr. Kelly wanted  
21 to send out?

22 A I don't believe that I came to that  
23 conclusion.

24 Q At the time you read this and  
25 discussed it with Mr. Smith, which "and" did you

1  
2 consider superfluous?

3 MR. KOLB: I will object as to form.

4 You are assuming a fact.

5 Q Which "and" did you consider was  
6 too many of the three that are in there?

7 MR. KOLB: The same objection.

8 A Well, my concern goes past the words. I  
9 didn't really reflect on just the word "and."

10 Q To the extent that you and Mr. Smith  
11 agreed that there were too many "and's" in this  
12 portion of the prescription, which "and" did you  
13 feel was too many or which was not needed?

14 MR. KOLB: Same objection as before.

15 You're assuming a fact.

16 A I don't recall coming to the conclusion  
17 that any of them were superfluous.

18 Q What was wrong with the "and's,"  
19 then, as they were stated in this portion "b)"  
20 of the prescription of Mr. Kelly?

21 A Simply that I thought that it was a very  
22 cumbersome sentence and that we should try to  
23 find some better way of saying it in a more  
24 simple and logical format if we were to pass  
25 it along.

1

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Q So your objection was not to the  
content of the prescription, but to the grammar?

3

4

MR. KOLB: Are you referring just to  
the two many "and's" comment, or are you  
now referring to his view of the situation  
as a whole?

5

6

7

8

MR. MacDONALD: His view of the  
situation as a whole.

9

10

MR. KOLB: Will you please repeat  
the question.

11

12

(Question read.)

13

Q In regard to the "and's"?

14

MR. KOLB: Well, now, you have  
indicated before I had the question reread  
that we were talking about this in general  
and now you are -- am I correct you are  
saying in fact the question is only  
directed at the too many "and's" comment, and  
and you're not asking him in general?

15

16

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MR. MacDONALD: That's correct.

22

MR. KOLB: Do you understand that,  
Mr. Walters?

23

24

Q Your objection --

25

THE WITNESS: No.

2 Q -- in regard to the too many "and's"  
3 was not to the content of the prescription, but  
4 to the grammar that was used?

5 MR. KOLB: Would you tell us what  
6 you mean by "grammar" in your question?  
7 Do you mean grammar in the sense of the  
8 schoolboy's grammar book, or --

9 MR. Mac DONALD: The usage of the  
10 "and's" in the context of the English  
11 sentence.

12 A Yes, I objected to it, and in the context  
13 that the -- I did not like, if I was to have to  
14 do so, to pass this particular wording along.  
15 I thought it was very cumbersome.

16 Q Did you speak to anyone regarding your  
17 ideas on the "and's" in this particular part of  
18 the prescription?

19 A Yes, I believe I did.

20 Q Aside from Mr. Smith, with whom?

21 A No, I think he was the only one.

22 Q Well, you didn't talk to Mr. Hallman  
23 or Mr. Kelly or anyone else regarding your  
24 beliefs on the too many "and's" in the second  
25 part of Kelly's prescription?

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A I don't believe I talked to either one of those gentlemen on those subjects. At least, I do not recall doing that.

Q Prior to the time of the TMI accident did you speak to anyone regarding the problem of Mr. Kelley's prescription and the way it was worded in terms of the usage of the "and's" grammatically?

MR. KOLB: Will you read the question back, please.

(Question read.)

MR. KOLB: Are you asking whether he spoke to anyone other than Mr. Smith?

MR. MacDONALD: That's correct.

A I don't believe I did.

Q Did you attempt to reformulate that prescription yourself to make it read in a manner which you thought would be better understood and in a less cumbersome manner?

A I don't recall doing so.

Q Did you have any other questions which arose out of that item "b)" of Mr. Kelly's prescription which you discussed with any individuals at B&W prior to the TMI-2 accident?

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A Yes, I believe I did.

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Q And was that in relation to the comment that you believe you wrote in the left-hand column of GPU Exhibit 131 regarding all hydro systems?

7

MR. KOLB: I object as to form.

8

A I believe it was in that context.

9

10

11

12

Q Will you explain how Mr. Kelly's prescription in item "b)" in your mind as you read this in November of 1977 could have led to hydroing the system?

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A What I remember is that when I read Mr. Kelley's prescription, that it occurred to me that if we relied upon this prescription across the board that it was possible I thought in other transients, that meaning different than a LOCA, that we could wind up if using this prescription literally wind up in going and having a solid water system in that he says, "Do not stop the HPI injection unless."

22

23

24

25

I questioned whether or not there was sufficient thought that had been given to -- indeed, would this not -- indeed, would this cause unnecessary LOCA's if we followed this



1

2

prescription.

3

Q What other transients are you

4

referring to other than the LOCA that you were

5

thinking about at the time?

6

A I was mainly thinking along the lines of

7

overcooling transient or overcooling of the RCS.

8

Q And how could that lead, in your

9

view, to hydroing of the system with the

10

prescriptions that Mr. Kelly set forth in his

11

November 1st, 1977 memo?

12

A Well, I was unsure whether or not that we

13

were giving additional instruction to leave the

14

HPI running to prevent from going to a solid

15

system in the case of a non-LOCA situation, we

16

would also need instructions to say when to

17

terminate the HPI system to prevent going to a

18

solid, solid conditions in the RCS.

19

MR. MacDONALD: Will you read that

20

back, please, Charlie.

21

(Record read.)

22

Q Doesn't Mr. Kelly have in his

23

prescription "b)" a wording that allows for

24

stopping of HPI under the conditions that he

25

sets forth?

1  
2 A Yes, he says that under those conditions  
3 you could stop the -- or I infer from that you  
4 can stop the HPI system.

5 Q And you didn't believe at that point  
6 in time in November of 1977 that that would be  
7 sufficient in a non-LOCA overcooling transient  
8 to lead to termination of HPI before the system  
9 went solid?

10 A Yes, I think I was very unsure as to  
11 whether or not those conditions would indeed  
12 prevent that from happening under those  
13 circumstances.

14 Q Is there a difference in your mind  
15 between hydroing and a system that is solid  
16 with water?

17 A No, I use a solid water system and  
18 hydroing synonymously.

19 Q What part of Kelly's prescription do  
20 you believe would enable or perhaps permit a  
21 plant to go solid in a non-LOCA or in an  
22 overcooling transient situation?

23 MR. KOLB: Objection as to form.

24 The question assumes it is a single  
25 part of it that does that.

1  
2 A I don't believe I drew a conclusion as to  
3 any specific one would indeed result in that  
4 happening.

5 Q How would the operators take the  
6 system solid if they followed Kelly's  
7 prescription?

8 A I don't believe I reflected on how it would  
9 happen. It was -- I was reflecting on could it  
10 happen by following these instructions.

11 Q What were your thoughts on how it  
12 could happen if these instructions were followed?

13 A I don't believe I recall making this  
14 particular judgment along this line.

15 Q You didn't do any analysis or  
16 evaluations of how Mr. Kelly's prescription might  
17 enable operators to take the system solid in or  
18 about November of 1977?

19 A Well, I am sure I did no analysis, if you  
20 mean by running codes or in that nature. Other  
21 than that, I don't recall any specific evaluation  
22 at this time.

23 Q Why did you think the prescription  
24 would lead then to an operator possibly taking the  
25 system solid?

1  
2 A I think mainly because I did not think at  
3 that time to distinguish between the LOCA and  
4 an overcooling transient in sufficient time to  
5 prevent if literally following this prescription  
6 that in the case of an overcooling event, we  
7 would go solid.

8 Q Well, in the case of an overcooling  
9 event, how literally, if these prescriptions  
10 were followed, would an operator take a plant  
11 solid?

12 A I don't believe I -- I don't remember  
13 making any evaluation of that at that time.

14 Q Did you look at Smith's suggestion  
15 on the bottom of the page and evaluate or think  
16 of it in terms of the prescription that might be  
17 recommended to operators.

18 MR. KOLB: Are you referring to the  
19 one below --

20 MR. MacDONALD: The one that  
21 starts with "Suggest," yes.

22 Q In relation to guidelines to be  
23 suggested to operators at utility plants?

24 A I don't recall.

25 Q You don't recall looking at it in

terms of whether that might cause a system to hydro in an overcooling or non-LOCA situation?

A Yes, I don't recall reflecting on that in either way, that it would or it wouldn't.

Q Will you explain what would happen to the key parameters of the reactor coolant system during an overcooling transient if Kelly's HPI instructions -- if the HPI is open consistent with Kelly's instructions?

MR. KOLB: You mean, was open?

MR. MacDONALD: Yes.

THE WITNESS: Will you read that back, please??

MR. MacDONALD: I will restate it.

Q Will you explain what would be happening to the key parameters of the reactor coolant system during an overcooling transient if HPI's initiated consistent with Kelly's prescription in his November 1st, 1977 memo was open?

A In an overcooling transient within the first few minutes of the transient, both pressurized -- both RCS pressure and RCS temperature would be trending in a downward

1  
2 direction. The pressurizer level would be  
3 also trending in a downward direction for some  
4 period of time. Of course, it would depend  
5 on the circumstances as to how long this would  
6 continue to happen.

7 During the whole period of time  
8 that the HPI system was on, we are injecting  
9 unnecessary water in the case of an overcooling  
10 transient that I thought in the case of an  
11 overcooling transient under certain scenarios  
12 would wind up with the system coming into a  
13 solid condition at some later point.

14 Q If HPI was left on, what would then  
15 happen to the key parameters in this overcooling  
16 transient?

17 A My previous answer was the answer to that  
18 question, with the HPI system left on.

19 Q During the overcooling transient are  
20 you saying that when the HPI is left on, that  
21 the pressurizer level will continue to decrease  
22 as well as pressure and temperature?

23 A Some small amount of time, two to five  
24 minutes, some initial period of time.

25 Q After that what will happen to



1  
2 those key parameters?

3 A Well, depending on the scenario, how  
4 severe the overcooling transient is, at some  
5 period of time we are talking about the time as  
6 a factor, then the pressurizer level, RCS  
7 pressure and temperature would then turn around  
8 and begin to start -- start an increasing trend.

9 Q So that all three parameters that  
10 you mentioned will then at a point in time two  
11 to five minutes begin to increase if HPI is  
12 left on?

13 A Well, it depends on the scenario or how  
14 severe the overcooling transient is.

15 Q What would happen under the most  
16 severe overcooling transient you have in mind  
17 in regards to the key parameters if the HPI is  
18 left on?

19 A I think mainly what I have already said  
20 will happen, it will just be displaced in time  
21 before the three parameters begin to increase  
22 from a small or mini overcooling transient.

23 Q How quickly would the three  
24 parameters begin to recover in the severest  
25 overcooling transient?

1

2 A I have nothing really to base that on.

3 Q You didn't have anything to base that  
4 on in November of 1977, either?

5 A Nothing specific.

6 Q Mr. Walters, how long would it take  
7 to hydro the RCS under the worst case, under  
8 an overcooling transient?

9 A I don't have -- I don't believe I have a  
10 specific answer to that question.

11 Q Do you have an approximation?

12 A Not really.

13 Q Isn't it true that in a non-LOCA  
14 situation where there is no hole in the reactor  
15 coolant system, that HPI is left on the pressure  
16 and pressurizer level will come up to such a  
17 point or under Mr. Kelly's prescription HPI  
18 can be terminated before the system goes solid.

19 MR. KOLB: Is your question whether  
20 he can answer that now, today or whether  
21 he had an opinion on that at the time?

22 MR. MacDONALD: Let's start with  
23 an opinion at the time.

24 A Well, I don't recall having reflected  
25 upon that at the time.

1  
2 Q Can you reflect upon it in light of  
3 Mr. Kelly's prescription and tell us whether or  
4 not that is possible?

5 MR. KOLB: Are you now asking him  
6 for his present opinion?

7 MR. MacDONALD: At any point in  
8 time before today did he think of this  
9 situation, talk to anyone, discuss it  
10 with anyone, evaluate it to understand  
11 whether in fact you actually could hydro  
12 the system and go solid under Mr. Kelly's  
13 prescription.

14 A Yes, I think I did.

15 Q Will you tell us how that would  
16 occur?

17 A I am referring to my memo to Mr. Kelly  
18 around the first week of November.

19 Q 1977?

20 A Yes.

21 Q Did you explain to Mr. Kelly in that  
22 memo how the RCS could go solid under Mr. Kelly's  
23 prescription as Mr. Kelly set it forth in his  
24 November 1st, 1977 memo, GPU Exhibit 131?

25 MR. KOLB: Could we have the memo,

so he can look at it?

MR. MacDONALD: Mr. Walters' memo?

MR. KOLB: Yes.

MR. MacDONALD: Sure.

I would like to mark as GPU Exhibit 132 a memorandum from J. R. Walters to J. J. Kelly dated 11/10/77.

(Two-page longhand memorandum dated 11/10/77 from J. F. Walters to J. J. Kelly, subject: High Pressure Injection during Transient, was marked GPU Exhibit 132 for identification, as of this date.)

THE WITNESS: Would you read back the last question, please?

(Question read.)

A I don't believe I mentioned it in the same terminology that he did in his memo.

Q Where in your memo did you explain to Mr. Kelly that, using his prescription, you could take the system solid?

A My thoughts on that particular subject are in the third paragraph of Page 1 and the continuing paragraph on Page 2.

Q Could you read the portions of your

1  
2 memo into the record that you believe dealt with  
3 that concern?

4 A "In the particular case at Toledo there was  
5 no LOCA of magnitude and with the small leak the  
6 inventory in the system came back as expected,  
7 but due to the cooling of the RCS the RCS  
8 pressure cannot respond any quicker than the  
9 pressurizer heaters can heat the cold water now  
10 pushed back into the pressurizer, leaving the  
11 HPI system on after pressurizer level indicator  
12 is losted high, will result in the RCS pressure  
13 increasing and essentially hydroing the RCS when  
14 it becomes solid. If this is the intent of  
15 your letter and the thoughts behind it, then the  
16 operators are not taught to hydro the RCS every  
17 time the HPI pumps are initiated."

18 Q In the portion of the paragraph you  
19 just read, isn't it a fact that when the water  
20 in a non-LOCA is pushed back in the pressurizer  
21 that the RCS pressure will rise as does the level?

22 MR. KOLB: As does the level of  
23 what?

24 MR. MacDONALD: The pressurizer  
25 level.

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A I don't think I have it in my hands right now, information based on the particular scenario that that will or won't happen.

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Q Well, when there is no hole in the reactor coolant system and the pressurizer level is increasing, the level is rising within the pressurizer, will not that result in an increase in RC system pressure?

10

A Yes, it will.

11

12

13

14

Q And isn't it a fact that before the bubble is pushed back into the pressurizer and is compressed, the RC system pressure will have had to have risen above 1600 psig?

15

16

17

MR. KOLB: I will object as to form because I think you misspoke in the middle of the question.

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19

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I would ask that it be repeated.  
You might see it yourself if you hear it back.

21

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MR. MacDONALD: All right.

(Question read.)

MR. MacDONALD: I will withdraw the question.

Q Isn't it a fact that before the



1  
2 bubble in the pressurizer becomes compressed, the  
3 RCS pressure will have to have risen above 1600  
4 psi if there is no break in the RCS system?

5 A I don't believe I can be certain about  
6 that at this time.

7 Q And why can't you be certain about  
8 that?

9 A It's not clear in my mind without some  
10 reference to some specific documentation whether  
11 or not the pressure in the system will rise above  
12 1600 pounds. As you said before, the pressurizer  
13 level is lost high due to the cooling of the  
14 system fluid by the cold HPI injection flow.

15 MR. KOLB: Off the record.

16 (Discussion off the record.)

17 (Recess taken.)

18 BY MR. MacDONALD:

19 Q Mr. Walters, where is the HPI, at what  
20 point is the HPI injected into the RCS, what  
21 location?

22 A At what physical location is it injected  
23 into the RCS?: It is injected into the four  
24 cold legs of the reactor coolant system.

25 Q And the water that goes into the

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2

pressurizer is from the hot leg?

3

A From the hot leg, yes.

4

5

Q Isn't it a fact that in order to compress the bubble in the pressurizer, that RCS system pressure must rise in order to do that.

6

7

MR. KOLB: Would you read the question

8

back, please?

9

(Question read.)

10

MR. KOLB: Under what circumstances;

11

just at any time or --

12

MR. MacDONALD: In the circumstances

13

of an overcooling transient.

14

A I believe generally speaking, and I can't

15

speak for all specific cases here now, but I

16

believe generally speaking that the RC pressure

17

does rise as the pressurizer level also rises.

18

Q So that in an overcooling transient,

19

in order to compress the bubble in the pressurizer

20

the RC system pressure must rise?

21

A Yes, into the transient, the RC pressure

22

will rise in an overcooling transient.

23

Q So that is the only way you get an

24

increase in the pressurizer water level by the

25

rise in the RCS system pressure during an

1

2

overcooling transient?

3

A No, I don't believe so. Again, I can't

4

address to it in all cases.

5

Q Before the bubble is compressed in the

6

pressurizer during an overcooling transient, you

7

must have rising RCS system pressure; is that

8

correct?

9

A Well, I can't address all cases. I would

10

believe that it would be possible due to the

11

overcooling of the system by the HPI injection

12

fluid for the pressurizer level to rise and at

13

what rate the pressure is rising I can't speak,

14

just how long it is going to take to get to a

15

certain value.

16

Q Before the pressurizer fully

17

compresses, before the water in the pressurizer

18

fully compresses the steam space, isn't it a

19

fact that RC system pressure in an overcooling

20

transient will have to be rising?

21

Q I believe that generally speaking, that in

22

the case of an overcooling transient, that the

23

pressure will be rising before you compress

24

completely the steam bubble in the pressurizer.

25

Q Did you know that in November of

1

2

1977?

3

A I don't recall ever addressing that particular issue in that context in 1977.

4

5

Q You never spoke to anybody about that issue around November of 1977?

6

7

A I don't recall any specific conversation with anybody around that time about that specific subject.

8

9

10

Q Did you write any memos or do any evaluations of that particular subject around the time of the Kelly memo or your memo to Mr. Kelly in November of 1977?

11

12

13

14

A No, only my memo to Mr. Kelly addressing my general thoughts or my response to his memo.

15

16

Q Did you speak to anybody else in the Engineering Department?

17

18

MR. KOLB: On that subject?

19

MR. MacDONALD: Yes.

20

A I don't recall at this time in doing so.

21

Q Did you speak to anybody else within B&W on the subject at this point in time?

22

23

A We are talking about in respect of this specific conversation here on what pressurizer level pressure will do?

24

25

1

2

Q Yes.

3

4

A I don't recall speaking to anybody else on the context of that specific discussion.

5

6

7

8

9

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Q Are there any facts that you know today that would lead you to the conclusion that in November of 1977 you didn't know that an increase in RC system pressure would occur before the pressurizer water level went solid?

MR. KOLB: Would you read that question back, please?

(Question read.)

THE WITNESS: Very slowly.

(Question reread.)

MR. KOIB: That question is much too confusing and also you are really asking the witness to sift evidence and reach conclusions for you which is inappropriate; so I object to it.

MR. MacDONALD: I will withdraw that question and try another one.

Q Are there any facts that you know today that you didn't know in November of 1977 that would lead you to the conclusion that RC system pressure will be rising before the steam

1  
2 bubble in the pressurizer is fully compressed  
3 in an overcooling transient?

4 MR. KOLB: Let me hear that again,  
5 please.

6 (Question read.)

7 MR. KOLB: I think the question is  
8 confusing. I don't understand the  
9 reference to today versus the past.

10 The questions you had asked, I  
11 thought, previous to this, were for the  
12 most part keyed to the opinions that he  
13 had expressed in his memo and that you  
14 were questioning him about what the  
15 conditions were as to overcooling events  
16 and so forth, because he had expressed  
17 himself on that subject.

18 To compare today to the past, I  
19 think, is inappropriate because we don't  
20 want to be having the witness sit here and  
21 providing expert testimony for you. He  
22 is not your expert.

23 So I would ask you to put the  
24 questions in terms of the past, and the facts  
25 he knows and he either knows or he doesn't



1  
2 know particular things.

3 MR. MacDONALD: The question  
4 essentially is, what did you learn, what  
5 facts have you learned since November of  
6 1977 prior to today that leads you to the  
7 conclusion that you stated earlier that  
8 RC system pressure will rise before the  
9 steam space in the pressurizer will be  
10 fully compressed in an overcooling  
11 transient.

12 MR. KOLB: There is no basis  
13 whatsoever as far as I know in the testimony  
14 to suggest anything about facts he's  
15 learned since the events that have  
16 caused him to reach conclusions today.  
17 You haven't got any predicate for that at  
18 all.

19 MR. MacDONALD: I think he has  
20 testified --

21 MR. KOLB: You are just assuming  
22 there were some differences.

23 MR. MacDONALD: That's correct.  
24 I think he has testified that he did not  
25 have that conclusion back in November of

1  
2 1977, and yet he has discussed that  
3 conclusion just previously in his  
4 testimony, and I am attempting to  
5 elicit what facts he has developed since  
6 November of 1977 that led him to that  
7 conclusion.

8 MR. KOLB: I think the problem is  
9 that when you put the question as to his  
10 state of mind back at the time you did it in  
11 the context of the memo and the various  
12 other events directly that we are talking  
13 about. Now you are jumping to a  
14 conclusion and this is getting to be  
15 somewhat confusing just because of the  
16 way the questions and answers are being  
17 put and because of the difficulties of  
18 recollection. I don't think we should  
19 make it more confusing by assuming facts  
20 which you haven't established.

21 MR. MacDONALD: Let's back up a  
22 little and try and break it down into  
23 three smaller sections and do it again  
24 so we can get this clear.

25 MR. KOLB: O.K.

1  
2 BY MR. MacDONALD:

3 Q I believe you have testified, and  
4 correct me if I am wrong, that you recognized that  
5 in an overcooling transient pressure must be  
6 rising in order to compress pressurizer -- the  
7 bubble in the pressurizer; is that correct?

8 MR. KOLB: I would ask that the  
9 question be put as to whether the facts  
10 are correct, not as to whether he  
11 previously testified to that.

12 Q Is that a correct statement?

13 MR. KOLB: Do you have the question  
14 in mind?

15 THE WITNESS: Yes, I think so.

16 MR. KOLB: O.K.

17 MR. MacDONALD: Off the record.

18 (Discussion off the record.)

19 BY MR. MacDONALD:

20 Q I believe you testified that you  
21 did not know that in November of 1977.

22 MR. KOLB: You see, I think you are  
23 mischaracterizing the testimony.

24 Q Did you know that in 1977, November  
25 of 1977, without characterizing it?

1  
2 A I thought I had earlier testified that  
3 I don't believe I reflected on it in either  
4 capacity.

5 MR. KOLB: That is a different point.

6 Q Are there any facts which lead you  
7 to your understanding at this point in time  
8 regarding the rise in RC system pressure in an  
9 overcooling transient leading to compression of  
10 the bubble that you didn't know in 1977?

11 A I don't believe there is any facts today,  
12 at least that I can recollect, that I didn't --  
13 that I didn't reflect upon at the time in '77.

14 MR. MacDONALD: Will you please  
15 repeat the last answer?

16 (Record read.)

17 MR. KOLB: Off the record.

18 (Discussion off the record.)

19 MR. KOLB: Do you want to go ahead  
20 and clarify what you have just said?

21 MR. MacDONALD: Why don't we have the  
22 question repeated and let him give an  
23 answer?

24 (Record read.)

25 MR. KOLB: Please repeat the answer.

(Record read.)

BY MR. MacDONALD:

Q So, in other words -- I'm sorry, you wanted to say something.

MR. KOLB: Mr. Walters is still pondering the answer. I think if he wants to clarify it, he should have the opportunity to do so.

A As far as my response on reflecting upon it, I don't think I reflected that in 1977, that I ever reflected upon facts that I have additional information today because I don't recall in '77 or at least at this time that I addressed to this particular in any great detail.

Q In other words, the facts that you have today regarding this subject matter are the same facts that you possessed back in November of 1977?

A I don't recall that they changed.

Q I think that helps clarify it somewhat.

MR. KOLB: I am going to suggest that we stop. I think that the witness observed during the break that he was

getting tired and I think that is clear;

and I think it is a good time to break.

It is about 10 after 4:00, anyway.

MR. MacDONALD: That is fine with  
me. I don't want to push the witness.

We are at a logical breaking point.

MR. KOLB: Fine.

(Time noted: 4:10 o'clock p.m.)

James Franklin Walters

Subscribed and sworn to before me

this day of 1981.

Notary Public



CERTIFICATE

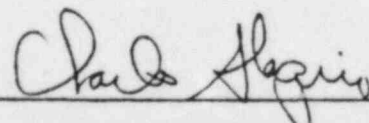
STATE OF NEW YORK     )  
                              : ss.:  
COUNTY OF NEW YORK    )

I, CHARLES SHAPIRO, C.S.R., a Notary  
Public of the State of New York, do hereby  
certify that the continued deposition of  
JAMES FRANKLIN WALTERS was taken before  
me on Tuesday, April 14, 1981, consisting  
of pages 164 through 287;

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 23<sup>RD</sup> day of APRIL, 1981.

  
\_\_\_\_\_  
Charles Shapiro

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