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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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In the matter of:	:	
CONSUMERS POWER COMPANY	:	Docket Nos.: 50-329-OM
(Midland Units 1 and 2)	:	50-330-OM
	:	50-329-OL
	:	50-330-OL

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DEPOSITION OF DARL HOOD

Bethesda, Maryland

Wednesday, 3 December 1980

Deposition of DARL HOOD resumed by agreement of counsel, pursuant to adjournment, at 4:15 p.m., in Room 422, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, before William R. Bloom, a notary public in and for the District of Columbia, when were present on behalf of the respective parties:

On behalf of the Applicant:

RONALD ZAMARIN, Esq., Isham, Lincoln and Beale,  
One First National Plaza, Chicago, Illinois

JAMES E. BRUNNER, Esq., Consumers Power Company,  
212 W. Michigan Avenue, Jackson, Michigan.

wh 1 On behalf of the Regulatory Staff:

2 JAMES D. PATON, Esq. and BRADLEY JONES, Esq.,  
3 Office of Executive Legal Director,  
4 United States Nuclear Regulatory Commission,  
5 Washington, D. C.  
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C O N T E N T S

<u>Witness</u>	<u>Direct</u>	<u>Cross</u>	<u>Redirect</u>	<u>Recross</u>
Darl S. Hood (Resumed)		318		

<u>Consumers Exhibits</u>	<u>For Identification</u>
23	330
24	405

ebl

P R O C E E D I N G S

1  
2 MR. ZAMARIN: This is the resumption of the depo-  
3 sition of Darl Hood, resumed from our previous session on  
4 October 8th, 1980, to this date by agreement of the parties.

5 Whereupon,

6 DARL S. HOOD

7 resumed the stand and, having been previously duly sworn,  
8 was examined and testified further as follows:

9 CROSS-EXAMINATION (Resumed)

10 BY MR. ZAMARIN:

11 Q You understand you are still under oath?

12 A Yes.

13 MR. JONES: Can I interrupt for a second?

14 Here are some further documents.

15 (Handing documents to Mr. Zamarin.)

16 MR. ZAMARIN: I have just been handed by Mr. Jones  
17 a group of documents.

18 BY MR. ZAMARIN:

19 Q Can you tell me what these are?

20 A Yes. These are the documents that you've asked us  
21 to produce as part of this deposition. And what I've done is  
22 to pick up from the last batch of documents that I provided.

eh2

1 to you in accordance with the agreed definition of what we  
2 were to produce.

3 Q I see.

4 So what we have now here is these documents are of  
5 the same nature that you produced on October 7th at the first  
6 taking of the deposition. These bring that production up to  
7 date?

8 A That's correct.

9 Q Okay.

10 I also have what I want to put into the record.  
11 It is a correction on page 286 and 287 of the deposition  
12 transcript of October 8th, 1980. Apparently it was in response  
13 to a question and you misspoke.

14 In advising or in responding to a question as to  
15 the consultant concerning crack analysis you had indicated  
16 your consultant was Etec when in fact that consultant is the  
17 Naval Surface Weapons Center and you would like the record to  
18 so reflect that correction.

19 Is that right?

20 A That's correct. I believe we both made the im-  
21 proper references.

22 Q Yes.

eb3

1 In addition I note or have been advised that on  
2 pages 225 and 226 of the transcript of October 8th, 1980  
3 I had asked you a question as to whether you were aware of  
4 any communication by the staff to Consumers Power Company  
5 between December 4th, 1978 or earlier than that date and the  
6 beginning of February, 1979, with regard to reservations or  
7 concerns that the staff or any of its members had with regard  
8 to the surcharge program for the diesel generator building.

9 You indicated that your answer was No, that you  
10 could not recall any such communication, and I understand that  
11 subsequent to the deposition you have made a search of your  
12 documents and have come across some documents which shed some  
13 light on that.

14 Is that correct?

15 A That is correct. After that deposition I went  
16 back and performed a thorough search. I find that the staff  
17 did indeed ask Consumers Power questions before the beginning  
18 of February, 1979, directed to the surcharge program for the  
19 diesel generator building and which, in my opinion, imply a  
20 reservation or concern which is the item to which you addressed  
21 yourself in your question.

22 Examples of this include a letter from Steve

eb4

1 Varga dated December 11th, 1978, bearing the subject "Staff  
2 positions and requests for additional information (Part 1)"  
3 and forwarded in part in Staff Request numbered 130.21,  
4 362.12, and 362.13.

5 I also find that Steve Varga's letter of January  
6 18th, 1979, by Question 40.106 enclosed thereto, implies our  
7 concern for the interfacing between the fuel oil lines and  
8 the diesel generator building and asks for criteria in this  
9 regard.

10 Question 362.17 from the January 18th, 1979 letter  
11 also implies a concern for the ultimate settlement value for  
12 the diesel generator building once the correct foundation  
13 configuration is used.

14 There were other questions raised in these early  
15 letters by the staff related to soil settlement concerns  
16 but these others do not go to the surcharge program for the  
17 diesel generator building and thus they are not relevant to  
18 the deposition question as you framed it.

19 My subsequent review of the Midland docket record  
20 also reveals that on November the 17th, 1978, the NRC staff  
21 issued an order extending the construction completion date  
22 for the Midland plant. The staff's evaluation of that

eb5

1 extension request stated the reservation that -- quote --

2 "In the event of unusual difficulties  
3 in correcting the settlement of certain structures  
4 recently discovered to be occurring at the site,  
5 this estimate may have to be revised."

6 The estimate referred to in that quote is an esti-  
7 mate of the construction completion date.

8 At the time of this statement a surcharge program  
9 was one of the alternatives then under consideration by  
10 Consumers for the remedial action for the diesel generator  
11 building. As I say, that was a consideration but the selec-  
12 tion had not been finalized at that point in time.

13 That ends that correction.

14 Q What were you referring to in providing those  
15 corrections? You've got some kind of a volume there.

16 A Well, what I'm referring to is my transcript of  
17 October the 8th, 1980, and what I have done in this particu-  
18 lar copy is to proof it and make corrections, and in the  
19 process of doing that I inserted a note that this is an item  
20 that should be corrected and I've written out what the  
21 correction is and it appears in this volume. It's essentially  
22 as I've just stated it.



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Q Okay.

Let me go back a minute.

You indicated that there was a letter from Steve Varga of December 11th, 1978?

A Yes.

Q And can you tell me again what the concern or reservation of the staff as communicated by that letter or any of its enclosures were with regard to the surcharge program?

A Yes, I can.

Let me further explain that before we ever asked questions in the context of 50.54F we had asked some questions related to the soil settlement matter and those are asked just like all the other what we call Q-1's and Q-2's associated with the normal safety review. The letters that I'm citing are requests for additional information, and they were asked as part of that safety review.

At that point in time we were aware that there was an unusual settlement occurring at the site, and we were beginning to question that area. So the questions that I cited were specific questions going to various aspects of soil settlement.

eb7

1           Now would you like a summary of what those ques-  
2 tions are? Is that the thrust of your question?

3           Q       Do you recall that as you sit here now? I mean  
4 obviously I don't have these letters either in mind or before  
5 me.

6           A       Yes, I can briefly tell you what the content of the  
7 questions are. I do not have a copy of the question. I have  
8 a document that tells me what the subject matter is of that  
9 question.

10          Q       If you could I'd appreciate it.

11          A       Question 130.21 is asked by our Structural  
12 Engineering Branch. In summary it asks for a seismic  
13 structural evaluation of settling of Category I structures.  
14 It asks how stresses for differential settlement of founda-  
15 tions and preloading activities have been or will be factored  
16 into the evaluations, and it asks for a comparison of calcu-  
17 lated stresses to the ACI Code allowable.

18                   Question 362.12 is asked by our Geotechnical  
19 Engineering Branch. It asks for a description of and a  
20 schedule for the preloading program for the diesel generator  
21 building.

22                   Question 362.13, again asked by our Geotechnical

1.140

eb8

1 Branch, asks for the program for reassessing backfill  
2 properties after preloading. It also asks for the program  
3 and schedule for confirming dynamic characteristics of the  
4 backfill for seismic analysis.

5 Q Okay. Those three, 130.21, 362.12, and 362.13,  
6 were transmitted with Steve Varga's December 11th, 1978  
7 letter. Is that right?

8 A That's correct. And those are the ones that  
9 specifically go to the diesel generator building to which your  
10 question is confined.

11 Q Okay.

12 And then on this January 18th, 1979 letter with  
13 that question 40.106, what did that go to?

14 A That's a question asked by our Power Systems  
15 Branch that asks for criteria and consideration to preclude  
16 adverse effects of settlement on the diesel generator fuel  
17 oil tanks and asks for methods of monitoring and criteria  
18 for fuel oil line functional assurance in view of settling  
19 on preloading, and it asks for criteria and considerations  
20 to preclude adverse effects of settlement on fuel oil tanks,  
21 identification of tank backfill monitoring and settlement  
22 results to date, and a program to preclude overstressing

cb9

1 lines due to tank settlement.

2 Q So that then relates to the diesel generator build-  
3 ing surcharge program insofar as it might affect the diesel  
4 fuel oil tanks?

5 A That's right. Those lines interface with the  
6 building.

7 Q Okay.

8 And the other one I think you referenced was  
9 362.17 "Concern for ultimate settlement value."

10 A Yes, 362.17 is also part of the January 18th  
11 letter. It asks for the ultimate settlement of the diesel  
12 generator building using the proper foundation configuration,  
13 the mat versus the spread footing.

14 Q Okay.

15 And is this asking for the ultimate settlement  
16 value prior to the factoring in of the soil settlement problem?

17 A No. This question is recognizing the soil settle-  
18 ment problem and is asking what ultimate settlement can be  
19 expected.

20 Q And also using the footing foundation?

21 A Yes.

22 The thrust of the question is that the earlier

eb10

1 calculations performed for purposes of design had been based  
2 on a mat foundation which was an earlier design anticipated  
3 at the PSAR stage, and the investigation by I&E revealed  
4 that the calculations were based on the mat foundation when  
5 in fact the actual structure was based upon a spread footing  
6 foundation.

7           And the thrust of the question was to ask what is  
8 the effect on settlement once this correction is made. So  
9 I think it was inquiring as to whether or not the correction  
10 had been -- what was in the FSAR at the time was based on the  
11 corrected value or was based on the improper mat foundation.

12           Q       You also indicated the November 17th, 1978 NRC  
13 staff order extending construction completion dates and I  
14 just didn't catch how that tied into this answer.

15           A       Your question was had there been any communication  
16 with the applicant with regard -- in which we expressed  
17 reservations or concerns that were directed to the surcharge  
18 program for the diesel generator building.

19                   I'm replying that in this order that we issued  
20 we did indeed express what I consider to be a concern about  
21 the effect of the surcharge program, going to its potential  
22 impact on construction completion schedules.

eb11

1 Q I see. Okay.

2 A As I recall, we had a different construction com-  
3 pletion schedule at that point in time than we have today.  
4 I believe that we had a fuel load date of November 1981, as  
5 I recall.

6 Q Okay.

7 Does that complete then the filling in of the  
8 response to the question that begins on line 25 of page 225  
9 of the October 8th transcript?

10 A Yes, that completes that correction.

11 Q In the letter dated December 2nd, 1980 that I have  
12 been provided by Mr. Paton, a letter to me, there is refer-  
13 ence to a telephone conversation a week or so ago in which  
14 Mr. Paton advised me that subsequent to your previous depo-  
15 sition session you had obtained information relative to my  
16 inquiry whether a recent change in the staff position concern-  
17 ing seismic design requirements for Midland had been con-  
18 sidered for other structures within the Michigan Basin. And  
19 at the time you were unaware of any such consideration.

20 I am now advised that you have subsequently become  
21 aware of such consideration. Is that right?

22 A That's correct.

eb12

1 Q Can you tell me what consideration has been given  
2 for other structures within the Michigan Basin with regard  
3 to the increased seismic design requirements?

4 A In the process of the concurrence -- of obtaining  
5 concurrences for the letter regarding the staff position, un-  
6 acceptable position relative to seismic design input for  
7 the Midland site, I obtained a comment or, rather, a comment  
8 was generated by Mr. Joe Scinto as to what is the effect of  
9 these alternative positions with regard to other plants in  
10 the Michigan Basin.

11 The note by Mr. Scinto subsequently lead to in-  
12 ternal staff meetings in which that matter was discussed,  
13 and a summary of that discussion is contained in a letter  
14 dated October 14th, 1980, from Mr. Robert Jackson which I  
15 have made available to you.

16 Q I have marked a document which consists of a one-  
17 page letter from Robert Jackson to James Knight dated  
18 October 14th, 1980, and an attached routing and transmittal  
19 slip as Consumers' Exhibit Number 23 as of today's date.

20

21

22

eb13

1 (Whereupon, the document  
2 referred to was marked  
3 as Consumers' Exhibit 23  
4 for identification.)

5 MR. ZAMARIN: I also have, which was paperclipped  
6 to that, a routing and transmittal slip dated October 7th,  
7 1980.

8 BY MR. ZAMARIN:

9 Q First of all, can you look at what has been marked  
10 as Exhibit 23 and tell me, is that that summary of the  
11 meetings, staff meetings in which the matter of seismic de-  
12 sign applying to existing structures within the Michigan  
13 Basin was discussed?

14 A It is. But may I make one clarification?

15 Q Yes.

16 A This is a letter from Robert Jackson to Jim  
17 Knight, and the substance of this letter is the content of a  
18 meeting that was held to discuss that matter. It is not,  
19 as I may have indicated, a summary of the meeting per se.

20 Q I see.

21 A That meeting occurred on October the 10th, 1980,  
22 and present were Mr. Joe Scinto, Mr. Richard Vollmer, myself



eb14

1 and others.

2 Q When you say others --?

3 A I know there were others present. One of the  
4 gentlemen present I do not believe I know his name. I know  
5 he was from OELD. And it seems to me others were present  
6 and I cannot recall who.

7 I would further point out that the enclosure to  
8 the Jackson letter of October 14th, 1980 is the same document  
9 to which you referred as the routing and transmittal slip,  
10 except for certain notations that have been made by  
11 Mr. Jackson to Mr. Jeff Kimball.

12 Q Can you read those on your copy? They're not  
13 legible on mine.

14 A Yes, I can read the notation, at least in part I  
15 can read it. It says:

16 "Jeff Kimball, please look into design  
17 basis for Cook, Zion, Bailly, Kewaunee, Point  
18 Beach/which ones are in Michigan Basin, et cetera."

19 There is some other notation that I cannot make  
20 out. I can make out the words "and spectra." Yes, it says  
21 "g value and spectra," and that is associated, by virtue of  
22 a line, to "design basis."

eb15

1 Q Okay.

2 In the October 14th memo of Robert Jackson there  
3 is some handwriting in the right-hand column that says --  
4 the right-hand margin, that says "I don't think this is  
5 right," referring to an underscored sentence that says  
6 "This province was accepted by the staff during the CP  
7 review."

8 Do you know whose handwriting that it?

9 A Yes, I do.

10 Q Whose is that?

11 A That comment was made by Jeff Kimball.

12 Q Do you agree with Jeff Kimball's comment?

13 A I believe Jeff is correct although I may be wrong.

14 Q So it is your belief that the Michigan Basin  
15 tectonic province was not accepted by the staff during the  
16 CP review of Midland. Is that right?

17 A No, I think what the comment is saying is that the  
18 basis for the position that ensued from the construction  
19 permit review did not result from the recognition of the  
20 Michigan Basin as a separate tectonic province. My recollec-  
21 tion of the basis for our position was that that resulted  
22 from the U. S. Coast and Geodetic Survey, and I do not believe

eb16

1 that it went to the specific tectonic province as a basis.

2 But again let me caution that I'm outside my area  
3 of expertise.

4 Q To your recollection then, why now does the ques-  
5 tion of separate tectonic provinces, if it does cause some  
6 change, cause some change with regard to the percent  
7 acceleration that ought to be applied to Midland?

8 A I cannot answer that.

9 Q Who would be able to answer that?

10 A Bob Jackson or Jeff Kimball.

11 Q Do you have any knowledge of what the basis for  
12 the change was, if it was something other than disagreement  
13 with regard to separate tectonic provinces?

14 A Let me make sure I understand the question.

15 You're saying why does the recognition of the  
16 Michigan Basin have an influence on the g value?

17 Q No. What I'm saying is, I understood you to say  
18 that the use of .12g for Midland during the CP review was not  
19 based upon a recognition or acceptance of a separate tectonic  
20 province being the Michigan Basin within the Central Stable  
21 Region but, rather, was based on some Geodetic Survey to  
22 which you referred.

eb17

1           And what I'm asking now is why is there some  
2 change being considered from the .12g today. What has happened  
3 if it is not a matter of it not being within the Michigan  
4 Basin as opposed to within the Central Stable Region? What  
5 is it that is causing this reevaluation?

6           A       It's the evolution of our understanding of that  
7 area. The methods of obtaining appropriate seismic design  
8 input today are quite different than they were at the time  
9 we -- at the time that value was established originally for  
10 the Midland site. And it's the general recognition of today's  
11 knowledge and approaching the problem differently today,  
12 based on today's knowledge, that results in that change.

13          Q       So if I were of the understanding that the reason  
14 for the change was because at one time there had been agree-  
15 ment that Midland was in the Michigan Basin and that was a  
16 separate tectonic province from the Central Stable Region  
17 and that now there was a change in that thinking with regard  
18 to the separate tectonic province, my understanding would  
19 be wrong?

20          A       I'm sorry, I don't understand the question.

21          Q       Do you want to hear that one again? It was a  
22 little convoluted.

eb18

1 (Whereupon, the Reporter read from the record  
2 as requested.)

3 THE WITNESS: The difficulty I'm having with that  
4 question is it begs a question who is right, Bob Jackson  
5 in his statement as it appears in this October 14th, 1980  
6 memorandum, or Mr. Kimball in his feeling that this is not  
7 right. I don't know the answer to that question.

8 BY MR. ZAMARIN:

9 Q I understand that and you so stated. That's not  
10 what I meant to say.

11 Really what I'm after is whether your understanding  
12 of this change is because of a change in thinking about  
13 separate tectonic provinces or a change in thinking about  
14 something else?

15 A My impression is that it's something else, and  
16 the something else is the fact that the way seismic design  
17 input is determined today is quite different than the way it  
18 was determined back at the construction permit review stage  
19 for Midland.

20 Q Do you recall any discussion of the Kewaunee and  
21 Point Beach plants that are stated in this letter to be  
22 located in a seismically quiet area of northern Wisconsin

eb19

1 and designed to .12g?

2 A Your question goes to this October 10th meeting?

3 Q Yes, or any meeting at which the question of the  
4 seismic criteria for Midland design was discussed.

5 A I do recall that those two plants were acknow-  
6 ledged during the October 10th meeting. I don't recall any  
7 other discussion relative to those two plants than as is  
8 stated here, that they are indeed in seismically quiet areas  
9 in norther Wisconsin.

10 Q Okay.

11 Do you recall discussion about the location of  
12 Midland in either a seismically quiet or seismically active  
13 or some kind of a seismically characterized area at any time  
14 with regard to consideration of the criteria for its seismic  
15 design?

16 A There have been numerous discussions, both within  
17 the staff and between the staff and Consumers and Consumers  
18 consultants regarding the Michigan Basin position versus the  
19 Central Stable Region. I recall several of those.

20 Q Okay.

21 And do you know whether anyone in the staff or any  
22 of its consultants has concluded that the northern Wisconsin

eb20

1 area where the Kewaunee and Point Beach plants are located  
2 is more seismically quiet than the area of Michigan where  
3 Midland is located?

4 A No, I do not recall any discussion of that.

5 Q Do you know if anyone has any beliefs along those  
6 lines?

7 A No, I do not have any personal knowledge of that.

8 Q Do you have any knowledge other than personal,  
9 like indirect, or anything?

10 A No, I do not have any knowledge of that.

11 Q Do you know whether this area of Wisconsin in  
12 which the Kewaunee and Point Beach plants are located is a  
13 separate tectonic province from the Central Stable Region?

14 A No, I do not.

15 Q Do you know what Mr. Jackson means when he says  
16 in this letter that all the sites listed were initiated  
17 before the tectonic province approach was used in a legalistic  
18 sense? Do you know what he means by "legalistic sense"?

19 A I believe that statement goes to the approach of  
20 10 CFR 100, Appendix A. That's where a tectonic province  
21 type of approach is advocated. I do not recall the exact  
22 date on which Appendix A first came into existence. It may

eb21

1 very well-- I believe it was after the Midland PSAR approach  
2 and before the-- Excuse me.

3 It came into being after the seismic design input  
4 for the purpose of the Midland CP review had already been  
5 accomplished.

6 I'm not sure what Mr. Jackson means by the  
7 "legalistic sense" but I believe it has bearing on certain  
8 aspects of the interpretation of Appendix A.

9 Q To your knowledge has there been any consideration  
10 or discussion at all as to the area of Michigan in which  
11 Midland is located as compared to that area of Wisconsin  
12 where the Kewaunee point is with regard to how quiet seis-  
13 mically the areas are relatively?

14 A I thought you already asked that.

15 Q Not quite. This is any discussion at all,  
16 whether it's meetings with Consumers or in preparation for  
17 meetings with Consumers. I'm not restricting it now to this  
18 October 10th meeting but just any meeting.

19 A It's quite conceivable that that was discussed  
20 during some of the meetings that we've had with the applicant  
21 but if it was, I cannot recall it.

22 Q Do you know if any action is intended to be taken



eb22

1 with regard to any of the existing plants that are discussed  
2 or referred to in Exhibit 23 insofar as reviewing their  
3 seismic design?

4 A There are actions presently underway. At least  
5 there are evaluations presently underway of some of these  
6 plants. Like Big Rock Point is within the Systematic Evalua-  
7 tion Program, the SEP. And my understanding of that program  
8 is it also goes to the seismic design consideration of those  
9 plants. My knowledge of those activities goes no further than  
10 that.

11 Q So you don't have any idea what acceleration  
12 value is being considered or would be considered as part of  
13 that seismic analysis consideration?

14 A No, I do not know.

15 Q Is, to your knowledge, Midland being treated  
16 differently in this question of seismic analysis and criteria  
17 for seismic design than near-term plants like Sequoyah?

18 A I have a vague recollection of some aspect of the  
19 Sequoyah review that may be different. I do recall that in  
20 the generation of the position there was some concern ex-  
21 pressed that certain approaches that occurred I believe on  
22 Sequoyah, or certain positions which the staff adopted on

eb23

1 Sequoyah not be similarly repeated on subsequent plants.

2 My recollection is it went to a probabilistic  
3 type of argument, or the use of a probabilistic argument in  
4 some sense as a means of justification of either the spectra  
5 or the g value or some aspect of that seismic design input.  
6 And I do not recall, as I sit here, specifically what that  
7 concern went to.

8 So my answer to you is Yes, there may be differences  
9 involved but I cannot reiterate to you what they are.

10 Q I think with regard to the Sequoyah it might have  
11 been pertaining to the spectra. Does that refresh your  
12 recollection at all as to why there was a change directed  
13 with regard to the way the staff should treat or approach  
14 the problems, for example a structure or component that  
15 couldn't meet the initially required envelope?

1.735 B2

16 A I recall that there were certain parts of that  
17 design which had very little margin in terms of the allow-  
18 ables with the approach that was proposed, and it was a much  
19 harder look in those particular areas. And quite conceivably  
20 it was the spectra. I just don't know, really.

21 Q All right.

22 And you don't know why there has been this change

eb24

1 in the way that the staff is to treat these questions?

2 A No, I don't.

3 Q Would Robert Jackson be the one who would know  
4 that?

5 A Yes, he would know.

6 Q Do you know if an SER draft has been completed  
7 for Midland?

8 A There have been drafts prepared by various branches  
9 with respect to Midland, yes.

10 Q Okay.

11 And has there been a recent SER draft prepared  
12 with regard to the soils fixes?

13 A Would you define what you mean by "recent"?

14 Q Well, since December of 1978.

15 A There was a document prepared by the Structural  
16 Engineering Branch which documented the status of the review  
17 at the point in time when there was a transition of the  
18 assigned reviewer for that branch in place.

19 Specifically, Mr. Rom Lipinski, who was the re-  
20 viewer earlier, prepared a report which summarized the status  
21 of the review at that time. I believe Mr. Lipinski con-  
22 sidered that, to his way of thinking, as an SER input. I

eb25

1 do not myself regard it as that. It was really more of a  
2 status report, explaining where we are, and there were simply  
3 too many open items for such a report to be considered an  
4 SER input.

5 Q Other than that has there been an SER prepared  
6 or a draft prepared that addresses the soil settlement issues  
7 at Midland, or the remedial fixes?

8 A The report that we received from the Corps of  
9 Engineers originally was to have been an SER input. At  
10 least I think that's what they had in mind when they first  
11 started that effort. And again the status of that review  
12 is such that the final product had to be a basis for a re-  
13 quest rather than an SER input. I don't myself consider it  
14 an SER input but I believe there may have been some refer-  
15 ence to that carrying over from the earlier thinking as an  
16 SER.

17 Q Is there anything that to your way of thinking  
18 now constitutes an SER draft?

19 A Specifically for soil settlement?

20 Q Or that addresses, perhaps among other things,  
21 the soil settlement or remedial fixes?

22 By the question I'm not suggesting that there is

eb26

1 or that I know of anything. I'm just trying to find out.

2 A I understand. I understand the question. The  
3 reason for my pause is I'm trying to be accurate.

4 No, I don't have any document, to my knowledge,  
5 that I consider an SER input.

6 Q Okay.

7 Are you aware, whether you have one or not, of  
8 any that exist right now that you consider an SER input that  
9 addresses, either by itself or among other things, the soil  
10 settlement issues and remedial fixes at Midland?

11 A I know that we are going to require, as part of  
12 our contracts with consultants, such input. I would not be  
13 surprised to learn that they may have documents that are an  
14 initial effort to prepare such a report, but I am not aware  
15 of any.

16 Q Do you know who initiated the idea for moving the  
17 requested borings from the operating cooling pond dike to the  
18 baffle dike?

19 A Yes.

20 Q Who?

21 A Richard Vollmer.

22 Q Do you know why, or do you have any knowledge of

eb27

1 why he came up with the idea of moving the borings to the  
2 baffle dike?

3 A My understanding is that we wanted to increase our  
4 understanding of the properties of that dike in the area of  
5 interest, and that's in the vicinity of the inner pond which  
6 is what's referred to as the emergency cooling pond.

7 Q Okay.

8 If that's the case, then why weren't they re-  
9 quested in the first place in the baffle dike as opposed to  
10 someplace else?

11 A The original request was by the Corps. And I sus-  
12 pect that their thinking was that they were looking for  
13 samples of the dike, period. And it seems to be logical to  
14 distribute them over the dike.

15 Again I'm guessing, but I should think that was  
16 the kind of process that caused them to ask questions, to ask  
17 for borings in the outer dike if they want something that's  
18 indicative of the entire dike.

2.100

19 As I understand what Mr. Vollmer is saying, it is:  
20 Well, let's take the borings in the area of interest and use  
21 that as a basis for extrapolation for the entire dike rather  
22 than concentrate them throughout the dike.

eb28

1 Q In your opinion should the initial request for  
2 borings have restricted the borings to the area of interest  
3 rather than spreading them around for samples around the  
4 operating dike -- the operating pond dike?

5 A The question now is directed to my personal opinion?

6 Q Yes.

7 A While I recognize Mr. Vollmer's position to be a  
8 reasonable one, I would personally have preferred to request  
9 some borings in the OBE portions of the dike as well.

10 Q What do you mean by "OBE portions of the dike"?

11 A Excuse me. That was poor terminology; in those  
12 portions of the dikes located away from the inner pond.

13 Q Okay.

14 By "OBE" you're referring to operating basis?

15 A Operating basis earthquake. But the entire dike,  
16 as I understand it, is an OBE dike, so that was poor termi-  
17 nology.

18 Q Okay.

C2 2.140

19 In your opinion, were the originally requested  
20 borings in the dike required to develop a reasonable  
21 assurance of plant safety?

22 A Does your question go to the entire request, or

eb29

1 does it go to just portions of the dike?

2 Q To the entire request for the borings in the dike.

3 In other words, in your opinion were all of those  
4 borings required in order to provide reasonable assurance  
5 of plant safety?

6 A I'm not sure that I've satisfied my own self with  
7 regard to some of the borings that were requested as to  
8 whether or not they go to plant safety. And I'm referring  
9 specifically to those borings that were requested away from  
10 the inner pond.

11 I believe that the request for borings in the near  
12 vicinity of the inner pond are necessary for reasonable  
13 assurance of safety. I'm not so sure, to my own mind, that  
14 the borings located away from the inner pond are associated  
15 with safety but, rather, are associated with environmental  
16 effects. That is, they are not associated with radiological  
17 safety, to my mind.

18 Q Did you feel that way in July of 1980?

19 A When you say "feel that way," I think what I  
20 just indicated, that I'm not clear now with regards to some  
21 of those borings what my position is.

22 Q I see.



eb30

1           A       And yes, I wasn't sure in July of 1980 what my  
2 position -- how I felt about some of those borings that were  
3 requested.

4           Q       What I'm really getting at is that on June 30th,  
5 1980, there was sent to Consumers Power Company some requested  
6 borings, some of which were in the plant dike and which have  
7 now been moved from that area to the baffle dike. And I  
8 would like to know why, if in fact there apparently was no  
9 requirement for those borings that have been moved in order  
10 to develop a reasonable assurance of plant safety, they were  
11 requested and demanded and required in the first place on  
12 June 30th, 1980.

13          A       Your question went to safety, radiological safety.  
14                 In the applica<sup>n</sup>-ion we have to be concerned about  
15 environmental effects and our requirements in that regard  
16 as well as radiological safety. And specifically the ques-  
17 tions that are asked are not pegged strictly to safety con-  
18 cerns. The document which is being used to respond to  
19 50.54F questions is not of itself an FSAR document. It's  
20 part of an application and it also goes to environmental  
21 concerns. In other words it's a mixed bag.

22                 The question that I have in my mind with regard

eb31

1 to the borings that are not in close proximity to the inner  
2 pond is an environmental concern and the specific question  
3 that has to be answered is should the consequences of dike  
4 failure be included in the Environmental Report and in the  
5 Draft Environmental Statement that the staff will issue.

6 I feel that the request for borings in the dike  
7 away from the inner pond are pertinent to that answer. The  
8 staff position will be that if there is a reasonable  
9 occurrence or a reasonable likelihood of failure of that dike,  
10 then the consequences of that failure will be assessed for  
11 its environmental effect and the Environmental Report will  
12 have to be revised to include that assessment.

13 Whether or not there is a reasonable likelihood  
14 of failure of the dike will be determined, at least in part,  
15 or was to have been determined, at least in part, from the  
16 results of the borings that were requested.

17 Q Is it your understanding then that the borings  
18 with regard to the dike which were away from the cooling pond,  
19 the emergency cooling pond, in that June 30th, 1980 letter  
20 were requested because of environmental concerns as opposed  
21 to radiologic safety concerns?

22 A No. I'm speaking for myself.

eb32

1 Q I understand.

2 A I'm not speaking for the Corps.

3 I do believe that the Corps, when they framed the  
4 request, probably had safety in mind.

5 Q Okay.

6 That really goes back to the question that I had  
7 asked when you then brought out the environmental concern,  
8 and that is: was it simply a mistake, do you think, in the  
9 June 30th, 1980 letter to locate those borings in the cooling  
10 pond dike in an area away from the emergency cooling pond  
11 if in fact the concern was radiologic safety?

12 A No, I would not classify it as a mistake. I see  
13 it as two different approaches to understand what is to be  
14 the new position. It will merely say that we will concentrate  
15 the borings more in the area of interest and use that as a  
16 basis for extrapolation because if those are good, we're  
17 willing to extrapolate that as an indication of the entire  
18 dike.

2.260

19 Q And again--

20 A What you achieve with that approach is you know  
21 you do have increased knowledge of the condition of the dike  
22 in the area of greater interest.

eb33

1 Q And in the area of concern for radiological safety,  
2 in your opinion is that a better approach?

3 A Yes, from the viewpoint of radiological safety  
4 that is an approach that gives you more confidence in the  
5 area of interest and therefore, I consider it a better ap-  
6 proach.

7 Q Do you have any opinion or knowledge as to why  
8 that better approach wasn't the one that was used initially  
9 on June 30th, 1980, when the borings were first requested?

10 A Yes.

11 Q And what is that?

12 A I believe that the Corps was influenced by the fact  
13 that one portion of the dike had exhibited some amount of  
14 settlement, and they wanted to know what the condition of the  
15 dike is in that area that exhibits settlement and they asked  
16 for a boring to be taken in that location.

17 Q Was it basically then the position of the staff  
18 on June 30th, 1980, of simply going along with the Corps  
19 since that's what they wanted, rather than substituting what  
20 they might have believed was a better approach in resolving  
21 this concern for radiologic safety?

22 A No, it was not simply a question of our going

eb34

1 along with the Corps. We had several internal meetings re-  
 2 garding that subject. One of the issues goes to General  
 3 Design Criteria 44. Specifically it goes to the interpreta-  
 4 tion of GDC-44 as it relates to normal operation, which is  
 5 a requirement of that General Design Criteria.

6 One view held by some of the staff is that the  
 7 interpretation of GDC-44 is that systems that are necessary  
 8 for resumption of operation after an operating basis earth-  
 9 quake within a reasonable period of time must be capable of  
 10 withstanding an operating basis earthquake, and that if the  
 11 dike is not capable of withstanding an operating basis earth-  
 12 quake then that dike does not satisfy the requirements of  
 13 GDC-44. Obviously if you lose that dike you are not capable  
 14 of resumption of normal operation. Clearly you would not  
 15 operate in the normal mode if your only source of cooling  
 16 water is the emergency pond.

17 I believe that was a view that existed at the time  
 18 we issued the questions.

19 In the process of the appeal that ensued, I am  
 20 of the opinion that Mr. Vollmer and Mr. Knight did not accept  
 21 that definition of GDC-44.

22 Q In what regard don't they accept that definition of

eb35

1 JDC-44?

2 A I believe that they're saying that the dike which  
3 exists away from the inner pond is not of safety significance,  
4 of radiological safety significance.

5 Q At the time of the initial request for borings  
6 on June 30th, 1980, to your knowledge was the staff aware  
7 that the baffle dike was near one of the discharge lines?

8 A Yes, I am, and was.

9 Q Okay.

10 You're aware as to whether the staff was aware  
11 and you are saying that you were aware that it was near one  
12 of the intake lines.

13 A That the baffle dike is in close proximity to the  
14 service water discharge line.

15 Q In your opinion, if Consumers Power Company had  
16 agreed to do the borings and had done the borings with regard  
17 to the operating pond dike that were requested in the June  
18 30th letter, would the borings in the baffle dike then have  
19 also been requested?

20 A My opinion is that the relocation or redistribu-  
21 tion of the borings in the dike would not have occurred and  
22 there would have been no request for borings in the baffle

eb36

1 dike.

2 Q How then would have concern for radiologic safety  
3 with regard to the baffle dike and the discharge line in  
4 its proximity have been resolved?

5 A Well, you have to understand that what we're ask-  
6 ing for is sampling and it's a question of where -- or we're  
7 talking about where do you choose to take your particular  
8 samples, and the issue is what is the optimum place to take  
9 them.

10 It doesn't say that had you taken them on the  
11 outer periphery of dikes that, you know, that you would be  
12 unjustified in extrapolating that dike to the baffle dike.  
13 I believe that was the original intent. It's just that the  
14 current thinking in what is to be the new position is that,  
15 well, let's concentrate the borings in the area of greater  
16 interest, namely the baffle dike and the area around the  
17 inner pond and use that as the basis for extrapolation.

18 Q What is your understanding of why Consumers  
19 doesn't want to take the additional borings that have been  
20 requested with regard to the dike and with regard to the  
21 other power block area?

22 A There have been two reasons stated by Consumers

eb37

1 why, in their opinion, that's not a smart thing to do. One  
2 is they have expressed concern for hydraulic fracture of  
3 the dike and I believe they received some recommendations  
4 from their consultants that that is a distinct possibility  
5 if you take a boring in a filled pond.

6 And I believe there had been some prior experienced  
7 referenced regarding hydraulic fracture in that regard, and  
8 those arguments had been presented to us by one of the Bechtel  
9 consultants.

10 The second reason that is given is that it could  
11 cause damage to the slopes. I assume this means by the  
12 placement of the heavy equipment in place to acquire the  
13 borings would cause some disruption of the slope.

14 That's my understanding of Consumers' position.

15 Q And what is your understanding of the reason why  
16 they don't want to take additional borings in the power block  
17 area?

18 A My understanding is based on a recent discussion  
19 that I had with Mr. Jim Cook of Consumers Power on November  
20 the 24th of this year.

21 (Pause.)

22 Q You were answering the question as to what your



eb38

1 understanding was of why Consumers didn't want to take addi-  
2 tional borings in the power block area and you started your  
3 answer by saying that on November 24th, 1980, there had been  
4 a meeting with Jim Cook, and I think that's about as far as  
5 you got.

6 A I had a private discussion with Jim Cook on that  
7 day. It was a very brief discussion. I was in the area for  
8 some other purpose and we just had a very quick discussion  
9 on that subject.

10 Mr. Cook was of the impression that the use that  
11 the staff would make of the borings that were requested for  
12 the diesel generator building is that they would be employed  
13 on a worst-case basis as a basis and as a sole basis for the  
14 settlement predictions.

15 I believed that to be an incorrect characterization  
16 of the staff position and I believe it reflects a misunder-  
17 standing on his part.

18 I had a subsequent discussion with Mr. Dennis  
19 Budsick the last working day before our Thanksgiving recess,  
20 the 26th, and I asked Mr. Budsick to refer Mr. Cook back to  
21 the deposition that was taken of Mr. James Simpson in which  
22 that subject was discussed and which I am told reflects a

eb39

1 different view.

2 Q Have you reviewed Joe Kane's deposition trans-  
3 cript?

4 A I have read the first two transcripts. I have not  
5 read the last.

6 Q Okay.

7 I don't remember which one it's in, but did you  
8 come across and do you recall reading Joe Kane's testimony  
9 with regard to the way that the boring information in the  
10 diesel generator building would be utilized?

11 A Yes, I do.

12 Q Okay.

13 Do you recall him testifying that the worst case  
14 analysis would be applied in predicting settlement?

15 A I recall a discussion of that subject. I also  
16 recall that my impression of Mr. Kane's statement was not  
17 intended to convey that the borings alone would be the staff's  
18 basis for a prediction of settlement but that the borings,  
19 in conjunction with the results of the surcharge program,  
20 would be the basis for settlement.

21 Q My recollection of his testimony was that a worst  
22 case analysis would be used. And if in fact that's what he

eb40

1 would do and we already have the information from the sur-  
2 charge and the settlement data from the date of removal of  
3 the surcharge over a year ago through -- I believe through  
4 September 30th in the submittal that was delivered to the  
5 NRC last week, what would be the purpose of even doing the  
6 borings if in fact you would then simply look at the worst  
7 case and look at the settlement data?

8           Couldn't one simply either hypothesize a worst  
9 case and then make a decision or, if the intention is to  
10 ignore or somehow explain or correct for the worst case, why  
11 even bother?

12           Do you understand really what I'm wondering about?

13           A     No, I'm going to ask him to read it back. It was  
14 a pretty long question.

15           Q     Yes, it was.

16                     (Whereupon, the Reporter read from the record  
17 as requested.)

18           THE WITNESS: I'm having some difficulty with that  
19 question. I think my difficulty stems from the understanding  
20 of what Mr. Kane means by "worst case."

21                     I thought what he was saying is that -- or at  
22 least what some people think Mr. Kane is saying is that the re-

eb41

1 sults of the borings, assuming they differ widely from --  
2 that they exhibit properties that were considerably out of  
3 line with what one would expect from the results that one  
4 gets from the surcharge program and the monitoring of the  
5 surcharge program and the predictions therefrom, then in such  
6 an eventuality the borings would be used as a basis for that  
7 prediction.

8 Now I'm not saying that that's what Mr. Kane is  
9 saying. I'm saying that that's what the interpretation  
10 appears to be. I don't, myself, interpret it that way.

11 Q How do you interpret it?

12 A I think Mr. Kane is saying that one would consider  
13 both the results of the surcharge program as a basis for the  
14 prediction of future settlement and one would also recognize  
15 the results of the borings to better understand what has been  
16 achieved by the surcharge program, and to provide the confi-  
17 dence that is needed that indeed secondary consolidation  
18 has been achieved.

19 I believe if one can convince himself from the  
20 borings that the plant is indeed in secondary consolidation  
21 then one can rely on the settlement predictions from the  
22 surcharge program with reasonable confidence.

eb42

1           If, however, the properties that you determine  
2 from the borings are considerably out of line with the ex-  
3 pectation, then there are several alternatives then present.  
4 One is to take additional borings and I presume that with a  
5 sufficient amount of borings coupled with borings that have  
6 already been taken, one could arrive at settlement predictions.

7           Q       If my understanding of Mr. Kane's deposition  
8 testimony is correct, and that understanding is that he would  
9 expect a wide scatter of results because of the heterogeneity  
10 of the fill underneath the diesel generator building and the  
11 effects of the surcharge, that he would then take the results  
12 of that scatter and take the worst case and would assume  
13 that that represented the predominant characteristic of the  
14 soil underneath the diesel generator building.

15                   If that understanding of mine of his testimony is  
16 correct, would you disagree with him as that being the  
17 appropriate treatment of that boring data?

18           A       I feel like the pupil that's challenging the  
19 teacher. Mr. Kane is my expert and yet, to my simple way  
20 of thinking, I would have some difficulty with acceptance  
21 of that approach as to whether or not it's indicative,  
22 recognizing that there are so few borings requested and that

eb43

1 the backfill is so variable, that one could have very much  
2 reliance on predictions that were derived from the borings.

3 I guess Mr. Kane is saying that would certainly  
4 be conservative but it would seem to me the issue is not  
5 whether or not it is conservative as much as is it reasonably  
6 indicative of what to expect.

7 Q If in fact that was Consumers Power Company's and  
8 Bechtel's consultants' understanding of the way the data  
9 would be treated, would you then agree that Consumers'  
10 reluctance to agree to do the additional borings in the  
11 diesel generator building was reasonable?

12 A No.

13 Q Why not?

14 A It seems to me that it goes to a matter of confi-  
15 dence in the staff to make the right decision. An applicant  
16 does not approach such a concern from the basis of saying  
17 that "I'm going to deprive you of the information that would  
18 permit you to do that and, Staff, if you wish to make a  
19 mistake, I'm going to prevent you from making a mistake by  
20 depriving you of that information."

21 That's the way I look at it.

22 Q So you would disagree then that in a situation

eb44

1 such as we have with the diesel generator building where  
2 there has already been field test data, where there is data  
3 of settlement now accumulated over a substantial period of  
4 time and where there is a request for sampling to be done,  
5 the only purpose of which would be to confirm that which has  
6 been observed in the field test, in the full-scale field  
7 test, and which has the attendant problems of the heterogeneity  
8 of the soil, the known scatter of results that would be  
9 obtained, the problems with obtaining representative samples  
10 and undisturbed samples, then in light of all of that you  
11 really think it is unreasonable of Consumers Power Company,  
12 knowing that the chief technical reviewer in the Geotechnical  
13 Engineering Branch of the NRC has said that he will apply  
14 the worst case analysis to the worst data obtained in that  
15 scatter, to say that they don't think it's appropriate to  
16 take those borings under those circumstances?

17 A I think there's some implications in your question  
18 that I can't agree with.

19 Q Okay. What are they?

20 A First of all I'm not-- Your question seems to be  
21 directed as to the use of the borings as the basis for pre-  
22 diction of future settlement, and I'm not agreeing that that's

eb45

1 the purpose for which the borings were requested.

2 Q If Joe Kane decided that that's what he was going  
3 to use that boring information for, would that be his deci-  
4 sion to make?

5 A During the first day of my deposition we discussed  
6 at length the decision-making process and I tried ad nauseam  
7 to convey that the staff decision process is a multiple-  
8 input process. It starts with a key individual and to the  
9 question which you're asking, Mr. Kane may very well start  
10 such a decision process, or it may emanate from the Corps  
11 of Engineers, or any combination of those two, and then it  
12 will come up through a concurrence chain which in turn is  
13 part of the decision process.

14 So my answer to your question is it could start  
15 there.

16 Q Okay.

17 We went through that somewhat I think with  
18 Mr. Kane in his deposition, too, and we got a little bit  
19 different viewpoint from the technical thing and that was:  
20 when you have consultants, when you have a technical area, that  
21 that's where the decision really rests, on the technical  
22 matters with the technical people.



eb46

1           So I think there are differing views, perhaps  
2 even within the staff, because of the lack of a well-defined  
3 flow scheme perhaps.

4           In any event--

5           A     No. I think I would characterize it as a dif-  
6 ference in view as the starting point.

7           And the final point, certainly a decision made by  
8 a staff consultant is not final and does not represent staff  
9 view until it has gone through a staff concurrence chain.

C3.

10          Q     All right.

11           So as I understand you, based upon the understand-  
12 ing that I have, that I have given you, of the facts with  
13 regard to the requested borings and my understanding of  
14 Mr. Kane's testimony and his statement as to what would in  
15 fact be done with that information, nonetheless your opinion  
16 is that it is unreasonable for Consumers to not want to take  
17 additional borings. Is that right?

18          A     I don't know if I said it was "unreasonable."

19          Q     I don't think you did. I'm asking you whether  
20 in fact it's your opinion that it was unreasonable, or that  
21 it is unreasonable of them to not want to take the additional  
22 borings in light of those considerations.

eb47

1           A        I believe I have indicated in my comments that  
2 we have some differences of view between yourself and me  
3 about what end points the borings are to be used for. It is  
4 from that viewpoint that I say I think that the borings --  
5 the request for borings is a reasonable request, and it  
6 follows that they should be provided.

7           Q        I understand. You're turning my question around  
8 on me. You're telling me-- You're saying you believe the  
9 request is reasonable for the borings, and my question  
10 was, based upon the understanding of the information that  
11 I have described to you, including our understanding of what  
12 Joe Kane testified to in his deposition, are you of the  
13 opinion that Consumers Power Company or their consultants are  
14 unreasonable in not wanting to take those borings in light of  
15 those factors and considerations?

16           A        If that is Consumers' understanding, then I don't  
17 believe I can characterize their position as being unreason-  
18 able. I believe, to my way of thinking, I would have some  
19 difficulty with a position that said that these borings and  
20 these borings alone ought to be used as a basis for settle-  
21 ment predictions for the diesel generator building.

22                    So feeling that way, I could not characterize a

eb48

1 reluctance by Consumers to provide the borings as unreason-  
2 able. I would, however, note that if that's the basis then  
3 I would hope that there might be some communication of that  
4 view so we could attack that problem on the basis of the true  
5 concern.

6 Q Well, Dr. Peck has communicated that concern  
7 or problem he has with regard to the borings to the staff,  
8 hasn't he?

3.130

9 A I am not aware that the prior discussions have  
10 centered on the use of the borings and the borings alone as  
11 a basis for the prediction of future settlement. My under-  
12 standing is that the borings -- the results of the borings and  
13 the tests associated with those samples are to be used in  
14 conjunction with the previous borings that already exist,  
15 and they are to be used to understand some of the -- or to  
16 eliminate some of the difficulties we have with the method  
17 that goes to monitoring the surcharge as a basis for predic-  
18 tion of settlement.

19 Q Let me see if I understand what you would do then.

20 If you take these borings and you have this wide  
21 scatter of results and you take the worst case borings, as  
22 I believe Joe Kane testified he would take, and you compute

eb49

1 settlement based upon that and you come up with a settlement  
2 that is far greater than what is predicted according to the  
3 field test, the preload program, then what would you do? How  
4 would you resolve that?

5 A I really think you'd have to be an expert in the  
6 field to answer that question. I can't answer it.

7 I have heard discussions of that subject. I have  
8 heard Dr. Peck expound-- Excuse me. It may not have been  
9 Dr. Peck, but at least one of the Bechtel consultants,  
10 perhaps Dr. Henry, explain the limitations of the approach  
11 associated with the sampling method and the inaccuracies that  
12 go with that method, and I have heard their views expressed  
13 that such a method may lead you to results like 15 inches  
14 of settlement or some very high number, and I have heard  
15 experiences at Kewaunee and Quanicassee cited as experience  
16 and as indications of limitations on the state of the art with  
17 that approach.

18 But still I have to believe that an experienced  
19 geotechnical engineer would have some basis for rationalizing  
20 the differences in the two approaches. Unfortunately I am  
21 not expert enough in that subject to understand how he does  
22 that.

eb50

1 Q Do you believe that there is any merit to  
2 Consumers' and their consultants' concern for hydraulic  
3 fracture, the possibility of hydraulic fracture of the dike  
4 or damage to the slopes resulting from the taking of borings  
5 in the dike?

6 A Your question is directed to my personal opinion?

7 Q Yes, as to whether there is any merit to those  
8 concerns.

9 A My opinion is influenced solely by what I've heard  
10 from others and that opinion is if borings are taken properly,  
11 that the concern for hydraulic fracture need not be a con-  
12 cern.

13 Q And whom have you heard that from?

14 A Joe Kane, among others.

15 Q You say "among others." Who are the others?

16 A Members of the Corps of Engineers have expressed  
17 similar concern.

18 Q Can you recall any names? Hari Singh for example?

19 A It was either Hari Singh or Jim Simpson, and I  
20 believe it was Jim Simpson.

21 Q Do you then believe that Bechtel's consultants  
22 are simply wrong in that regard?

eb51

1           A       I accept that as a logical conclusion to my state-  
2           ment.

3           Q       So you do in fact think that they're wrong?

4           A       Yes.

5           Q       Okay.

6                   Presented with the advice from their consultants  
7           with regard to the borings on the dike, and in light of the  
8           information that has been provided to Consumers by Bechtel's  
9           consultants with regard to the problems of sampling the  
10          borings in the diesel generator building and Mr. Kane's  
11          position that a worst case analysis based on the scatter of  
12          results would be imposed, do you have a total lack of under-  
13          standing as to why Consumers doesn't want to take additional  
14          borings?

15          A       Do I have a total lack of understanding?

16          Q       And in fairness, let me tell you why I asked that,  
17          because I was at that SALP meeting and I heard you say you  
18          don't understand why Consumers doesn't want to take addi-  
19          tional borings, and I don't understand that statement of  
20          yours.

21          Q       I believe my position is based on the different  
22          understanding I have of what use is to be made of the borings

eb52

1 than you apparently have.

2 Q In light of what we've discussed, however, do you  
3 understand or have an understanding of why Consumers doesn't  
4 want to take additional borings?

5 A Yes, I understand why you don't want to take  
6 additional borings and I've testified to that, and I made  
7 reference to my conversation with Mr. Cook which presents his  
8 view as to why Consumers is reluctant to take those addi-  
9 tional borings.

10 That conversation, incidentally, occurred after  
11 that SALP meeting to which you referred.

12 Q So if I recall your statement correctly at that  
13 SALP meeting, that you didn't understand why we didn't want  
14 to take the additional borings-- Is that precisely what you  
15 intended to say, or did you intend to say you didn't agree  
16 with our position for why we didn't want to take additional  
17 borings, or at that time were you without some of the know-  
18 ledge with regard to Consumers' position that you now have,  
19 based upon Joe Kane's position as we understand it?

20 A It's quite true that I know some things now-- In  
21 fact I have read Mr. Kane's deposition since that statement  
22 was made, and I was not aware of it at the time that I made

eb53

1 this statement, and I have a better understanding of  
2 Consumer's position now, or of their reluctance to take those  
3 borings than I did at the time.

4 That is not to say that I agree with that reluc-  
5 tance or that the borings should not be provided.

6 Q Is it your opinion that Consumers Power Company,  
7 with regard to the soils issues, has pushed ahead without  
8 first providing proper assurances to the staff?

9 A Yes, it is my position.

10 Q What have they done where that has occurred?

11 A That statement is directed in part to our request  
12 for acceptance criteria, the justification as well as the  
13 determination of acceptance criteria, and our ability to  
14 obtain that information relative to the construction aspects  
15 or the construction schedule or the intended construction  
16 schedule.

17 Q Have they actually gone ahead with construction  
18 in such an instance?

19 A No. I believe that because we issued an order on  
20 December 6th, there was a change in Consumers' plans not to go  
21 ahead with that construction.

22 Q And you were convinced that had that order not been



eb54

1 issued that they would have gone ahead with construction  
2 without providing acceptance criteria?

3 A Yes, I am of that opinion.

4 Q And what do you base that on?

5 A Where we were at the time.

6 Q What do you mean, "where we were at the time"?  
7 I don't know what you mean by that.

8 A The situation that existed as of December 6th,  
9 1979.

10 Q Okay.

11 Had anyone told you that that's what they were  
12 going to do?

13 A I was aware of the applicant's schedule, yes.

14 Q You say you were aware of their schedule. In other  
15 words someone had told you that they planned on going ahead  
16 with this work before providing the staff with information  
17 about acceptance criteria?

18 A We had had meetings with the applicant and he had  
19 outlined his intended remedial actions for the auxiliary  
20 building, for the feedwater isolation valve pits. The  
21 surcharge program for the diesel generator building had  
22 already been completed. He outlined his intentions with regard

eb55

1 to the service water intake structure. He had expressed his  
2 opinion that no fixes other than simply filling the tanks  
3 and monitoring them were necessary associated with borated  
4 water storage tanks or the diesel fuel oil storage tanks.

5 So yes, I was aware of his intended schedule. As  
6 I recall, he was about to let a contract at that point in  
7 time to a contractor for the caissons.

8 Q And was that a major factor--

9 A Excuse me. I believe the contract was with regard  
10 to the dewatering system-- No, I'm sorry, the caissons.

11 Q It was the caissons?

12 A The caissons.

13 Q And was that a major factor in your deciding that  
14 they were planning on going ahead prior to providing these  
15 proper assurances, talking about the fact that they were going  
16 to let a contract?

17 A Not the fact that they were about to let a contract,  
18 the fact that a reasonable period had been expended for the  
19 staff to obtain a proper understanding of the extent of the  
20 soil settlement problem and the corrective action and the  
21 determination and justification of acceptance criteria for  
22 those proposed remedial actions.

eb56

1 Q Are you aware that the contract that Consumers was  
2 going to let with regard to the caissons provided for the  
3 design of the caissons prior to construction of the caissons  
4 but also included a contract for someone to design them and  
5 to provide design detail and criteria?

6 A Yes.

7 Q And you still felt it was significant and felt  
8 that was rushing ahead without proper assurances to have let  
9 a contract for someone to design them?

10 A I did not preclude the applicant from any design  
11 effort. The order does not preclude him from any design  
12 effort. What the order prohibits him from doing is proceeding  
13 with the construction activities associated with the fixes.

14 Q Other than what you've just described to us do you  
15 have anything hard and fast that to your mind was evidence  
16 that Consumers was about to push ahead and start construction  
17 of the fixes prior to providing design detail, or what you  
18 style 'proper assurances' to you?

19 A My recollection is we had the schedule that he had  
20 planned to work to. I'm having some difficulty as I sit here  
21 at this particular point in time in recalling the source of  
22 that schedule, whether or not that was the result of one of

3  
3.330

eb57

1 the 50.54(f) questions which went to that, and I believe that  
2 there was such a question.

3 But I am aware that construction activities were  
4 proceeding and were close at hand.

5 Q You say "were proceeding." Construction activities  
6 with regard to the fix?

7 A Were about to proceed. Excuse me.

8 Q Do you know why it was that in November 1979,  
9 additional information was requested by the staff from Consumers  
10 and at the same time Consumers was advised that consultants  
11 had been hired or engaged by the staff to assist in their  
12 review and yet, less than three weeks after that transmittal  
13 to Consumers and before the consultants of the staff had had  
14 an opportunity to review any material and before Consumers  
15 had an opportunity to provide any of the information re-  
16 quested in that November 19th, 1979 letter, the December 6th  
17 order issued?

18 A You have already asked me that question in my  
19 prior deposition.

20 Need I answer it again?

21 Q I don't remember what you answered. Was it a  
22 short answer? It may be easier than-- What I'm wondering,

eb58

1 and I'm not sure I asked you before, is why in light of the  
2 fact that your consultants hadn't had an opportunity to re-  
3 view any of the information that had been provided yet,  
4 which was information we didn't have at the first session of  
5 your deposition, and why, since information had been requested  
6 on November 19th which had not had an opportunity to be pro-  
7 vided to you, that nonetheless, less than three weeks later,  
8 the December 6th order was issued.

9 A The basis to issue the order was not based on input  
10 from consultants. It was a decision made by the staff.

11 Q I understand that.

12 Was the decision that it wasn't necessary to have  
13 any input from the consultants that were recently engaged  
14 before making the decision that culminated in the order?

15 A My recollection is that there was not even any  
16 consultants on board at that time, that the consultants came  
17 later. It might have been in process. I believe we got con-  
18 sultants on board around the beginning of the year.

19 Q Okay.

20 My recollection of that November 1980 letter was  
21 that it said that they had engaged consultants--

22 A There was a period of time in which we were in the

eb59

1 process of engaging them, and I'm not sure when the exact  
2 starting point was.

3 Q In October of 1979, Consumers was advised that  
4 the Corps of Engineers was assisting in the review.

5 A In October of '79?

6 Q October 16th, 1979, I believe, there was NRC  
7 notification that the Corps of Engineers was helping on geo-  
8 technical reviews and asked that 50-55E and 50-54F responses  
9 be copied to them.

10 A I stand corrected.

3.410

11 Q Were you at the Region III SALP input meeting that  
12 preceded the November 24th, 1980 meeting?

13 A Yes. We refer to that as a SALP board meeting.

14 Q Do you recall the input at that meeting by Gene  
15 Gallagher?

16 A Yes, I do.

17 Q And do you recall any written outline or handout  
18 that Gene Gallagher provided at that meeting?

19 A Yes, I do.

20 Q And do you recall that his handout was about a --  
21 what? -- a two-page memorandum I believe.

22 A One or two pages. I don't know if it was a

eb60

1 memorandum. I think it was some kind of form that provided  
2 specifically for that assessment.

3 Q It had six categories numbered one through six  
4 into which input--

5 A Yes.

6 Q And do you recall if there was anything positive  
7 at all on this handout about Consumers' performance?

8 A If there were any positive comments I don't recall  
9 them.

10 Q Do you recall him discussing the contents of that  
11 written input that he had at that meeting, at that SALP  
12 board meeting?

13 A Yes.

14 Q Do you recall what he said about them?

15 A Yes, in part I recall.

16 He expressed some dissatisfaction that he had had  
17 in acquiring documents from Consumers which-- I understand  
18 it goes to the information associated with 50.54F, question  
19 number 23, the specific question that is associated with one  
20 of the assurance aspects of the review and which go to the  
21 root cause of the soil settlement problem.

22 I believe Mr. Gallagher had experienced some

eb61

1 difficulty in that regard and had made certain specific re-  
2 quests which were viewed by the applicant as unreasonable and  
3 disruptive.

4 Q Do you recall what those requests were?

5 A It was a request to produce relevant documents,  
6 as I recall. And the applicant had noted that it was a large  
7 volume of documents and that those documents were of a nature  
8 that it would be disruptive to the process if they would have  
9 to package them from the Ann Arbor facility where they were  
10 stored and locate them to some other position, either to the  
11 Region or I believe the request was to the site.

12 And the applicant had expressed the view that  
13 Mr. Gallagher's rationale for wanting the documents trans-  
14 ported in the first place seemed out of the norm. Rather,  
15 the argument that had been put forth by Mr. Gallagher was that  
16 for him to go to Ann Arbor to review the documents involved  
17 some red tape or some paperwork and he would prefer to avoid  
18 that and have the documents themselves transported.

19 Q And did he say at the SALP board meeting that that  
20 wasn't true, that he had ever said that?

21 A No, I don't know all that detail. I just related  
22 what came out at the SALP board meeting.



eb62

1 Q For instance, you don't know whether he was saying  
2 that that's in fact what he told Consumers?

3 A No, he had indicated at the SALP board meeting  
4 that he had had difficulty in acquiring information to conduct  
5 his reviews. I believe his comment was directed in part to  
6 the question 23 matter. It may have been considerably boarder  
7 than that, but that's one of the areas of comment that he had.

8 Q I'm really not clear on this. When you talked  
9 about this red tape thing, did he say that that was the  
10 reason why the applicant was refusing to transport them to the  
11 site, because of some statement that they made that they  
12 felt that he only wanted to avoid red tape and that that wasn't  
13 the case?

14 A No. Let me clarify that aspect of the conversa-  
15 tion coming from my understanding of the discussion of the  
16 issue at a time when Mr. Gallagher was not present, and that  
17 aspect of the discussion was not something that was being  
18 discussed during the SALP board meeting. I am merely relating  
19 to you my understanding of why the documents that Mr. Gallagher  
20 had produced -- had requested were not forthcoming in the  
21 manner that he had hoped.

22 Q Did Mr. Gallagher, to your recollection, state at

eb63

1 that meeting that not transporting the documents to the site  
2 would in no way affect his review of those close-out packets  
3 that he wanted brought to the site?

4 A Would you repeat that? I'm having a little trouble  
5 with the negative aspect of the question.

6 Q Rather than have it read back I'll repeat it for  
7 you, and that was:

8 Did Mr. Gallagher, to your recollection, state at  
9 that SALP board meeting that the failure to have those  
10 question 23 close-out packets brought to the site would not  
11 in any way affect or inhibit his review of that information?

12 A I'm having some trouble with my recollection, but  
13 I recall that Mr. Gallagher was of the impression that he  
14 needed that information.

15 Q And he needed it at the site?

16 A I can't recall any specific discussion about why  
17 it had to be at the site versus the other. The only aspect  
18 that I recall with regard to transporting it to the site  
19 was something about he had some difficulty with the paper-  
20 work associated. I believe he said it was something like  
21 auditing a vendor where it was not as straightforward.

22 That's about all I can recall on that aspect.

eb64

1 Q Do you recall any other comments that Gene  
2 Gallagher made at the SALP board meeting with regard to  
3 Consumers in any of the six input areas?

4 A I believe Mr. Gallagher was of the impression that  
5 the interfacing between Bechtel and Consumers left something  
6 to be desired. I know someone had that comment. I believe  
7 it was attributed to Mr. Gallagher.

8 Q Do you recall-- I'm sorry, were you finished?

9 A I believe Mr. Gallagher had certain impressions  
10 about certain individuals in the quality assurance organiza-  
11 tions and had some view about their performance in relation  
12 to the soil settlement problem or in relation to the over-all  
13 effectiveness of the quality assurance program.

14 Q Do you recall who those individuals were?

15 A Give me a moment, please.

16 (Witness conferring with Counsel.)

17 My recollection is that Mr. Gallagher was not  
18 particularly impressed by Mr. Byrd or by Mr. Corley.

19 Q Okay.

20 And do you recall any other input that Mr. Gallagher  
21 had at that SALP board meeting?

22 A I know he definitely had other points, other

eb65

1 negative points. But as I sit here today I'm having some  
2 difficulty recalling off the top of my head just what they  
3 were.

4 Q Do you recall whether he had any positive points  
5 to say about Consumers?

6 A If he had any positive points to make, I don't  
7 recall what they were.

8 Q You don't recall him making any positive comments  
9 about Consumers, do you?

10 A No, I can't recall any positive statements that may  
11 have been made.

12 Q Do you recall him making any statement with regard  
13 to whether the information that he had provided in his SALP  
14 input in those little six areas was within the right time  
15 frame for the SALP period or not?

16 A I'm sorry, Mr. Zamarin, my mind was on your pre-  
17 vious question when you asked the last one, and if you will  
18 permit me, I do think I recall one statement that he made that  
19 was positive.

20 Q And what was that?

21 A He expressed the opinion that one individual in  
22 Consumers had been very helpful to him in his investigations

eb66

1 and was quite cooperative.

2 Q Don Horn he was referred to?

3 A Don Horn.

4 Q You don't recall any other positive statements  
5 that he made?

6 A No, not at this time.

7 Q Okay.

8 Do you recall whether he made any statement with  
9 regard to whether the information that he had provided in  
10 those six areas of SALP input were within the appropriate or  
11 the proper SALP appraisal time period?

12 A At the SALP board meeting there was a recognition  
13 that the comments on Midland went beyond the narrow time frame  
14 of the SALP time period, and a good many of the comments that  
15 were made were outside of that limited time frame. I believe  
16 some were in and some were out.

17 I know I had similar difficulty with the time frame,  
18 recognizing the particular review status of Midland during  
19 this period and relative to an over-all review. And so  
20 comments were made at the meeting that were both within and  
21 without the time frame for the SALP period.

22 Q Do you recall any general statement or information

eb67

1 by Gene Gallagher with regard to whether any or all of his  
2 comments were either within or without the SALP time period?

3 A I recall that he acknowledged that his concerns  
4 went beyond the time frame.

5 Q Do you mean to say that he said that all of his  
6 concerns were with regard to matters that were outside of  
7 the SALP time frame?

8 A No, he didn't say it that way. I mean it was--  
9 The comments that he had made are not limited to just that  
10 particular time frame but they recognized earlier occasions  
11 as well, and carried over into the SALP time frame, June or  
12 July, one-year duration.

13 Q Do you recall his input into the category 'ade-  
14 quacy of management controls' and where his input was that  
15 management had not been properly informed or involved in  
16 significant construction items?

17 A Yes, I recall that.

18 Q Do you recall any particularization that he gave  
19 for that?

20 A No. I'm having some difficulty recalling  
21 specifically any specific example or particularization that  
22 may have been made; although I concede that one may very well

b4

eb68

1 have been made, I just can't recall what it is.

2 Q Did you recall him saying that his entire input  
3 in that area related to something that occurred in 1977?

4 A You're going back to the management adequacy  
5 comment?

6 Q That's right, the adequacy of mangement controls,  
7 and that Consumers had not provided adequate management  
8 control for the construction because management had not been  
9 properly informed or involved in significant construction  
10 items.

11 Do you recall him telling--

12 A The particularization that was limited to something  
13 in 1977?

14 Q Yes.

15 A No, I'm still having difficulty recalling.

16 Q Okay.

17 Would it surprise you if his sole input and the  
18 sole basis for his input in that area of adequacy of manage-  
19 ment controls related solely to something that occurred in  
20 1977, one incident?

21 A Well, if you're using the word "surprise" to mean  
22 would I think that would be a fair assessment, I guess I

eb69

1 would hope that an assessment would be based on a broader  
2 basis that a given incident.

3 Q And one that was three years earlier?

4 A Yes.

5 Q With regard to the second category, and that's  
6 'communication within functional group providing technical  
7 support,' and where Mr. Gallagher's input was that communica-  
8 tion and technical support between Consumers and the design  
9 organization has been poor in that the design organization  
10 has not provided clear technical direction; do you recall if  
11 he gave any specifics on that one?

12 A My impression is that comment draws heavily from  
13 the investigation that was done associated with the soils  
14 settlement matter and which, as I recall, culminated around  
15 March of '79. And it goes to difficulties of communication  
16 in that respect.

17 Q Do you recall whether he told the attendees at  
18 that SALP board meeting that the sole basis for his input  
19 under that second category was the specification C210 matters  
20 which occurred quite some time prior to the SALP appraisal  
21 period but which might have been referenced in his March 22,  
22 1979 investigative report 78-20?



eh70

1 A I don't recall if he specifically made that point  
2 at the SALP board meeting. No, I don't recall that.

3 Q In your opinion would the input-- Strike that.

4 With regard to his input under the item, "Qualifi-  
5 cation and training of licensee personnel," in which he in-  
6 putted that "Findings were made where the licensee did not  
7 adequately control the qualifications of the contractors'  
8 quality control personnel for the post-engineering work  
9 activity. In general, Consumers' performance in the area  
10 has not been adequate. The civil QA supervisor for Consumers  
11 has been in need of more staff for some time and that manage-  
12 ment has not supplied this personnel as of this appraisal."

13 Do you recall him saying that in fact a person was  
14 being sought for the one vacancy of which he was aware and  
15 that at the time of the SALP submittal by him that that person  
16 had been hired, and that the sole basis for the rest of his  
17 statement under that category was that there had been a  
18 difference in judgment with regard to I believe it was an  
19 ANSI 45.2 qualification of personnel -- 45.2.6?

20 Do you recall him advising people that his entire  
21 input was based solely on those facts?

22 A No, I don't recall him saying specifically that

eb71

1 his entire input was based solely on those facts on that  
2 event. I do recall that that item was discussed in the con-  
3 text of the tendon-pulling matter. But your statements are  
4 much more specific than my recollection goes.

5 Q With regard to input by Mr. Gallagher in "Over-all  
6 effectiveness in attitudes," where he states that "Consumers,  
7 in conjunction with their contractor, has a poor attitude on  
8 compliance," do you recall him advising the attendees at the  
9 SALP board meeting that that was based solely upon an inci-  
10 dent where he believed that lean concrete used for structural  
11 fill should be Q material, and when he advised Don Horn at  
12 the site of that, Don Horn called the A-E, the design engineer,  
13 who said he did not believe that it needed to be Q material,  
14 and that the matter nonetheless was urged by Mr. Gallagher,  
15 that it should be listed as Q material and within four days,  
16 in fact, the matter was resolved and the lean concrete was  
17 listed as Q material?

18 Do you recall him advising people at that meeting  
19 that that was his sole basis for his stated conclusion that  
20 "Consumers, in conjunction with their contractor, has a poor  
21 attitude in compliance"?

22 A No, I don't recall such a statement being made.

eb72

1           Q       With regard to his input that "In addition,  
2 Consumers has been reluctant to give the NRC requested docu-  
3 ments without first clearing it with upper management," do  
4 you recall him saying that the sole basis for that was that  
5 he requested Question 23 close-out packets to be moved from  
6 Ann Arbor to the site even though those were engineering  
7 close-out packets, and that the reason that he gave for that  
8 was so that he didn't have to go through the paperwork to go  
9 into Bechtel, and that nonetheless it would in no way impair  
10 his review or make it more difficult for him to conduct his  
11 review of those close-out packets?

12                   Do you recall him stating that?

13           A       Yes, I do.

14           Q       Do you recall any discussion by anyone else at  
15 that meeting when Gene Gallagher stated that what I've just  
16 described in his opinion indicated a reluctance to give  
17 requested documents without first clearing it with upper  
18 Consumers' management?

19           A       Do I recall comments by others on that particular  
20 point?

21           Q       Right. What I understand you to say is that in  
22 providing detail for his statement that "Consumers has been

eb73

1 reluctant to give the NRC requested documents without first  
2 clearing it with upper Consumers' management," that the only  
3 reason for that statement was the close-out packets which  
4 he could, by his own belief, just as readily review and  
5 effectively review at Ann Arbor.

6 Do you recall anybody asking him why, in his  
7 judgment, that amounted to reluctance to give the NRC re-  
8 quested documents?

9 A I recall some discussion of that matter which I  
10 believe to be conjecture as to why there might be some reluc-  
11 tance to release documents.

12 I'm having some difficulty remembering the source  
13 of the comment, and if indeed it was at the SALP board meeting  
14 I believe it was, but I'm not absolutely certain.

15 Q When you say a reluctance to-- I'm sorry, I  
16 thought you were finished.

17 A The discussion was by way of conjecture that there  
18 may be some lawsuits brewing between the applicant and its  
19 contractors or its consultants, or that there may be some  
20 concerns about who's going to pay for what, and that those  
21 kinds of matters might conceivably be affecting the openness  
22 of the applicant or his consultants to provide information

eb74

1 without first checking it out closely.

2 That was just loose conjecture I suppose. I don't  
3 recall any basis for such a statement.

4 Q Do you recall whether Mr. Gallagher made it clear  
5 that his entire input with regard to reluctance to give re-  
6 quested documents was limited to whether or not certain docu-  
7 ments would be transported, engineering documents would be  
8 transported to the site, and that there was no reluctance to  
9 give him those documents or allow him to review them at Ann  
10 Arbor where they were stored?

11 A Yes, I believe that point was made and that position  
12 had been conveyed to Mr. Gallagher. I say "I believe." Again  
13 I believe I had already made that point to him about the  
14 applicant's position before that meeting.

15 I think the position had been conveyed to us in  
16 one of the depositions that had been taken prior to that  
17 point and that information had been conveyed to Mr. Gallagher  
18 and that part of that position went to the explanation as to  
19 why it wasn't practical to transport the documents from Ann  
20 Arbor to the site or some point convenient to him.

21 And the position had been conveyed to him that the  
22 applicant had some difficulty understanding his stated

eb75

1 reason about the paperwork associated with him going there,  
2 and the position that the paperwork he was asking for con-  
3 stituted several file drawers full of information.

4 Q In your opinion does that described scenario  
5 demonstrate reluctance on the part of Consumers to provide  
6 documents to the NRC?

7 A It indicates reluctance, but the question is  
8 whether or not that reluctance is justified. If you're ask-  
9 ing me if it symbolizes unjustified reluctance I would have  
10 to say No.

11 Q Okay.

12 I believe another statement that I heard you make  
13 at that meeting on November 24th was that a big contributor  
14 in not making progress on the FSAR review with respect to  
15 Midland was the many questions that the NRC has had to ask  
16 and something to the effect also, the hack job that Midland  
17 Licensing was doing.

18 Can you tell me what you mean by that? And first  
19 of all, did I accurately recall what--

20 A No, you did not accurately characterize the  
21 statement. Let me attempt to explain the comment that I  
22 made.

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eb76

1 My comment at the SALP meeting was directed to  
2 interfacing between NRR and Consumers Power and that inter-  
3 facing is principally directed to the areas of the informa-  
4 tion that the applicant has submitted to us as amendments  
5 to the application documents which is the FSAR and per-  
6 formance in meetings and that kind of thing.

7 I made the observation that the response to the  
8 staff's request for additional information had left much to  
9 be desired in terms of submittal of responses of substance,  
10 and I made the observation that that fact, in my opinion,  
11 was responsible for a very large number of repeat questions  
12 or what I loosely call "requestioning" or "requests."

13 I believe I may have indicated that we may even  
14 be setting some kind of record as regard to numbers of  
15 questions asked, but if one views that as a large number of  
16 questions you also have to look at the extent of those ques-  
17 tions that are repeats.

18 My comments are not directed to the soil settle-  
19 ment matter but, rather, the over-all review and those  
20 comments are directed in particular to earlier questions asked  
21 by the staff, what we call Q-1's minireview and Q-1 stages.

22 I went on to acknowledge that there had been a

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1 change, an organizational change in the Licensing personnel  
2 of Consumers Power. I acknowledged I had seen some improve-  
3 ment in the substance of responses, in particular responses  
4 that have been made since the occurrence of the accident at  
5 Three Mile Island.

6           However, I had to caution my optimism by acknow-  
7 ledging that the areas where I have seen that improvement  
8 are subject matters which, by their nature, command a high  
9 degree of responsiveness. The two areas in particular that  
10 I'm drawing from are responses to 50.54(f) requests by the  
11 staff relative to the sensitivity of the B&W system design.  
12 That is, there was a review as to whether or not the B&W  
13 primary system might be too responsive to perturbations on  
14 the secondary side.

15           The other area that I acknowledged as an improve-  
16 ment in the responses as far as their substance was with  
17 regard to the responses to the Lessons Learned from Three  
18 Mile Island.

19           So the point I was making is while I might like  
20 to believe that the improvement in the substance of the  
21 responses reflect the change in organization and therefore  
22 I can expect more responsive answers in the future, I cannot

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1 at this point in time say that that improvement is a result  
2 of the reorganization as much as it might be other causes.

3 Q Are there other areas in which Consumers has  
4 exhibited a positive attitude with regard to upgrading the  
5 plant, for example for Licensing issues that Consumers con-  
6 sidered to be Licensing problems?

7 I have some examples if you want me to list them,  
8 like the pressurizer heater upgrade or shutdown margin.

9 A Yes. In the-- When I made a reference to the  
10 post-TMI responses if you will, the responses that the  
11 applicant made in regard to the Lessons Learned from Three  
12 Mile Island, that would include certain carryover areas  
13 from the B&W systems sensitivity issue which I also cited  
14 which, as it turns out, are also factors in the Three Mile  
15 Island matter.

16 That is, the review had already arrived at the  
17 point where we were dissatisfied with certain areas of the  
18 design and we had certain open issues, and some of those  
19 matters also became matters for the B&W systems sensitivity  
20 issue. The one you cite is a case in point, upgrading the  
21 heaters for the pressurizers.

22 That matter was a matter for the B&W systems

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1 sensitivity issue and it carried over into the post-TMI  
2 matter.

3 Q What about the cold shutdown and the shutdown  
4 margin?

5 A We were having our difficulties with that area  
6 of review, and there were some improvements suggested by the  
7 applicant in its design in that regard but the improvements  
8 still fell short of the staff position.

9 I believe there was a position by the Reactor  
10 Systems Branch called RSB-5-2, either 1 or 2, that presents  
11 our requirements with regard to that system. And the  
12 applicant has proposed some changes to bring it more in line  
13 with that requirement.

14 But at that point in time, and I'm referring now  
15 to the -- prior to the Three Mile Island accident, that  
16 system was not in full compliance with our position and so  
17 I would be reluctant to say that that presents the positive  
18 attitude that we would like to have seen.

19 Q Are you certain that the pressurizer heater up-  
20 grade was post-TMI and that that wasn't done prior to Three  
21 Mile Island?

22 A The upgrade was done....Give me just a moment.

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(Pause.)

My recollection is that the upgrade of the pressurizer heaters resulted from staff requests that were made long before the Three Mile Island accident, and the staff's review had required that they be upgraded to, at least in part, to safety grade.

I believe that a decision to uprate heater banks 5 and 6 had been made before the accident at Three Mile Island, and after Three Mile Island when the B&W systems sensitivity issue arose, there was further explanation of that system change and that that matter is also one of the required changes as a result of the changes required since the accident.

Now I don't know if I said anything contrary to that previously.

Q Okay.

I think you also or I heard you also say something to the effect that you have attempted to not let the staff's asking for additional borings and Consumers' refusal to provide those borings to affect your thinking. And my question is affect your thinking about what?

And then I will also ask you whether you have been

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1 successful in having that not affect your thinking.

2 A Yes, the comment that I made was in recognition  
3 of an applicant's right to resolve a difference of opinion  
4 that he has with the staff position with my management.  
5 And in my attempt to assess the applicant's performance  
6 I have attempted to recognize that right and not let the  
7 fact that there is this disagreement influence my opinion of  
8 his performance.

9 And yes, I do believe I've been successful in  
10 doing that.

11 Q You referred earlier to Q-1 questions. Is that  
12 the same as like Round 1 questions?

13 A Yes.

14 Q And did you ever compare Midland Round 1 questions  
15 by number to any other plants, for example San Onofre or  
16 Watts Bar?

17 A I did not myself do that. I am aware that there  
18 are Consumers personnel who have done that, not necessarily  
19 those particular plants but to some other plants that were  
20 supposedly high in number.

21 Q And is it your conclusion that Midland has a  
22 disproportionately higher number of Round 1 questions than

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1 those comparable plants?

2 A I would not be at all surprised to learn that  
3 that's the case.

4 Q Would you be surprised to learn that that isn't  
5 the case?

6 A For the plants you cited there were a rather  
7 large number of questions I believe. I guess the point I'm  
8 trying to convey is I know we have asked a very large number  
9 of questions. I get into some difficulty when I attempt to  
10 try to compare that particular number to other plants.

11 Q Well, then what did you base the statement on?

12 A I'm basing it on my experience and my observations  
13 about the plants which-- I'm not singling out certain  
14 plants for which there have been a very high number of ques-  
15 tions asked. I have seen information about the numbers of  
16 questions asked on plants and I know that typically there's  
17 only one set of Q-1's asked where I believe in the case of  
18 Consumers we've had about at least three parts of Q-1's  
19 and then I believe there have also been some supplemental  
20 Q-1's issued after those three sets, those three parts were  
21 issued.

22 So I know that that volume of questioning is not

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1 at all typical.

2 Q Are the numbers of questions affected by the Reg.  
3 Guide format in any way?

4 A Yes.

5 Q And wasn't Consumers Midland one of the first or  
6 second applicants to meet that Reg. Guide 1.72?

7 A They're one of the first plants to be reviewed  
8 entirely from the onset to the Standard Review Plan; that's  
9 correct.

10 Q And to your mind does that in any way account  
11 perhaps for the number of questions that were asked?

12 A Yes, I feel it's a factor. But even there I  
13 think you would have to try to compare the number of ques-  
14 tions asked by Midland compared to more recent plants that  
15 are being reviewed to the Standard Review Plan and again I  
16 think you'll find that we're on the high side.

17 Q Okay.

18 Wouldn't you have expected some shakedown after  
19 the early plants?

20 A I don't know if I could say "shakedown" from the  
21 earlier plants or not. I suppose there would be some  
22 shakedown but I think there are a lot of people who would

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1 argue that if anything, the numbers of questions grow with  
2 time, they don't diminish.

3 Q Kind of like taxes.

4 A Somewhat.

5 Q Do you recall whether about three months ago  
6 Joe Kane gave you a list of information that he wanted from  
7 Consumers, and you deciding to wait and get that information  
8 through depositions?

9 A I do recall that Mr. Kane gave me a request for  
10 some drawing updates. He asked for an update of some  
11 drawings. And I discussed that matter with Counsel. And  
12 my recollection was that he was going to get that informa-  
13 tion in conjunction with a review of documents I believe  
14 that was earlier scheduled at Ann Arbor.

15 And it's my understanding it was subsequently  
16 delayed, and which ultimately occurred on November the 24th  
17 or 25th. But my understanding is that nothing has been done  
18 with Mr. Kane's request.

19 Q Do you know whether this request was for an update  
20 on the settlement marker data with respect to the diesel  
21 generator building?

22 A I believe that was the substance of it.

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1 Q And do you recall whether it was as long ago as  
2 three months that he requested this data?

3 A It's quite possible.

4 Q And do you know why he never made the request  
5 to Consumers Power Company for that data?

6 A He presented the request to me.

7 Q Why wasn't Consumers asked for the data?

8 A Because it's my position to convey the request  
9 to you, not Mr. Kane's.

10 Q Okay. Well, that's really what I'm asking you  
11 then, is why we weren't asked for the data.

12 A I just answered that question. I told you I had  
13 conveyed the request to Mr. Paton and Mr. Paton was going to  
14 work out with Mr. Zamarin, I believe, that matter.

4.540 15 Q Is it your understanding that this was informa-  
16 tion Mr. Kane was requesting for purposes of hearing prepara-  
17 tion as opposed to on-going review of the matters at  
18 Midland?

19 A I don't know if I made any particular distinction  
20 one way or the other in that regard. I can see where it  
21 probably relates to both.

4 0 22 Q I'm still not clear why that would have gone

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1 through the attorneys rather than it just being done as a  
2 normal request along with the review process.

3 A I think it had to do with where we were in time  
4 at the time we got the request, and the fact that the sug-  
5 gestion had been made by Mr. Paton that he would handle it.

6 Q Okay.

7 During that SALP board meeting do you recall the  
8 discussion of key positions in Consumers QA, having people  
9 in them that lacked knowledge of basic QA concepts?

10 A No, I don't recall a discussion that went  
11 specifically to lack of knowledge of QA concepts.

12 Q Do you recall a discussion of people in any  
13 positions having a lack of knowledge of basic QA concepts?

14 A Yes, I do.

15 Q Can you tell me what you recall about that?

16 A I believe Mr. Gallagher expressed the opinion  
17 that Mr. Corley was not particularly versed in the subject  
18 to the extent that he should be for his particular positio .  
19 He expressed the opinion that it was because of that lack of  
20 knowledge that he had been promoted. I believe it was a  
21 statement about the Peter Principle in that respect.

22 I don't know that that particular statement was

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1 attributed to Mr. Gallagher; it was perhaps by someone else.

2 Q Did anyone give any specifics about this lack of  
3 knowledge that he had or is claimed to have?

4 A No, I don't recall any specifics with regard to  
5 that statement.

6 Q Do you recall anybody asking him to provide some,  
7 to put up some support for that rather strong statement?

8 A I do know that Mr. Fiorelli on several occasions  
9 expressed a need for specifics and that the observations be  
10 supported by specifics. I don't know that Mr. Fiorelli's  
11 comment went to that specific area with regard to Mr. Corley  
12 or not. I just don't recall.

13 Q To whom besides Corley are you referring?

14 A I don't recall making any reference to anyone  
15 other than Corley with regard to the comment that Gallagher  
16 made.

17 Q Did Gallagher refer to anyone besides Corley?

18 A I do know that Mr. Gallagher also had some  
19 comments to make about Mr. Bird, but I cannot recall whether  
20 or not Mr. Bird was mentioned in this same regard. I just  
21 don't recall. I know his name came up and there was some  
22 dissatisfaction expressed by Mr. Gallagher about his

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1 performance or his abilities. And I'm having difficulty  
2 recalling specifics in regard to Mr. Byrd.

3 Q Okay.

4 Other than Mr. Byrd and Mr. Corley and Mr. Horn,  
5 whom you indicated the comment was made about earlier, were  
6 any other Consumers personnel discussed at that SALP board  
7 meeting that you recall?

8 A No, I can't recall other Consumers personnel  
9 discussed in the context that you're asking about, quality  
10 assurance and that type thing.

B5

11 Q Well, what about in some other context at the  
12 SALP meeting? I mean I don't know if you were trying to  
13 limit your answer. You say "in the QA context."

14 A No, I just don't recall any other names being  
15 discussed--

16 Q All right.

17 A -- in the context of the SALP review. There may  
18 have been others but as I sit here now I just can't recall  
19 it.

20 Q Okay.

21 I have what has been marked Consumers' Exhibit  
22 Number 24 and it's a December 1st, 1980 memorandum for the

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1 file from you listing amendments to the Midland OL applica-  
2 tion.

3 (Whereupon, the document  
4 referred to was marked  
5 as Consumers Exhibit 24  
6 for identification.)

7 BY MR. ZAMARIN:

8 Q To the best of your knowledge is this list, which  
9 goes through November 21st, 1980 and Amendment Number 85,  
10 complete?

11 A Yes, and current.

12 Q And Mr. Brunner wants to know if it's accurate  
13 also, to the best of your knowledge?

14 A Yes, it's accurate. I prepared it so it's bound  
15 to be accurate.

16 I'm just jesting of course. Yes, I believe it  
17 to be accurate.

18 MR. ZAMARIN: I don't have anything further and  
19 as I indicated, I think it was to Bill Paton this morning,  
20 that originally we had left the deposition open because of  
21 a desire to go through all the acceptance criteria and as I  
22 discussed with Bill, I think that the interrogatories are

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1 going to take care of that and there will be no need for any  
2 further deposition of Darl.

3 The only way that we would request to reopen it  
4 would be if we got some kind of a response to an interroga-  
5 tory that indicated that we really ought to take somebody's  
6 deposition on this, or something like that. But absent  
7 that, we're done.

8 MR. JONES: I have no questions.

9 (Whereupon, at 7:35 p.m., the taking of the  
10 deposition was concluded.)  
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CERTIFICATE OF NOTARY PUBLIC AND REPORTER

I, William R. Bloom, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition had been previously duly sworn; that the testimony of said witness was taken by me by Stenomask and thereafter reduced to typewriting by me or under my direction; that said deposition is a true record of the testimony given by said witness; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.



W. R. Bloom  
Notary Public in and for  
the District of Columbia

My commission expires 14 August 1985.