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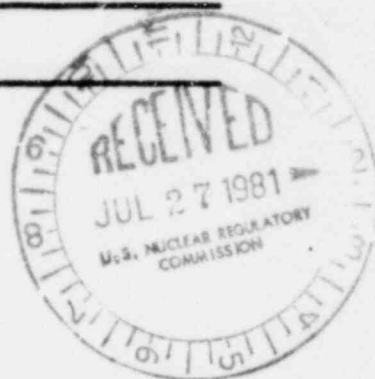
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

CONSUMERS POWER COMPANY)
Midland Plant, Units 1 and 2) DOCKET NO. 50-329 OL & OM
50-330 OL & OM

DATE: July 17, 1981 PAGES: 2638 - 2782

AT: Midland, Michigan



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UNITED STATES OF AMERICA

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CONSUMERS POWER COMPANY : DOCKET NOS. 50-329 OL & OM
: 50-330 OL & OM
Midland Plant, Units 1 and 2 :
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Midland County Courthouse
301 West Main Street
Midland, Michigan

Friday, July 17, 1981

Evidentiary hearing in the above-entitled
matter was convened, pursuant to notice, at 9:00 a.m.

BEFORE:

CHARLES BECHHOEFER, Esq., Chairman,
Atomic Safety and Licensing Board

FRED COWAN, Member

RALPH DECKER, Member

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APPEARANCES:

On behalf of the Applicant, Consumers Power Company:

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Appearing pro se:

BARBARA STAMIRIS

On behalf of the Regulatory Staff:

WILLIAM PATON, Esq.,
ELLEN BROWN, Esq.,
JAMES THESSIN, Esq.,
Office of Executive Legal Director,
United States Nuclear Regulatory Commission,
Washington, D.C.

P R O C E E D I N G S

(9:10 a.m.)

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CHAIRMAN BECHHOEFER: On the record.

Good morning, ladies and gentlemen.

As a preliminary matter, just in case we forget to ask, in the Staff's letter of June 25 to Mr. Miller, which concerned the Board information and the testimony for August, we wanted to the inquire at the present time what the status of the Board information was, whether the assumption that we couldn't take up that in August still holds?

MR. PATON: Yes, Mr. Chairman. We do expect to proceed with information about the dike that results from borings that were taken, but as to the other borings that relate to the diesel generator building, the last I heard from the Applicant, we expect to receive that information-- and correct me if I'm wrong--August 3rd or 4th, so we would not be able to present that at that session of the hearing.

CHAIRMAN BECHHOEFER: You have received enough information on the dikes so you--

MR. PATON: Yes, we have. We expect to be able to present testimony, and we will file our testimony on July 23rd.

CHAIRMAN BECHHOEFER: Well, whatever the date is.

MR. PATON: Yes.

K1L2

1 CHAIRMAN BECHHOEFER: Are there any other
2 preliminary matters?

3 MR. MILLER: No, sir.

4 CHAIRMAN BECHHOEFER: Before we adjourn for the
5 day, I guess we ought to have a summary of what will be--what
6 we will hear in August, for a clarification of everyone.

7 I guess, Mr. Hood, you can--

8 MS. BROWN: We understood that Mr. Turnbull
9 would be put on first thing.

10 MR. MILLER: I thought we were going to proceed
11 with Mr. Hood.

12 MS. BROWN: Fine. All right.

13 MR. MILLER: Is that all right? I have-- I
14 don't know how long, and then Mr. Turnbull will be available.
15 We can do it either way the Board wishes.

16 CHAIRMAN BECHHOEFER: Yes, the Board, I don't
17 think, has any preference one way or the other.

18 MS. BROWN: All right. We will continue with
19 Mr. Hood.

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1 Whereupon,

2

DARL S. HOOD

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resumed the stand as a witness on behalf of the NRC Staff
4 and, having been previously duly sworn by the Chairman, was
5 examined and testified further as follows:

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CHAIRMAN BECHHOEFER: Ms. Stamiris, I mentioned
that if you had any further questions this morning-- You had
indicated that you had been through, but I said if you had
any further questions of Mr. Hood, you could ask him.

10

MS. STAMIRIS: I do have a few more.

11

CHAIRMAN BECHHOEFER: Okay.

12

CROSS EXAMINATION (Resumed)

13

BY MS. STAMIRIS:

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Q Mr. Hood, last week the question was raised
as to whether Consumers had done any sort of cost/benefit
analysis of the whole soil settlement problem, and I'm wondering
if the NRC has ever done such an analysis or totaled up how
much money it has expended towards this regulatory effort on
soils settlement issues.

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22

A Your question is directed to how much money
the Staff or the NRC has spent within its own organization
associated with the Midland soils settlement matter?

23

Q Yes.

24

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A Those kinds of things are available to us.
That kind of information is available to us within our accounting

K1L4

1 system. To my knowledge, there's been no special effort to
2 perform any kind of a cost/benefit use of that data.

3 Q And would I also be correct in assuming then
4 that there has not been an attempt to identify the NRC effort
5 in terms of man hours put in, or anything like that?

6 A Not in the sense of a cost/benefit. Such data
7 may have relevance to internal decisions made by the NRC.
8 For example, whether or not additional personnel should be
9 brought on board, or for planning purposes--typical type of
10 administrative matters, but if I understand the thrust of your
11 question to be a cost/benefit, no, I would have to say that we
12 haven't done that sort of thing to my knowledge.

13 Q I wanted to ask you some questions about some
14 of the attachments. Attachment 16--

15 CHAIRMAN BECHHOEFER: One second. I haven't
16 found it yet.

17 I don't see 16.

18 MR. MILLER: It is a June 13, 1979 memorandum
19 from Mr. Thornburg to Dudley Thompson.

20 CHAIRMAN BECHHOEFER: Okay. I got it.

21 Q (By Ms. Stamiris) Mr. Hood, would I be correct
22 to assume that this attachment represented a discussion of
23 consideration that had been given as to the treatment of the
24 false statements as they were to be handled in the December 6th
25 order? I mean the false statements in the FSAR.

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1 A Yes. The document reflects the comment of
2 Harold Thornburg, Director of the Division of Reactor Construc-
3 tion and Inspection in the Office of Inspection and Enforce-
4 ment, or others under him, with respect to that matter.

5 Q I wanted to ask if Mr. Thornburg-- Is he the
6 top-- What is his position in Region III? I mean I know
7 you have given me his title, but I don't understand where.

8 A He is the Director in what we call headquarters.

9 CHAIRMAN BECHHOEFER: He is not in Region III.

10 MS. STAMIRIS: Oh.

11 THE WITNESS: He is based in Bethesda.

12 Q (By Ms. Stamiris) I see. So did this position
13 represent--this initial position going into the meeting, am
14 I correct in assuming that the position set forth on this
15 June 13th memorandum was a position taken prior to any legal
16 input and discussion on materiality?

17 A I don't know if I can answer that question prior
18 to any legal input. I would characterize this as a work
19 product. The decision is in the process of being generated,
20 and this is an element of the decision-making process.

21 Q And could you tell me in a broader sense, besides
22 Mr. Thompson, did this represent-- Who did this represent?
23 Who was Mr. Thompson speaking for?

24 A You mean who was Mr. Thornburg speaking for?

25 Q I'm sorry. Mr. Thornburg.

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CHAIRMAN BECHHOEFER: I think I agree. I'm not sure I understand it.

Could you sort of rephrase it, or try to make it clearer?

Q (By Ms. Stamiris) Is a civil penalty--has that got a severity level attached to it? Is a civil penalty worse than... I'm sorry; I'll just stop with my first question.

Is there a severity level number attached to civil penalties?

A. I don't know.

Q. What I really want to get at is: Is my understanding of these statements that we've talked about--and I believe that Attachment 17 also refers to the same basic subject matter--the final decision on how they would be handled was determined on this definition of materiality that I see in the middle paragraph of Attachment 17, which says: "Statement was deemed to be material if, notwithstanding the fact that it was detected by the I&E investigation, it would or could have an influence upon safety preclusion by the NRR Staff."

A. Yes, ma'am. I believe you read it correctly. I might explain the process just a little bit. The determination of whether or not a statement is false can be made by the Region and by the Office of Inspection and Enforcement. The determination as to whether a statement is material or had

1 materiality will be made by that organization that would be
2 using that material. In this particular case, in the
3 information is such--the information as to materiality, falls
4 under the Office of Nuclear Reactor Regulation.

5 The matter of whether or not there is a civil
6 penalty associated with material false statements would be
7 made by still another arm, which we call the enforcement arm,
8 or the Office of Inspection and Enforcement, and Mr. Thompson,
9 the recipient of Attachment 16 to which you referred would
10 be in that arm.

11 Q I see. What I--I think my last question in
12 this line is this:

13 Given the process which you've just described
14 to me, which I would say was the criteria applied as to
15 materiality for these statements, am I correct in believing
16 that that criterion was applied individually to each of those
17 false statements, as opposed to putting them all together and
18 applying that criterion of materiality?

19 A As reflected in Attachment 17, an individual
20 position or consideration is given to each of five candidate
21 statements--candidates for material false statements. This
22 is from the standpoint-- My response is from the standpoint
23 of their being material; is that the thrust of the question?

24 Q Yes.

25 A Thank you.

1 Q On the very last page of Enclosure 2, which I
2 believe is still a part of Attachment 17, there's a discussion
3 of these different inconsistencies which it was determined
4 would not or did not influence the safety conclusions in that
5 way--in the way you just described, and these are examples
6 of inconsistencies or conflicts between the design document
7 or the procedural requirements and what was actually done, are
8 they not?

9 A These are the decisions within NRR as to the
10 materiality of each of five candidate statements, those five
11 statements being identified in the April 3rd Keppler memoran-
12 dum, which is Attachment 15.

13 Q I think you misunderstood my question. I
14 satisfied my curiosity as to how you applied your criterion
15 and how the decision was made. I was just using this kind of
16 as a source now for a different type of question, just asking
17 you whether or not this identifies some problems and design
18 inconsistencies in the FSAR.

19 A No, ma'am, I wouldn't say these identify that;
20 these reflect decisions as to the materiality of that statement.

21 Q I understand that that's what they reflect in
22 their completeness. I was asking whether in each of those
23 numbered paragraphs there is a reference to a design incon-
24 sistency, and I don't think-- That was more or less a background
25 question, so I'll just try and ask the next question, okay?

1 A. What I'm trying to tell you, though, is that the
2 statement upon which we are making the decision is that state-
3 ment that is reflected elsewhere, maybe in Attachment 15.
4 And it's that attachment that reflects that something may have
5 gone wrong.

6 Q. Well, since-- You know, instead of referring
7 back to where you are telling me that they are noted in
8 Attachment 15, I'd just like to ask you whether these changes
9 that I'm familiar with in the past represent changes to the
10 PSAR commitments that were made by the Applicant, without prior
11 approval of the NRC? And I'm referring to the change to the
12 diesel generator building foundation.

13 MR. MILLER: I'm going to have to object to the
14 question, because it really lacks foundation as to whether or
15 not NRC approval would, in fact, be required for the kinds of
16 changes in the PSAR that are described.

17 MS. STAMIRIS: I haven't asked that yet; I'm
18 just--

19 MR. MILLER: She asked that first. Let's
20 determine whether it's fact.

21 MS. STAMIRIS: Well, I wasn't making that as my
22 factor--I wasn't using that as a basis, and I was going to ask
23 it last. I was going to ask whether or not a change was made
24 to the diesel generator building foundation without NRC prior
25 approval. I'm not asking whether it should or should not have

1 been. I'm just asking if that change was made, that the NRC
2 was unaware of.

3 MR. MILLER: Mr. Chairman, my objection is that
4 if NRC approval was not required for such a change, then the
5 question is not material to anything before the Board.

6 MS. STAMIRIS: I'm simply trying to establish
7 a fact.

8 CHAIRMAN BECHHOEFER: The fact has to be
9 relevant to what we have to decide. Is it a foundation fact
10 for something else, or--

11 MS. STAMIRIS: Well, I'm going somewhere with
12 it. I mean I have a series of about four or five questions
13 that, in the end, will relate to-- What Mr. Miller is really
14 talking about is... I believe it's relevant to gaining some
15 more input as to how decision-making processes were handled
16 by the Applicant, which I believe reflects on managerial
17 attitude.

18 CHAIRMAN BECHHOEFER: I think, as a predicate,
19 we should find out first whether NRC approval was--is or is
20 not required, was or was not required. Mr. Hood, would you
21 first start with that?

22 THE WITNESS: Yes, sir. Looking at the item
23 enunciated in Enclosure (2) of Attachment 17, discussing
24 matters like indexing compressibility, load density, those
25 kinds of matters are not matters I would expect to be reviewed

1 in the PSAR stage. So I don't see the thrust of concern so
2 much as to whether or not it's a change from PSAR to FSAR,
3 as much as I do the fact that the FSAR content is inaccurate.

4 CHAIRMAN BECHHOEFER: As a further question,
5 would these be the types of matters where formal NRC approval
6 wasn't required, and Applicant would normally at least confer
7 with NRC before it made a change?

8 THE WITNESS: Well, the matters that I enumerat-
9 ed, probably not. I don't think that they're paramaters that
10 are terribly sensitive to analysis.

11 The difficulty is that the FSAR is a document
12 that should be accurate. That's what this memorandum is all
13 about, is pointing out certain inconsistencies which are all
14 these inaccuracies.

15 MS. STAMIRIS: And I might add that I think the
16 thrust of my question has been-- Well, I think Mr. Hood
17 understands that I am more interested in the end result than
18 the reportability of the changes, and I didn't mean to refer
19 to these--I was not referring to these specific examples
20 listed. I was going to look at what I thought were maybe
21 broader things. I wanted to raise the diesel generator
22 building foundation change, the sand layer that was not
23 removed. Well, skip that. I just want to skip that and go
24 to my end question.

25 Q. (By Ms. Stamiris) Has approval of the final

1 'design changes due to remediation now been solved by the
2 Applicant in Amendment 72 and others?

3 A. Yes, ma'am.

4 Q. Could you tell me what is the number of the
5 last amendment that details some remedial design changes?

6 A. I'm not absolutely sure of this answer. I
7 believe it's FSAR Revision 32. I don't believe, as I sit
8 here, that Amendment 33--excuse me--Revision 33, was ever
9 issued.

10 MR. DECKER: For the record, for my information,
11 the previous question asked if the NRC had received amend-
12 ments for remedial actions. What remedial actions are we
13 talking about?

14 MS. STAMIRIS: I mean soil settlement remedial
15 actions.

16 MR. DECKER: Oh.

17 THE WITNESS: I answered it in the context of
18 meaning any of them, an amendment that touched on the subject
19 of any of the proposed remedial actions.

20 MS. STAMIRIS: That's what I meant, any that had
21 to do with the soil settlement issue, even if-- Well, I think
22 you answered my question.

23 Q. (By Ms. Stamiris) What I want to ask is, these
24 amendments that have been submitted now, which reflect the
25 proposed design changes to various structures, were these

1 amendments submitted in response to the December 6 order
2 modification?

3 A. That's difficult to answer. Clearly we have
4 had amendments reflecting responses to 50.54(f) questions by
5 the Staff, and clearly that is a matter that is closely tied
6 to the order.

7 On the other hand, I can't think that everything
8 that is in those amendments is a result of those questions.

9 To be more direct, I guess the only amendment
10 that is in direct response to the order, per se, would be
11 FSAR Amendment 72, which I interpret to be the Applicant's
12 request for amendment to his licenses, which is the subject
13 of the order.

14 Q. Amendment 72 is an amendment to the construction
15 permit?

16 A. It's not clear. There's a legal matter here,
17 and it's a little complex. The order goes to--

18 MS. BROWN: I'm going to object. I think it's
19 improper for Mr. Hood to be discussing and speculating the
20 legality of whether it's an amendment to the construction
21 permit or an amendment to the FSAR.

22 MS. STAMIRIS: I didn't mean to press him on
23 legal questions. I've had trouble understanding this, myself,
24 in the past, and I know I've gone through it a hundred times
25 with other people.

1 THE WITNESS: Others of us have had problems
2 on that, too.

3 Q (By Ms. Stamiris) What I really want to know
4 is: Is the approval--and I'm not speaking specifically of
5 Amendment 72, but all of these amendments that could be
6 related to soil settlement issues that have been offered, is
7 the approval of these design amendments still being evaluated
8 by the Staff in relation to this proceeding?

9 A Yes, ma'am. There are subsequent sessions of
10 this very hearing where we'll be testifying on the contents
11 of the subject matter of the amendments.

12 Q So the resolution of those amendments will
13 depend on the resolution of this proceeding?

14 A I believe that this proceeding has been
15 scheduled or will be scheduled to coincide with the anticipated
16 review of that matter, yes.

17 Q Mr. Hood, on page 12 of your questions and
18 answers in your testimony, at the bottom paragraph is a
19 discussion about your opinion or reflection about two major--
20 I shouldn't say "major"--two action decisions by the
21 Applicant, the first being the decision to remove and replace
22 the surcharge for the diesel generator building without
23 NRC assurance. And the second being the decision to proceed
24 with the construction of the borated water storage tanks
25 without first performing the analysis for variable foundations

1 and properties and cracks, as discussed in one of the .54(f)
2 questions.

3 I want to discuss with you these things, and
4 I want to ask whether your impression of the removal and
5 replacement option that was not selected, was it your
6 impression that the removal and replacement option was a more
7 conservative option?

8 MR. MILLER: I'm going to object.

9 (Continued on following page.)

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1 MR. MILLER: I think I'm going to object. This
2 really goes to the merits of the remedial action that was
3 considered, the one ultimately taken by the Company. As I
4 understood, it was going to be addressed in a later session of
5 the hearing.

6 MS. STAMIRIS: Judge Bechhoefer--

7 CHAIRMAN BECHHOEFER: We are going to go into
8 detail later, but we will overrule the objection because part
9 of this testimony at least bears upon that. I hope you won't
10 go into too many details on that now because it will be subject
11 to considerable--I would imagine considerable discussion at the
12 later session.

13 MS. STAMIRIS: These were very brief background
14 questions.

15 A I think I would agree with that characteriza-
16 tion, with the more conservative option. The conservative--
17 in my mind it would have been free of some of the difficulties
18 associated with the option that was selected with the surcharge
19 program.

20 In the removal and replacement option, the
21 opportunity would have been present for the complete removal
22 of the sands, which necessitates a need for the dewatering system
23 for that particular structure.

24 The opportunity for achievement of uniform
25 proper compaction would have been present with that option.

K3L2

1 For those kinds of reasons, I would say, yes, it was, in my
2 mind, the more conservative of the two options that were--
3 of the two options that were recommended by the consultants.

4 Q Yes.

5 CHAIRMAN BECHHOEFER: Mr. Hood, let me have a
6 follow-up question. If the Applicant had gone ahead with the
7 removal and replacement option without providing a complete
8 analysis of it to the Staff, would the Staff then have regarded
9 the Applicant as exhibiting a reluctance to provide requested
10 information, or wouldn't you have requested it?

11 THE WITNESS: The difficulty I'm having with
12 your question, Judge Bechhoefer, is I'm trying to envision
13 the context under which that action would have proceeded. Had
14 that removal and replacement option proceeded without the quality
15 assurance breakdown, first--if that had not previously been
16 corrected before that action was taken, we would still,
17 nevertheless, have concerns about such an activity.

18 I don't think I'm responding directly to your
19 question, though.

20 Could I have the last part of your question back?

21 CHAIRMAN BECHHOEFER: Well, I was just reading
22 a different option into your conclusion on Page 13, to see
23 if it would follow--the top two lines of 13. If the lack of
24 coordination with the Staff had been with respect to the other
25 option, I was just trying to figure out what your conclusion

K3L3

1 would be.

2 THE WITNESS: Judge Bechhoefer, I think regard-
3 less of the option that was selected, the Staff would want
4 certain information and want it up front about what was planned,
5 how to proceed in sufficient depth that we could agree that
6 that was the right way to go about it.

7 I think even if the option of removal and
8 placement had been selected, there would have been an inquiry
9 from the Staff.

10 It's hard for me, in the abstract, to envision
11 whether or not the depth and whether or not the flow of informa-
12 tion would have been as free. I don't know that I can answer
13 that in the abstract.

14 CHAIRMAN BECHHOEFER: Well, I realize there's
15 some difficulty there.

16 You may continue.

17 Q (By Ms. Stamiris) Mr. Hood, would this be a
18 correct statement, that your job--I mean the NRC's job now
19 is to evaluate whether the final construction meets the require-
20 ments to ensure safe operation of the plant?

21 THE WITNESS: Could I have that back, please?

22 (Question read by the reporter.)

23 A Certainly our responsibility is much broader
24 than that, our responsibility being to ensure the health and
25 safety of the public, but that is an element of that broader

K3L4
1 responsibility.

2 Q Yes. Mr. Hood, do you feel--keeping these two
3 examples that you mentioned in mind, in the decisions and
4 actions that were taken, do you feel that your final decision--
5 or this decision that I have just described has been made more
6 difficult by the decision to proceed at their own risk?

7 MS. BROWN: I'd just like a clarification on
8 which decision are you talking about?

9 MS. STAMIRIS: I'm asking him whether his decision
10 on evaluating the final safety requirements--if he believes
11 it is more difficult now.

12 A To my mind, the decision to pursue the observa-
13 tional method and the method that the Staff's licensing
14 activities are predicated upon, basically a two-step licensing
15 process, has made it somewhat more difficult for us in our
16 review efforts. Our task is to provide up-front decisions that
17 those activities are reasonable and will reasonably be expected
18 to achieve the end product, and that the process of doing
19 that will not endanger the health and safety of the public.

20 Our difficulty is that the observational
21 method is acquiring that information as that activity is in
22 process, and indeed it is using that as a basis for further
23 action.

24 It is a somewhat more difficult process and
25 does not always provide the same degree of up-front assurances
that we would like to have.

K3L5

1 To that extent, yes, it makes it somewhat
2 more difficult.

3 Q I think that answers my question very well.

4 Mr. Hood, I'm sure I should explain some
5 more of the details. You are familiar with the Applicant's
6 seismic deferral motion in which arguments were set forth to
7 proceed at their own risk and not have the seismic updated
8 until later. I want to ask if you are familiar with that.
9 What I want to ask is do you believe the NRC has taken a
10 different position at this time by demanding that the seismic
11 update be applied now to these remedial structures rather than
12 accept the argument of letting the seismic update wait until
13 the operator's license stage.

14 MR. MILLER: I'm sorry--

15 A There are several questions. The answer to the
16 first question is, yes, I am familiar with that matter.

17 The answer to the second part is I believe
18 that the matter was properly handled and was handled, I believe,
19 by a decision from Judge Bechhoefer as to the relevance of the
20 seismic matter to this hearing.

21 I do not have any concern whatsoever about that
22 decision.

23 Q I didn't mean to-- What I'm trying to understand--
24 I will just ask you for brief answers and I will try to ask
25 it in parts this time.

K3L6

1 Do you believe that the position that the
2 Applicant took in his seismic motion represented a request
3 to proceed at his own financial risk?

4 MR. MILLER: Objection.

5 MS. BROWN: I'm going to object to this line
6 of questioning. I fail to see the relevance of it to Contention
7 1, or even if we are permitting liberal cross examination,
8 I don't see its relevance to other matters before the Board,
9 what was in a particular motion that preceded this hearing,
10 and the decision has been made and it binds all parties now.

11 MS. STAMIRIS: I'm just trying to-- It seems
12 like a lesson has been learned, or it seems like at least,
13 you know, maybe that's overdrawing a conclusion, but it seems
14 like the NRC is taking a slightly different approach now,
15 and I would like to determine whether there is an irrelevance
16 to this in the fact that-- And I understand that the decision
17 was made by you, Judge Bechhoefer, not by Mr. Hood.

18 Q (By Ms. Stamiris) But do you believe the
19 decision that was made as a part of this proceeding, the
20 decision that the seismic requirements needed to be applied
21 to the structures at this stage of the game as opposed to when
22 they were completed at the operator's license, do you believe
23 that overall it represents a change?

24 MR. MILLER: Excuse me. I really-- I have two
25 objections. First, overall I think that's a mischaracterization

K3L7

1 of the Company's position with respect to seismic issues
2 in this hearing, and secondly, the question is vague. Different
3 from wha'? I don't understand the contrast that's attempted
4 to be drawn in the question. It is vague on that score.

5 MS. STAMIRIS: I mean to ask whether he believes
6 the NRC overall approach to this problem is different than the
7 approach to the preload and borated water storage tank.

8 MR. MILLER: That's a different question.

9 CHAIRMAN BECHHOEFER: As long as there is no
10 implication in the question about the position of the Company,
11 you can ask him whether our decision is consistent with the
12 Staff's approach to some of these other matters, I suppose,
13 if that's what you want.

14 MS. STAMIRIS: I guess I don't want to ask
15 it that way because I don't mean to draw a distinction between
16 your decision as head of this Atomic Safety and Licensing
17 Board and the overall NRC.

18 I think that it was arrived at by, you know--
19 had to do with the NRC approach to the position too, and
20 I don't know if-- I know it sounds--

21 CHAIRMAN BECHHOEFER: I think he is going to
22 have trouble answering.

23 THE WITNESS: I'm going to have trouble under-
24 standing the question, much less answering it.

25 MS. STAMIRIS: Okay. I will just withdraw that

K3L8

1 line of questioning.

2 Q (By Ms. Stamiris) I really only have one other
3 question, and it has to do with a statement that I'm sure
4 you are very well aware of. It's in your closing statements
5 of the December 3rd and 4th meeting that is Attachment 11, and
6 the statement is that the NRC Staff stated that the proposed
7 solution is at the risk of the Applicant in that the NRC
8 intends to review and evaluate this matter in accordance with
9 the original compaction requirements as set forth in the
10 commitments in the PSAR, and I just want to ask you what is
11 perhaps an obvious question, but why did you believe this
12 was important to close the meeting that way?

13 A The Applicant had indicated that during the
14 meeting, as I recall, it intended to proceed with surcharging
15 of the diesel generator building. Staff did not indicate
16 its concurrence at that meeting, and indeed did not feel it
17 was in a position to do so.

18 This is merely acknowledging the fact that the
19 Applicant is proceeding without the explicit approval of the
20 NRC, and he is therefore proceeding at his own risk.

21 I believe there was another part of the statement
22 that you quoted. I don't know if you--

23 Q I would like you to reflect on the other part.

24 A It is acknowledging that we intended to review
25 the matter in accordance with the commitments that were

K3L9

1 established in the PSAR.

2 MS. STAMIRIS: I have no further questions,
3 unless Mr. Hood has something he wanted to offer on that.

4 THE WITNESS: No, ma'am.

5 CHAIRMAN BECHHOEFER: Mr. Miller, I guess it is
6 a little early for a break.

7 MR. MILLER: No, I prefer to proceed, Mr.
8 Chairman.

9 CROSS EXAMINATION

10 BY MR. MILLER:

11 Q Mr. Hood, in response to a question from Ms.
12 Stamiris, you talked about changes in the FSAR. Has the FSAR,
13 as a document, been formally amended to reflect the proposed
14 remedial action that the Applicant, Consumers Power Company,
15 proposed to take?

16 A It has and it is continuing to be amended to
17 reflect in part-- Excuse me a moment. There is a statement
18 that the Applicant has given us of intent to amend the FSAR
19 at an appropriately later stage, whatever that is.

20 Q Isn't that when there is concurrence by the
21 Staff with the remedial actions that the Applicant plans?

22 A That's my understanding.

23 Q So that the FSAR will then reflect the position
24 of the Company as concurred in by the Staff with respect
25 to these remedial actions?

K3L10

1 A That's my understanding.

2 Q And you have, in fact, indicated your own
3 agreement with that sort of an approach by the Company to the
4 formal amendment to the FSAR, have you not?

5 A I believe I have.

6 Q And in fact, this is fairly common with respect
7 to the FSAR, not just for Midland but for all nuclear power
8 plants, conforming amendments follow on sometime after there
9 is resolution of technical issues between an Applicant and the
10 NRC Staff, isn't that right?

11 A I would say it is not uncommon for situations
12 where events are changing rapidly, and I believe that was the
13 situation in which I indicated my agreement that the FSAR
14 is not intended to be a living document for rapidly changing
15 events, and I believe that was the situation certainly at the
16 outset of this soil settlement matter, where the remedial
17 actions were evolving and situations were changing almost
18 from day to day in that evolution of the process, and Mr.
19 Jim Zabritski, who was in the licensing organization, had
20 indicated to me the difficulty that he would have trying to
21 maintain the FSAR as an accurate document reflecting such
22 rapidly changing events, and I certainly agreed with him that
23 it was not the intent of the FSAR, and a more broad course
24 would be to let matters gel, decisions firm up, and then update
25 the FSAR.

K3L11

1 Q Mr. Zabritski is an employee of Consumers
2 Power, is he not?

3 A Yes, and at that point in time he was with the
4 Consumers Licensing organization.

5 Q Simply because the evolution of the remedial
6 measures is not reflected in the FSAR, there is no indication
7 that Staff is not fully informed about the Applicant's posi-
8 tion from time to time with respect to these matters, is
9 there?

10 A In this case I would say that that's a true
11 statement.

12 Q Now, you were examined about the last page of
13 Attachment 17 to your testimony, which sets out five inconsis-
14 tencies in the FSAR. Mr. Hood, you have review responsibilities,
15 or have had in the past, for other nuclear power plants in
16 addition to Midland, is that correct?

17 A That's correct.

18 Q Is it fair to say that the inconsistencies
19 in the FSAR are not uncommon?

20 A Yes.

21 Q And the definition of materiality that appears
22 on the first page of Attachment 17 of your testimony, is that
23 the same definition that is found--is the word "material"
24 that is found on Page 4 and Page 6 of your prepared testimony
25 in response to Question 5 defined the same way as it is in

K3L12

1 Attachment 17, using the word "material" in the same way?

2 A It is intended to be consistent.

3 Q And just for the record, O-E-L-D, the four
4 letters that start that second paragraph of Attachment 17,
5 that's the Office of Executive Legal Director?

6 A No. OELD is the-- Yes, yes.

7 Q And that's the NRC legal branch that's concerned
8 with licensing, is it not?

9 A Yes, it is.

10 Q And so the definition that you have used in
11 your testimony is in essence a legal definition, is that
12 correct?

13 A Yes. It is what we call the North Anna test.
14 It comes out of the North Anna proceeding.

15 Q You anticipated my next question. The material-
16 ity standard was in effect established by the Atomic Safety
17 and Licensing Appeal Board in reported decisions, was it not?

18 A That's correct.

19 CHAIRMAN BECHHOEFER: I believe the Commission
20 had something to say about it in that case as well.

21 MR. MILLER: Yes, they did.

22 Q (By Mr. Miller) Now, I'd like to call your
23 attention to the beginning of Ms. Stamiris cross examination,
24 when you were asked about the responses to the FSAR questions
25 on tectonic provinces and other seismic matters. Do you recall

K3L13

1 that?

2 A Yes.

3 Q Now, first of all, in addition to the formal
4 responses to FSAR questions that are reflected in Mr. Kimball's
5 portion of the testimony that's in response to Stamiris
6 Contention 1, were there other mechanisms by which the NRC
7 and Consumers Power Company exchanged views and information
8 with respect to resolution of their differences on the seismic
9 issue?

10 A Yes, there were.

11 Q Would you describe those for us, please?

12 A Communication on tectonic province have involved
13 meetings, have involved telephone discussions, and, of course,
14 the obvious, the formation of information in the FSAR itself,
15 including its question and answer mechanism.

16 Q Now, there was a reference to an October 14,
17 1980 letter from Mr. Tedesco to Consumers Power Company with
18 respect to two alternative approaches for dealing with seismic
19 criteria for the Midland site, do you recall that?

20 A Yes.

21 Q Was that position expressed by Mr. Tedesco in
22 that letter unique to Consumers Power Company, the Midland
23 plant?

24 A I'm having a little difficulty understanding
25 the question. Are you asking me, was the letter itself unique?

K3L14

1 Certainly it was addressed to Consumers.

2 Q Certainly. The position expressed in the letter.

3 A The position-- At least one of the alternatives
4 came out of the Sequoyah case, so it is not--if it is your
5 question, is it something new, no, I wouldn't say it is new,
6 and certainly in the other alternative-- Site specific
7 factor, it's the one I'm referring to, evolved from the Sequoyah
8 case, and I believe it is basically consistent with that.

9 The other alternative which is more standard
10 would be recognized as regulatory Guide 160.

11 (Continued on next page.)

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1 Q That's been outstanding for some time, has it
2 not?

3 A Yes.

4 Q But when was the Sequoyah case, to which you
5 referred, decided?

6 A It's fairly recent. I think about a year; maybe
7 a year old.

8 Q Were other applicants for an operating license
9 informed of the availability of the site-specific response spectra
10 approach of the Sequoyah case at about the same time as
11 Consumers Power was notified by Mr. Tedesco by the October 14,
12 1980 letter?

13 A I'm not sure if other applicants were informed.
14 Certainly that entire issue was open to the public. Other
15 applicants do follow developments from other plants, so I'm
16 quite sure they were aware of it.

17 Q Well, let me sharpen my question a little bit.

18 Did other applicants for operating licenses get
19 letters that were, in substance, similar to Mr. Tedesco's
20 October 14, 1980 letter to Consumers Power Company respecting
21 the Midland site?

22 MS. BROWN: I'm going to object to that question.
23 I realize that Mrs. Stamiris was allowed to ask some questions
24 on the tectonic province, but I don't believe this really
25 directly relates to the questions she was asking. Furthermore,

1 it really has nothing to do with any of the testimony that
2 Mr. Hood is sponsoring.

3 MR. MILLER: Well, I think I'm almost there, in
4 terms of establishing the fact that Consumers Power Company
5 was sent this letter on October 14, 1980 does not reflect a
6 situation that is necessarily unique to the Midland site, or
7 to the Company's cooperative approach or lack thereof with
8 respect to resolving these seismic issues; but arose, instead,
9 out of events that were totally separate from anything having
10 to do with Midland. And, further, that other applicants for
11 an operating license were in about the same situation as the
12 Midland plant.

13 CHAIRMAN BECHHOEFER: I think we'll overrule
14 the objection, but I don't want to get into the merits of the
15 two approaches. I might ask-- I might warn people that I have
16 a question that's just as objectionable as yours, along the
17 same line.

18 (Laughter.)

19 MR. MILLER: Well, I'll defer to the Chairman,
20 then. No one objects to your questions.

21 (Laughter.)

22 CHAIRMAN BECHHOEFER: You may answer that
23 question.

24 A. Mr. Miller, I don't have any recollection as to
25 whether other plants got letters similar to the one that went

1 out to Midland or not. If they did, I'm not aware of it.
2 That doesn't mean that they didn't. It just means that I
3 don't know if they did.

4 Q To your knowledge, Mr. Hood, was there some
5 notification process by the Staff to all applicants for an
6 operating license that the site-specific response spectra
7 approach that was approved, if you will, or accepted by the
8 Staff in the Sequoyah case was an available option for pending
9 operating license applications?

10 A I have some vague recollection of some generic
11 letter to that end; some kind of a communication went out from
12 the NRC. I'm sorry, it just--

13 Q That's quite all right. It obviously would have
been subsequent to the Sequoyah decision, correct?

14 A Yes.

15 Q And just so we're clear, I'm correct, am I not,
16 that Sequoyah was not the subject of an Atomic Safety and
17 Licensing Board proceeding; it was--

18 A The ACRS, as I recall.

19 Q An ACRS decision, or-- ACRS what, sir?

20 A The position was adopted as part of the interact-
21 ing with ACRS.

22 Q I see. Okay. And to your recollection, that
23 occurred approximately a year ago, maybe a little bit more;
24 is that correct?
25

1 A. Thereabouts.

2 CHAIRMAN BECHHOEFER: You essentially asked the
3 question I was going to ask, but just to confirm it, the
4 Sequoyah decision did not have adjudicatory approval, is that
5 correct, by a Licensing Board or by the Appeal Board?

6 THE WITNESS: Judge Bechhoefer, I'm just not
7 familiar enough with the details of the Sequoyah case to
8 answer that.

9 CHAIRMAN BECHHOEFER: I see. Okay. Insofar
10 as you know, it was a Staff position?

11 THE WITNESS: Certainly the October 14 letter
12 was a Staff position.

13 CHAIRMAN BECHHOEFER: Well, I'm aware of that.

14 THE WITNESS: My recollection--I'm assuming
15 you're referring to this other communication that went out
16 to other applicants--

17 CHAIRMAN BECHHOEFER: No, I'm referring to the
18 decision in the Sequoyah case; do you know whether that was
19 a Staff decision, which obviously, since it was rather
20 recently, was probably approved by the Commission, but was
21 there an adjudication of the validity of that approach? If
22 you don't know, you can just say so.

23 THE WITNESS: As I said before, I'm just not
24 familiar enough with the details of the Sequoyah case to
25 sufficiently answer that. I do know that we interacted with

1 the ACRS, and that was a significant factor of the Staff's
2 position with respect to adopting the site-specific response
3 spectra approach. It was kind of a test-type case, I believe.
4 I don't know the current status of that Sequoyah matter.

5 MR. DECKER: Off the record.

6 (Discussion off the record.)

7 CHAIRMAN BECHHOEFER: Back on the record.

8 Q (By Mr. Miller) Mr. Hood, would you turn to
9 page 8 of your testimony?

10 As I understand it, you sponsored the first
11 three paragraphs of that testimony over to the carryover
12 paragraph on page 9, is that correct?

13 A To but not including that paragraph, yes.

14 Q To but not including which paragraph, sir?

15 A The paragraph that begins with "The fifth
16 document." I'm not sponsoring that or anything after that.

17 Q Now, then, Mr. Gallagher's conclusion which he
18 stated in his testimony, and which he expanded on in cross-
19 examination, was that there was poor cooperation with respect
20 to the compaction equipment. Would you agree that there was
21 proper cooperation with respect to the other four documents
22 that are identified in the portion of the testimony which
23 you sponsored?

24 A Yes, I would.

25 Q I'd like you to turn to page 12, and I'd like

1 to call your attention to, first, the examples that you
2 describe in the last paragraph on that page with respect to
3 the lack of appreciation or support of staff review
4 necessities, and a tendency to push ahead despite the lack
5 of proper assurance.

6 The first example is to place and remove the
7 surcharge from the diesel generator building without first
8 providing an adequate response to 50.54(f) Request 4.

9 Mr. Hood, do you know when Request 4 was first
10 tendered to Consumers Power Company?

11 A. In March of 1979.

12 Q. Mr. Hood, do you know when the Applicant began
13 placing the surcharge on the diesel generator building?

14 A. If I recall, that activity got underway in
15 January of '79.

16 Q. It preceded the Staff's request, did it not?

17 A. Yes, it did.

18 Q. All right. Now, then, it could not be, as a
19 matter of logic, that the Company placed the surcharge without
20 first providing an adequate response to Request 4, when they
21 hadn't received Request 4 when the surcharge was first put
22 into place, isn't that right?

23 A. To my mind, the question is probing information
24 which, if at all, would have been intimated up front, and
25 it's asking, admittedly after the fact, what decision did you

1 make?

2 MR. MILLER: Excuse me. Mr. Chairman, my
3 question to Mr. Hood was really quite straightforward, and
4 I'd like a yes or no answer, and then Mr. Hood can explain it
5 as he wishes.

6 I would like the reporter to read it back,
7 please.

8 (The reporter read from the record, as
9 requested.)

10 THE WITNESS: As a matter of logic, that is
11 correct.

12 Q (By Mr. Miller) Now, Attachment 11 to the
13 testimony is the notes of a meeting that was held on December
14 4, 1978.

15 CHAIRMAN BECHHOEFER: Pardon me. Attachment--

16 MR. MILLER: Eleven.

17 Q (Continuing) Do you recall how much time was
18 spent in the presentation of the proposed surcharge program
19 by the Applicant and its consultant, Dr. Peck, at that
20 meeting?

21 A Do I recall how much time was--

22 Q Was spent in presenting the surcharge program
23 at that meeting.

24 A I know it was a sizable amount of time.

25 Q And, in fact, Enclosure 1 to Attachment 11

1 indicates that there were two individual from the Geosciences
2 Branch of NRR, Mr. Gillen and Mr. Hiller--which is misspelled
3 there; it's actually Mr. Heller, is it not?

4 A. That's correct.

5 Q. And did the Staff or representative of the Staff
6 at that meeting on December 4 say to Consumers Power Company,
7 "Don't do it; don't put the surcharge on"?

8 A. No.

9 Q. Did anyone from the Staff say, "It's going to
10 make our job a lot tougher; wait until we formulate furthe:
11 questions for you"?

12 A. No.

13 Q. In fact, what you said is reflected in the last
14 paragraph on page 7 of Attachment 11. Mrs. Stamiris read it
15 into the record before. It's "The proposed solution is at
16 the risk of the Applicant." Is that correct?

17 A. That's correct.

18 Q. All right. Now, when you say "risk," do you mean
19 at its financial risk?

20 A. In part.

21 Q. In part. And the other part is that the NRC
22 Staff would ultimately be unable to conclude that the remedial
23 action that had been taken met regulatory requirements,
24 including the ultimate requirement that it be consistent with
25 the protection of the public health and safety; isn't that

1 right?

2 A That's part of it also, yes.

3 Q All right. Those are two parts.

4 Is there another part?

5 A The outcome is at your own risk, meaning the
6 achievement of the successful end product is at your own risk.

7 Q That's always true with respect to any action
8 that an applicant for an operating license takes, though,
9 with respect to changes in the facility or, indeed, the
10 construction of the facility itself?

11 A Yes. The thrust of my comment is directed to
12 trying to minimize the assurance of that outcome by obtaining
13 up-front assurances. In other words, we are unable at that
14 point in time to evaluate information that gives us reasonable
15 assurance about the outcome, because the approach is such that
16 you will develop that from the very behavior of doing it. The
17 information acquired by doing it is giving you that data.
18 It's not something that you're acquiring up front.

19 Q Well, let me ask this question, Mr. Hood.

20 In effect, the preload program is an example
21 of the observational method, is it not? Is that what we're
22 talking about?

23 A Yes, it is.

24 Q Okay. And another way of characterizing the
25 preload program is that it's a proof test, isn't that correct?

1 A. I suppose you could think of it that way, Mr.
2 Miller. I tend to draw a slight distinction between the two,
3 myself.

4 Q. Well, what is the distinction, sir?

5 A. Proof tests merely demonstrate something. I
6 think the remedial action also might tend to-- The corrective
7 aspect, by doing it you are also achieving remediation, the
8 compaction of the material in place, if you will.

9 Q. Would you also agree, Mr. Hood, that by
10 observation after the surcharge has been removed, you would be
11 tell whether or not the surcharge was successful in
12 effectuating the remedial action that you had to take?

13 A. Yes, sir. At that point.

end 4

14 (Continued on following page.)
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K5L1

1 Q (By Mr. Miller) And as each day passes and
2 more data is accumulated on what the settlement behavior of
3 the structure has been following the removal of the surcharge,
4 you get more information about the success or failure of the
5 surcharge program, do you not?

6 A Correct.

7 Q Now, at this December 4th, 19-- Well, let
8 me back up just a second.

9 The important question with respect to the
10 diesel generator building--and forgive me for the oversimplifi-
11 cation--is that over the 40-year life of this power plant, it
12 will be able to perform its intended function when called
13 upon, so that there will be no compromise to the public health
14 and safety; isn't that right?

15 A That's correct.

16 Q And that's what the Staff is concerned about
17 assuring, and that's what Consumers Power Company is trying
18 to achieve in the overall design and construction of the
19 plant, and specifically with respect to the remedial work on
20 the diesel generator building, isn't that right?

21 A Yes.

22 Q Now, you talked about establishing a criteria
23 in advance. One of the matters of concern with respect to the
24 diesel generator building as a result of the poor soils compac-
25 tion was excessive settlement, isn't that correct?

1 A Yes.

2 Q And again, to oversimplify, perhaps, concern
3 was that excessive settlement might impair the ability of
4 the diesel generator building to perform its intended function?

5 A Yes; undue stresses to the structure.

6 Q It is a fact, is it not, that at this December
7 4th, 1978 meeting, you had a prediction in advance of the
8 preload program of what the range of expected settlement
9 as a result of the surcharge program might be, did you not?

10 MS. BROWN: I'm going to object. I thought we
11 were not actually going to go into the diesel generator
12 settlement problem in detail until August, or perhaps later
13 sessions of the hearing. It seems Mr. Hood is not really
14 the expert witness on the diesel generator building settlement--

15 MR. MILLER: Well, if I might just respond.

16 MS. BROWN: --problem.

17 MR. MILLER: Excuse me.

18 MS. BROWN: I'm finished.

19 MR. MILLER: If I may respond, Mr. Hood both
20 in his prepared testimony and at some length yesterday in
21 response to questions from Ms. Stamiris talks about examples
22 of the inability to make meaningful progress in this matter,
23 and the lack of appreciation or support of Staff review
24 necessities. As the first example he talks about the decision
25 to place the surcharge on the diesel generator building.

J5L3

1 I am not going to delve deeply into the technical
2 necessities of the surcharge program, but I feel it is fair
3 to me to be able to explore with Mr. Hood the basis for that
4 statement, and also to attempt to demonstrate that there is
5 probative evidence that is contrary to his prepared testimony
6 and responses he gave yesterday.

7 That's what I'm attempting to do.

8 CHAIRMAN BECHHOEFER: As for the question that
9 was asked, we will overrule the objection. We don't want to
10 get too deeply into the technical justification--

11 MR. MILLER: Okay.

12 CHAIRMAN BECHHOEFER: --of the preload program
13 because I do think we will take that up in much greater detail.

14 MR. MILLER: I'm sure we will, and I don't
15 intend, as I say, to get into the technical details with this
16 witness.

17 Q (By Mr. Miller) Now, with all that, Mr. Hood,
18 do you have the question in mind?

19 A Yes, I do. I'm not sure if I'm correct that
20 what we did receive was a prediction, and I'm having a little
21 difficulty with your question. What we had was a statement by
22 Dr. Peck made at the meeting that he would not be surprised
23 if settlement in the range between six to 18 inches, as I
24 recall, were to occur. I believe it was probably intended as a
25 prediction.

K5L4

1 Q Okay. Now, as you used the term "acceptance
2 criteria"--and I believe you testified to that yesterday--
3 would an estimate of future settlement be a form of acceptance
4 criteria by which the Staff could judge the efficacy, if you
5 will, of a proposed remedial measure?

6 A It would be one of the criteria that we would
7 be looking for. I believe rate might be another.

8 Q Okay.

9 CHAIRMAN BECHHOEFER: Let me ask you one further
10 question. In terms of acceptance criteria, would the Staff
11 need some elaboration or foundation to acquire a prediction,
12 or why a prediction adds a basis for it? I mean would the
13 Staff need to know why, what the basis for the prediction
14 was--

15 THE WITNESS: Yes, sir, we would.

16 CHAIRMAN BECHHOEFER: --to regard it as
17 acceptance criteria?

18 THE WITNESS: We would need more than just the
19 criteria. We would need the information behind the criteria,
20 to allow us to provide judgment on the suitability of the
21 criteria.

22 CHAIRMAN BECHHOEFER: So it wouldn't be enough
23 just to say, "I predict that it will settle however many
24 inches"?

25 THE WITNESS: Yes, sir. We would need the

K5L5

1 information that would allow us to satisfy ourselves that
2 that's a reasonable prediction independently of that criteria.
3 To perform an independent assessment of that criteria, is what
4 I intended to say.

5 Q (By Mr. Miller) Well, do you recall at the
6 December 4th meeting Dr. Peck discussing with the Staff his
7 experience with preload of structures in the past, and what
8 the results had been?

9 A I know Dr. Peck has on several occasions discussed
10 his experience with other structures that's involved with the
11 preloading activities. I don't recall at this particular
12 meeting that point was made.

13 Q Now, your prepared testimony goes on to say
14 that one of the examples was to place and remove the surcharge
15 without providing an adequate response to 50.54(f) Request 4.

16 We have established that 50.54(f) was first
17 issued in March of 1979. Do you know when the surcharge was
18 removed from the diesel generator building?

19 A I believe it was removed at the end of August
20 of that same year.

21 Q All right, sir. Now, then, do you recall--

22 A I believe that was the point at which the removal
23 had been completed. I believe they actually started removal
24 about 15 days prior to that.

25 Q Do you recall that there was a meeting in Bethesda

1 on July 16, 1979, between the NRC Staff, representatives of
2 Consumers Power Company, Bechtel and the consultants?

3 A Yes, I do.

4 Q Do you recall that the various aspects of the
5 remedial work that were either then underway or planned were
6 discussed?

7 A Yes.

8 Q Again, was this a fairly lengthy meeting?

9 A Yes, it was.

10 Q All right. Do you know a man named James
11 Knight?

12 A Yes, sir.

13 Q Okay. Who is Mr. Knight, for the record?

14 A Mr. Knight works for Mr. Bramer who was the
15 Director of the Division of Engineering. I believe Mr. Knight's
16 title is Assistant Director of Components and Structures and
17 Systems. I forget the exact title.

18 Q Would you just describe for us briefly what
19 his responsibility is in connection with an evaluation of the
20 remedial work that is taken or planned by Consumers Power at
21 Midland?

22 A He has under him the responsibility for the
23 major disciplines involved in the decision, so I would say he
24 is the official that is the responsible official for pulling
25 together the positions of those Staff resources involved in that

1 decision.

2 Q Now, at this July meeting was there discussion
3 with respect to the surcharge in the diesel generator building?

4 A Yes, there was.

5 Q And the surcharge was in fact in place at that
6 point in time?

7 A Yes, was.

8 Q At the meeting, was there any discussion with
9 respect to the timing of its removal?

10 A As I recall the discussion, yes, sir, I believe
11 there was, and perhaps not in a direct sense in terms of a
12 specific date. I think there was, as I recall, a status report
13 on what was learned thus far, and on the basis of that,
14 there may have been some projection.

15 Q Now, at that meeting do you recall any repre-
16 sentative of the Staff saying to Consumers Power Company,
17 "The surcharge has not been in place long enough; don't remove
18 it"?

19 MS. STAMIRIS: I object to that question on the
20 ground that I don't know what relevance someone else's statement
21 has to do with Mr. Hood's testimony as to whether or not he
22 felt assured about the timing of the removal of the surcharge.
23 This is his personal testimony, and I believe he meant this
24 to give the examples that he had in mind when he made the state-
25 ment that he did, or some other examples that supported this,

K5L8

1 and I don't believe, for the reasons I have stated, that
2 your line of questioning is relevant to his testimony.

3 Q (By Mr. Miller) I will amend the question
4 slightly to ask whether Mr. Hood or any other member of the
5 Staff asked the Applicant not to remove the surcharge at the
6 July 16, 1979 meeting.

7 A No, Mr. Miller, I would be surprised by such a
8 statement from the Staff, in fact, because I don't think the
9 Staff is in a position to say yes or no at that point.

10 Q Well, did the Staff say, "We haven't received
11 an adequate response to your Question 4. Until you respond
12 to that, don't do anything further with respect to remedial
13 work on the diesel generator building", or words to that
14 effect?

15 A No, sir, no such statement like that was made.

16 Q In fact, Mr. Knight, who was present at that
17 meeting, said, did he not, that the technical solutions
18 appeared to be adequate?

19 MS. STAMIRIS: I'm wondering if my objection
20 has been ruled on, or if-- You know, I do believe this is a
21 proper--

22 CHAIRMAN BECHHOEFER: Well, the question was
23 changed, and therefore I--

24 MS. STAMIRIS: I raise it again because I believe
25 that the same--for the same reasons I raised it to this particular

K5L9

1 question.

2 CHAIRMAN BECHHOEFER: Mr. Hood, you were at that
3 meeting?

4 THE WITNESS: Yes, sir.

5 CHAIRMAN BECHHOEFER: The objection is overruled
6 because Mr. Hood was there.

7 A I don't believe, based on my recollection,
8 such a statement was made by Mr. Knight. The statement I
9 recall Mr. Knight making was he made reference to the positive
10 aspects of the fixes, and what he had in mind was the fact that
11 we had heard the plans for remedial actions not only for the
12 diesel generator building, a status report on that one, but
13 the plans for the other structures involved.

14 Mr. Knight felt that the information that had
15 been conveyed at the meeting was quite significant to the
16 process, and was quite anxious to have the Applicant document
17 the information that we had heard at the meeting.

18 Q And that was done within 30 days of that meeting,
19 was it not?

20 A Yes. The Applicant responded in a letter
21 dated August 10th. That letter is--

22 CHAIRMAN BECHHOEFER: Let me clarify. The
23 letter dated August 10th, that was received by the Staff when,
24 August 12th, August 13th?

25 THE WITNESS: I don't recall our exact receipt

K5L10

1 date, but I would say we probably received it certainly within
2 two weeks after that, on the basis of normal performance.

3 CHAIRMAN BECHHOEFER: What I'm trying to determine
4 is didn't you say before that the surcharge was--the beginning
5 of the removal took place right around August 15th?

6 THE WITNESS: Yes.

7 CHAIRMAN BECHHOEFER: I just wanted to get those
8 dates straight. Thank you.

9 Q (By Mr. Miller) Mr. Hood, you took some notes
10 of a meeting that took place on August 24, 1979, did you not,
11 in which the following statement appears: "Mr. Knight reported
12 that the principal technical solutions proposed by the Applicant
13 for the major structures appear to be basically sound, such
14 that properly implemented, they can be expected to provide
15 for adequate structural foundation support"?

16 A Yes, I did take such notes, and let me explain,
17 I answered the prior question in the context of the June 18th
18 meeting. I understood the question to be had Mr. Knight, at
19 the July 18th meeting, made such a statement.

20 Q You are quite right, and that was my question,
21 and you answered that. I'm now up to August 24, 1979.

22 A Yes. I believe that there was an internal
23 meeting that you just read about.

24 Q Yes, sir.

25 A Yes. I would say the message conveyed by Mr.

K5L11

1 Knight, I believe, involved my management.

2 Q Your management. To whom was he reporting,
3 sir, do you recall?

4 A As I sit here, and without reference to those
5 notes, I'm having difficulty recalling if it was higher than
6 the assistant director--possibly higher. I just don't recall.

7 Q Let me see if I can't get the document out and
8 refresh your recollection.

9 CHAIRMAN BECHHOEFER: Would it be useful to
10 take a break around now?

11 MR. MILLER: That will be fine, although it
12 will just take a minute, so we could press on.

13 CHAIRMAN BECHHOEFER: It is getting late anyway.
14 Let's break for 15 minutes.

15 (Recess.)

16 CHAIRMAN BECHHOEFER: Back on the record.

17 (Consumers Exhibit No. 7 was
18 marked for identification.)

19 Q (By Mr. Miller) Mr. Hood, I'd like to show you
20 a document marked as Consumers Power Exhibit 7 for identifica-
21 tion. I do not have any copies other than the one that I'm
22 holding in my hand. It is a memorandum to the file from you,
23 dated August 24, 1979. The subject is "Internal Meeting
24 on Status of Midland Soils Settlement."

25 Before the break, you and I were discussing some

K5L12

1 words that you wrote at a meeting that was held on that
2 date, and I ask you whether Consumers Power Exhibit 7 for identifi
3 cation is the notes that we were discussing?

4 A Yes, they are.

5 Q All right. Would you turn to the last page
6 of that exhibit, sir? Does that have a list of attendees on
7 it?

8 A Yes, it does.

9 Q Would you just describe briefly for the record
10 the positions of each of the individuals that are shown on the
11 last page of Exhibit 7 for identification, as of that date,
12 that is, August 1979?

13 CHAIRMAN BECHHOEFER: Pardon me. Is this the
14 meeting of August 24 or July 16th?

15 MR. MILLER: August 24.

16 A In some of the cases, Mr. Miller, I will have a
17 little difficulty with some of the individuals shown, as to
18 their prior position versus the current position. I will try
19 to distinguish at least one or the other, and indicate which.

20 Mr. Jim Knight is the Assistant Director of
21 Systems, Components and Structures within the Division of
22 Engineering. That is his existing position. He was in a
23 somewhat similar capacity, and I don't remember what the exact
24 title was he carried at that time under the prior organization
25 that was-- I believe the scope of his responsibilities is

K5L13

1 somewhat broader at this point than it was at that time.

2 - Mr. Don Skovholt is associated with the quality
3 assurance responsibilities, and he holds a management position
4 in that regard, quality assurance and other responsibilities.

5 Mr. Walt Haass is the branch chief of the
6 quality assurance branch. He is now and I believe was at that
7 time. I'm not absolutely certain.

8 Mr. Dominic Vessallo at that time, I believe,
9 was the assistant director and project manager.

10 Mr. Steve Varga at that time was the branch
11 chief of the licensing branch 4, of which I was a part.

12 CHAIRMAN BECHHOEFER: Steve who?

13 THE WITNESS: Excuse me a moment. We have had
14 so many organizations, I'm not sure what the status was at that
15 particular point in time. I see Mr. Rubenstein listed also,
16 who at one time or another has also been my branch chief,
17 and I believe at that particular point in time it was he that
18 was the branch chief, and Mr. Steve Varga at that point had
19 been elevated to a higher position in the project management
20 organization.

21 I don't believe the thrust of your question
22 is so much what they were at that time, but what these
23 individuals were associated with.

24 Q (By Mr. Miller) That's correct.

25 A Mr. Harry Thornburg is the--we have previously

K5L14

1 discussed. He is a--suffice it to say he is a high official
2 in the headquarters aspect of Region III--excuse me--of our
3 Office of Inspection and Enforcement.

4 Mr. Robert Shewmaker is under Mr. Thornburg,
5 so too he is removed, but also in the Office of Inspection
6 and Enforcement Headquarters.

7 Mr. Backman--I'm not sure if he was with
8 OELD or the Office of Inspection and Enforcement. I'm sorry.
9 I don't recall at this time. I believe he is with OELD.

10 CHAIRMAN BECHHOEFER: How do you spell that?

11 THE WITNESS: It is spelled B-a-c-k-m-a-n.
12 It may be a misspelling. I think-- I have a recollection
13 that his name is Bachman as opposed to Backman, as it is
14 spelled here. Richard Bachman, I believe, is the intended
15 name. I'm not sure of that.

16 Mr. William Olmstead at that point in time was
17 our case lawyer for the Midland project.

18 Richard Lieberman, again he is either with
19 I and E or OELD. I believe the latter. No, he is with Murray's
20 group.

21 John Gilray is--may be a witness in this
22 hearing--is the reviewer in the quality assurance branch
23 assigned to this soils settlement matter of Midland; and Jack
24 Spraul is also in that same branch.

25 MR. MILLER: Thank you, Mr. Hood. Let me take

K5L15

1 the document from you.

2 Mr. Chairman, I'd like to ask that Consumers
3 Power Exhibit 7 for identification be received into evidence
4 as Consumers' Power Exhibit 7. This is our only copy presently.

5 CHAIRMAN BECHHOEFER: Can you get appropriate
6 copies to the reporter and the other parties?

7 MR. MILLER: Yes. We will do so. Maybe I
8 should just take this one for the time being, and we will try
9 and get it done promptly.

10 CHAIRMAN BECHHOEFER: Are there any objections?

11 MS. BROWN: No objection.

12 THE WITNESS: In reference to the prior ques-
13 tion, my memory being refreshed by the term "my management",
14 when I say "my management" it refers to Dominic Vasallo, Steve
15 Varga and Les Rubenstein.

16 Q (By Mr. Miller) Okay. Now, Mr. Hood, I'd
17 like to jump ahead a few months.

18 CHAIRMAN BECHHOEFER: Wait a minute. Were
19 there any objections to that, because I was going to admit
20 it without objection.

21 Without objection, that will be admitted. I
22 take it we will get appropriate copies.

23 MR. MILLER: Yes, sir.
24
25

K5L16

1 (The document referred to,
2 previously marked for identifica-
3 tion as Consumers Power Exhibit
4 No. 7, was received in evidence.)

5 CHAIRMAN BECHHOEFER: I did have one question.
6 Are any of those people--I don't think they are--are any of
7 those people NRR people or not?

8 THE WITNESS: Yes, sir.

9 CHAIRMAN BECHHOEFER: So which ones?

10 THE WITNESS: May I have the document again,
11 please?

12 Mr. Jim Knight, Mr. Skovholt, Mr. Haass, Mr.
13 Vassallo, Mr. Varga, Mr. Rubenstein, myself, Mr. Gilray,
14 Mr. Spraul. Possibly some of the others. I have indicated
15 some that I don't know the exact position, and some--

16 CHAIRMAN BECHHOEFER: Correct. I wasn't sure
17 what the QA branch referred to. That is a QA branch of NRR?

18 THE WITNESS: Yes, of the quality assurance
19 branch. It is part of NRR.

20 Q (By Mr. Miller) Mr. Hood, do you recall any
21 discussion at that meeting that Consumers Power Company had
22 removed the surcharge for the diesel generator building without
23 first providing an adequate response to Question 4 of 50.54(f)?

24 A No, sir, I don't, as I said here, recall any
25 discussion of that item at this meeting.

K5L17

1 Q I'd like to jump ahead a few months in the
2 chronology to the last part of November, 1979.

3 Do you recall a meeting which took place on
4 November 28, 1979, which you attended with the following
5 named individuals: Mr. Olmstead, Mr. Murray, Mr. Lieberman, Mr.
6 Brockett, Mr. Shewmaker, Mr. Spraul, Mr. Thornburg, Mr.
7 Norelius, Mr. Fiorelli, Mr. Knapp, Mr. Keppler and Mr.
8 Rinaldi?

9 A Yes, sir, I did attend such a meeting.

10 Q And was the subject matter at that meeting the
11 Midland power plant?

12 A Yes, it was.

13 Q And among the topics discussed at that meeting
14 was the question of the adequacy of the remedial work, was
15 it not?

16 A Yes.

17 Q And at that meeting you said, did you not,
18 that "The proposed fixes are such that if they are implemented
19 properly, they should be adequate. NRR's problem is the
20 QA on fixes, a question of how close they are to the bottom
21 line of acceptance criteria"?

22 A Yes, I believe I did make such a statement,
23 and in order to try to draw a contrast between quality assur-
24 ance concerns to the reviewer as opposed to the unresolved
25 safety issues.

K5L18

1 Q Of course, at that time the diesel generator
2 building preload had been off for about two and a half months,
3 is that correct?

4 A That's correct.

5 Q Do you recall any discussion at that meeting
6 that the diesel generator building surcharge had been removed
7 without first providing an adequate response to 50.54(f)
8 Question 4?

9 MS. STAMIRIS: I object. I just wonder if
10 this line of questioning is intended to re-establish the fact
11 that there was an inconsistency in the statement in his
12 testimony regarding the date of Request 4 and the statement
13 he made about the diesel generator building surcharge, because
14 I thought that that had already been established that indeed
15 it was an inconsistency.

16 MP. MILLER: I think that I'm attempting to
17 show--and I really am almost finished with this line of examina-
18 tion--that at the time these events were taking place, there
19 was no suggestion by the regulatory staff that the Company
20 was proceeding in a manner that did not meet regulatory require-
21 ments as is stated in Mr. Hood's prepared testimony.

22 That's the purpose of the examination.

23 CHAIRMAN BECHHOEFER: I think we will overrule
24 the objection. The statements in direct testimony may be
25 explored.

K5L19

1 Q (By Mr. Miller) Mr. Flood--

2 A You have a question before me.

3 Q No, there is no question before you at the
4 moment, I don't believe.

5 A I beg to differ.

6 CHAIRMAN BECHHOEFER: Well, I overruled the
7 objection.

8 MR. MILLER: I'm sorry. I guess there is. I
9 beg your pardon.

10 CHAIRMAN BECHHOEFER: You may answer.

11 A I don't recall specifically if that point was
12 made in that particular meeting. I do recall generally I
13 expressed some dissatisfaction with the nature of the review
14 and where we were at that point in time. I believe the point
15 I was making is that the information that we were needing
16 in order to make judgments was not available to us.

17 Q But there were many more remedial actions
18 proposed at that point in time than simply an evaluation of
19 the results of the preload program, were there not, involving
20 the surface water--

21 A At one time there were clearly other structures
22 involved for remediation, yes.

23 Q And in fact, on November 19, 1979, another
24 increment of 50.54(f) questions had been sent out by the Staff
25 to Consumers Power Company?

K5L20

1 A Correct.

2 Q Now, Mr. Hood, going back to your testimony
3 on Page 12, in the indented paragraph there it says, "A
4 big contributor to the inability to make meaningful progress
5 in this matter is the quality of responses gotten. We have
6 set some kind of record on the number of questions re-asked,
7 which speaks poorly for CPCo-NRR interface."

8 First of all, Mr. Hood, in those two sentences
9 did you mean to imply that the poor quality of the CPCo-NRR
10 interface was solely the fault of Consumers Power Company?

11 A You say solely the fault. Oh, no, I wouldn't
12 say it was solely the fault of Consumers Power Company.

13 Q It is a fact, is it not, Mr. Hood, that during
14 the time period we have generally been discussing, certainly
15 after March of 1979 until the end of 1979, the Staff itself
16 had problems in allocating resources to the matters other
17 than resolution of events arising from the Three Mile Island
18 accident, isn't that right?

19 A I believe that's a statement that's well docu-
20 mented.

21 Q So the answer to my question is yes?

22 A Yes, it is.

23 Q Okay. And the Staff review effort with respect
24 to Midland really was carried on at a much lower level than
25 might otherwise have occurred had the TMI accident not taken

K5L21

1 place?

2 A No, sir, I can't say that because of our resource
3 difficulties following Three Mile Island, that the review
4 that continued was at a lower level. The review continued
5 at the same level that it would otherwise have, in my opinion.
6 If you are referring to an organizational level--

7 Q No, sir, I didn't mean that. I beg your pardon.

8 A I'm sorry.

9 Q At a lower-- There were less man hours applied
10 to the Midland review than might otherwise have been the case
11 had the TMI accident--

12 A I don't think I can say that either. I might
13 agree with you that perhaps some of the timing of events might
14 have been affected. I don't think I can say that the level of
15 effort was any less than would have been the case otherwise.

16 (Continued on next page.)

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1 Q I don't mean to imply that people weren't being
2 conscientious while they were working on the Midland project,
3 but let me just follow up by asking the question: You say
4 the timing would have been affected; that is, people would
5 have been able to turn their attention to Midland rather than
6 being involved in other projects and, therefore, it would
7 have been resolved more quickly?

8 A I believe that's a fair statement, that events
9 might have happened in a more timely fashion had we had better
10 resources.

11 Q And in fact, you'd agree, would you not, that
12 later on, in October of '79, there was insufficient review
13 attention being given to resolution of the soil settlement
14 issue by the NRC Staff?

15 A What was that date again?

16 Q October of '79.

17 A No, sir, I don't think I would agree that there
18 was insufficient review attention. I may have some dissatis-
19 faction with what I would like to have had happen at that
20 point, but that does not translate to the position that the
21 review that did occur was insufficient.

22 Q Mr. Hood, let me see if I can refresh your
23 recollection, then..

24 You were deposed by Mr. Zamarin in connection
25 with this matter on, among other days, October 8, 1980, were

1 you not?

2 A I believe that's correct.

3 MR. MILLER: Mr. Paton, this is found at pages
4 174 and 175 of the deposition transcript.

5 MR. PATON: Thank you.

6 Q (By Mr. Miller) Were you asked these questions,
7 and did you give these answers at page 174, line 11:

8 "In paragraph 3 of Exhibit 7 he states that,
9 'Since the Corps had been contracted'--he said
10 contacted by NER--'to review the issues on October,
11 '79, no progress has been made regarding a technical
12 review.' Do you agree or disagree with that statement
13 as of January, 1980?

14 "A May I see the comment, please?

15 "Q Yes.

16 "A You're referring to subparagraph 3?

17 "Q Yes, number 3.

18 "A My recollection of this is, at the point
19 in time our efforts were directed to the establishment
20 of an acceptable contract with the Corps of Engineers,
21 and it was at a later point in time that that effort
22 was consummated. Nevertheless, there were certain
23 activities going on in anticipation of the final
24 signing of the contract. I would have to disagree
25 with the literal interpretation of the passage where

1 it says 'no progress has been made.' Again, I
2 believe the intent of the passage is to say that
3 insufficient progress has been made with regard to
4 the actual performance and technical review.

5 "Q Do you agree, then, that insufficient
6 progress was being made with regard to the technical
7 review?

8 "A. Yes. At that point in time, there was
9 insufficient review attention being given to the
10 matter."

11 A. The words, "insufficient progress" refreshes
12 my recollection, and I believe are consistent with my answer
13 that I'm not satisfied with the rate of progress that is
14 occurring.

15 Q My question to you is a very simple one, Mr.
16 Hood. Look at the deposition transcript, if you wish. It
17 really was whether or not your recollection is now refreshed
18 that, on October 8, 1980, you answered the question that is
19 found at line 7 of page 175, as follows:

20 "Yes, at that point in time, there was
21 insufficient review attention being given to the
22 matter."

23 A. You're correct. That's what it says.

24 Q Thank you. Now, there's a reference in the
25 passage that I just read, to the Corps of Engineers. The Corps

1 of Engineers became a consultant to the NRC Staff with respect
2 to soil settlement issues at some point in time, did it not?

3 A. Yes, it did.

4 Q. Okay. And that was in late 1979?

5 A. Yes.

6 Q. Prior to the time that the Corps of Engineers
7 was taken on as a consultant by the Staff in connection with
8 this matter, had the Corps of Engineers had any exposure to
9 the soil settlement issue at the Midland site, as far as you
10 know?

11 A. Mr. Miller, I don't know exactly when the
12 contract with the Corps was completed. There was a period of
13 time when we were supplying information to the Corps as
14 though it had been completed. So I have some difficulty with
15 the exact point in time in that regard.

16 Q. In any event-- I'm sorry, I didn't mean to cut
17 you off.

18 A. (Continuing) One of the earlier interactions
19 I recall with the Corps was a meeting at the site, which was
20 held for the purpose of, if you will, bringing the Corps up
21 to speed. That consisted of a review of the pertinent
22 background to date.

23 Q. Can we agree that that took place in February
24 of 1980?

25 A. Yes, we can.

1 Q And did you say this was to bring the Corps
2 up to speed? In short, to educate them as to the issues with
3 which they would be asked to assist the NRC? Is that right?

4 A Yes.

5 Q Would you agree that it took the Corps a
6 period of time in order to become familiar with the issues
7 in connection with soil settlelent at the Midland site?

8 A Yes.

9 Q And by the time they had become familiar, it
10 had been some eighteen months or so since this settlement was
11 first reported to the NRC?

12 A Yes.

13 Q And it's also a fact, is it not, that having
14 the Corps come in at some later point in time was, itself,
15 a reason for having to re-ask certain questions, was it not?

16 A No, sir, I don't think I would agree with that.
17 I should explain that we always had a technical review
18 coordinator with the Corps. In that process, the individual
19 or his predecessor was the principal reviewer for that. I
20 believe that technical review coordinator later on, when the
21 Corps came on board, served to assure that information that
22 we already had asked for and which was on the record, was not
23 repeated. And I believe I, in my role as project manager,
24 also endeavored to assure that that was the case.

25 Q Well, when you are talking about, in your

1 prepared testimony, the number of questions re-asked, are
2 you simply referring to formal 50.54(f) questions, or simply
3 having to repeat, in informal discussions with the Applicant,
4 requests for information, and so on?

5 A. The principal focus of that statement is, in
6 the earlier stages of the operating license review, I believe
7 I've already explained the--and it's not limited to soil
8 settlement--beginning with the, what we call Q-1--I believe
9 I explained all this yesterday in response to a question from
10 Ms. Stamiris--

11 MR. MILLER: Well, on the basis, Mr. Chairman,
12 of Mr. Hood's last answer, I would ask that this indented
13 portion of his prepared testimony at page 12 be stricken from
14 the record.

15 MS. BROWN: That is what was contained in Mrs.
16 Stamiris' contention.

17 MS. STAMIRIS: And I might add that--

18 MS. BROWN: That's why it was put in there,
19 because we were trying to respond to the excerpt that the
20 had provided in her contention.

21 MR. MILLER: Let me understand, Mr. Hood, then.

22 MS. STAMIRIS: I just war to object on the
23 ground that I did ask whether or not-- I did ascertain whether
24 or not Mr. Hood believed that this was an accurate reproduction
25 of his statement. There's no question about that.

1 MR. MILLER: I'll withdraw my motion for the
2 moment.

3 Q (By Mr. Miller) The reference in the indented
4 paragraph, then, was not to anything in connection with the
5 soil settlement issues?

6 A No, sir, that's not correct. There are several
7 statements in the indented paragraph. Some of those statements
8 go beyond just soil settlement matters.

9 Q Well, do I understand, then, that it is only
10 the sentence in the indented paragraph, that begins with
11 the words, "the bottom line" that is then addressed in the
12 paragraph that follows, on page 12 in your prepared testimony?

13 A I don't understand your question about the
14 bottom-line statement.

15 Q Does the "bottom-line" statement refer to soil
16 settlement issues, or generally to the operating license
17 review?

18 A I believe it's both. I would say that there's
19 more impetus in the latter statement with regards to bottom
20 line on soil settlement matters, than there is on the prior
21 portion of that statement, which, although soil settlement is
22 not excluded, the statement is primarily drawn from experience
23 on the overall FSAR review.

24 Q Now, you mentioned in a previous answer that the
25 technical reviewer for the Staff on certain aspects of the

1 soil settlement issue, the geotechnical portion, was
2 replaced.

3 when did that take place, sir?

4 A. Are you referring to the replacement that's
5 occurring because the consultant is coming on board, or are
6 you saying that the reviewer changed from Dan Gillen to Joe
7 Kane?

8 Q. Yes, sir, that's what I was referring to.

9 A. That occurred about the same time that the
10 Corps of Engineers was coming on board, which was, as I
11 recall, generally in late 1979.

12 Q. And there was a period during which Mr. Kane
13 had to educate himself with respect to the issues involved
14 with the soil settlement matter, is that right?

15 A. That's correct.

16 Q. Now, earlier this morning, Mr. Hood, you were
17 asked about the remove and replacement option being more
18 conservative. Do you recall that?

19 A. Yes, I believe I explained the sense in which
20 I considered that to be the case.

21 Q. Yes, sir. Just so we understand what we're
22 talking about, that would have involved removal of the diesel
23 generator building, excavation of the questionable fill mater-
24 ial, replacing it with new fill material in accordance with
25 the specifications, and then construction again of the diesel

1 general building, is that correct?

2 A. Yes, sir.

3 Q. And during the course of that process, there
4 would have been soil borings and other tests of the soil as
5 necessary to determine that the new fill was in accordance
6 with the specifications, isn't that right?

7 A. Yes, sir, that's part of the process.

8 Q. In terms of precluding options, would you agree
9 that the remove-and-replace option, if adopted, precludes
10 the preload option?

11 A. Let me see if I've got that straight.

12 Q. Once you take the building down, you can't
13 preload it, can you?

14 A. It would be pointless to preload it, yes, sir.

15 Q. The reverse is not true, however?

16 A. That's correct. The remove-and-replace option
17 remains.

18 Q. Now, It's your opinion, though, is it not, that
19 the preload would provide a more reliable prediction of
20 settlement than taking soil borings under the diesel generator
21 building?

22 A. I believe that, individuall I understand that
23 there are difficulties in taking borings getting a reliable
24 sample because of the comparability of t soils that we have
25 in this case. It's because of that, I do believe that the

1 preload is a more reliable prediction of settlement than the
2 technique that relies on borings.

3 Was that not the question?

4 MR. MILLER: I need the last few words of the
5 answer read back, because I missed them.

6 (The reporter read from the record, as
7 requested.)

8 MR. MILLER: Thank you very much.

9 THE WITNESS: That assumes, of course, one
10 option versus the other. I'm not sure that is the case that
11 we have here, but given the hypothetical that that were the
12 case, that you had to choose between one point or the other,
13 and not both as a combination, then I would say that in such
14 a case the preload might be the more reliable technique.

15 Q. (By Mr. Miller) All right. Now, your testimony
16 that we've been discussing, on page 12, is directed to the
17 overall contention, is it not, that these statements and
18 responses to the NRC regarding the soil settlement issues
19 reflect a less than complete and candid dedication to provid-
20 ing information relevant to health and safety standards, and
21 which you and I have been discussing this morning, has it
22 not, has been, in essence, a technical disagreement between
23 Consumers Power Company and the NRC Staff with respect to the
24 efficacy of the preload program. Is that right?

25 A. Could I have that back, please?

1 MR. MILLER: Let me repeat it, rather than ask
2 the reporter to read it back.

3 THE WITNESS: It was a little lengthy.

4 MR. MILLER: Let me break it down.

5 Q. (By Mr. Miller) Your testimony on page 12 is
6 directed, is it not, to the overall contention that Consumers
7 Power Company's statements and responses to NRC regarding
8 soil settlement issues, reflect a less than complete and
9 candid dedication to providing information, and so on; that
10 is correct, is it not?

11 A. Yes, sir, it is.

12 Q. All right. You and I have been discussing this
13 morning the preload of the diesel generator building. Would
14 you agree that it has been--the dispute has essentially been
15 one of a technical difference between the Staff and the
16 Company, with respect to the efficacy of the preload program?

17 A. I believe that's certainly an element of it,
18 Mr. Miller. I don't know if I could say it's primarily that,
19 because there is an element of timeliness that has been
20 discussed in this cross-examination, and that element as it
21 relates here is not so much about what event preceded what
22 request, as much as it is that the Staff was looking for
23 information at a particular point in time which, in its view,
24 should have been determined at that point and which it did not
25 acquire. I believe we had earlier references to Requests 4.

1 Q Yes, sir. I'd now like to move on to the
2 second example, found on page 12, which is the construction
3 of the borated water storage tanks without first performing
4 the analyses for variable foundation properties and cracks,
5 as discussed in the response to 50.54(f) Request No. 14.

6 First of all, Mr. Hood, I want to make certain
7 that I understand what you mean when you say "construction
8 of the borated water storage tanks."

9 A It's the steel portion of the tank. My
10 recollection is that the foundation was present when we were
11 trying to focus on the problem. As a matter of fact, it's
12 my recollection that there were some cracks, even at that
13 early stage, in the borated water storage tanks foundation--
14 the ring foundation--and the proposal was to perform a proof
15 test. That is, the tank itself was proposed to be constructed
16 and to be filled, and the subsequent settlement behavior
17 would be monitored. The intent was to demonstrate that the
18 foundation was adequate. So the statement refers to the steel
19 tank itself. As I recall, that's where we were at that point
20 in time.

21 Q Again, we can agree that the initial Question 14
22 was issued in March of 1979, is that correct?

23 A Yes.

24 Q And do you know when the construction of the
25 tanks began?

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A. No, sir. As I sit here now, I can't recall that, when the construction began.

(Continued on following page.)

end 6

1 CHAIRMAN BECHHOEFER: Just as a matter of
2 dates, there is a reference to a Request No. 4 and a Request
3 14. Are both of them March '79?

4 MR. MILLER: Yes, sir, I believe so.

5 THE WITNESS: Yes.

6 CHAIRMAN BECHHOEFER: I just want to make sure
7 that's right. Okay.

8 Q (By Mr. Miller) Do you recall that during
9 the summer of 1979 there was an investigation of the cracks
10 in the borated storage tank foundation ring?

11 A Are you referring to the first set of cracks,
12 the original cracks, or the cracks that occurred later after
13 the proof test was done?

14 Q Listen to my question, Mr. Hood. It was, do
15 you recall that during the summer of 1979 there was an investiga-
16 tion of the cracks as they then existed in the borated water
17 storage tank foundation ring?

18 A Yes, I have recollection of the investigation of
19 cracks about that time.

20 Q And do you recall that the conclusion of that
21 investigation was that the cracks are localized, and their
22 widths do not exceed two-hundredths of an inch?

23 A I believe that was the conclusion that was
24 drawn.

25 Q And do you recall that there was a crack
map provided by Consumers Power Company of the borated water

1 storage tank foundation ring at about that time?

2 A Yes, sir. Each one of the-- That's part of
3 the responses to one of the 50.54(f) requests that asked
4 for such a map, as I recall. I don't recall the exact number
5 of that request as I sit here.

6 Q In fact, Question 14 asked that an evaluation
7 be made of the effects of the existing and/or anticipated
8 cracks on the performance of the intended function of the
9 borated--among other structures, the borated water storage
10 tank foundation ring?

11 A Yes.

12 Q Now, in addition, in the summer of 1979 there
13 was an evaluation of the fill material under the borated
14 water storage tank foundation, was there not?

15 A I believe the Applicant performed or had
16 performed such an investigation, yes.

17 Q But there was a test pit dug, is that correct?

18 A Yes, there was.

19 Q And there were borings taken, were there not?

20 A Yes, I believe there was a follow-up effort
21 to the pneumatic lines problem.

22 Q And for the record, the pneumatic lines problem
23 is there was some air leakage from a pneumatic line in the
24 vicinity of the borated water storage tank foundation ring,
25 is that correct?

1 A Yes, sir. As I recall, the previous witness,
2 Mr. Gene Gallagher, had observed air bubbling in close vicinity
3 to one of the borated water storage tanks, and it was subse-
4 quently determined that this was the result of a pneumatic
5 line--air leak from the pneumatic line.

6 Q And that was the reason for the borings and
7 the digging of the test pit, was it not?

8 A I believe it had something to do with it.
9 I don't know if that was the only reason or not.

10 Q It was also to evaluate the foundation properties
11 of the soil underneath the borated water storage tank founda-
12 tion ring, wasn't that--

13 A I believe so.

14 Q And were those results reported to the NRC?

15 A Yes.

16 Q Do you recall whether they were reported before
17 or after the construction of the tanks?

18 A I believe they were reported before construc-
19 tion of the tanks. I'm not absolutely certain on that point,
20 but that is my recollection.

21 Q Will you accept my representation that the
22 construction of the tanks began in September of 1979?

23 A Yes.

24 Q Does that refresh your recollection, let me ask
25 the question.

K7L4

1 A It sounds right to me, approximately the right
2 time frame.

3 Q And were the crack maps and the evaluation
4 of the soils that we have been discussing provided the NRC
5 Staff at some point prior to September of 1979, as best you
6 can recall?

7 A Yes, I believe we had that information by that
8 time.

9 Q Was it evaluated?

10 A I believe it had been looked at by the Staff.
11 I'm not sure what you mean by "evaluated". If you are asking
12 me, had an evaluation been completed, I don't know. I do know
13 the Staff was looking at it.

14 Q All right. Do you recall whether based on
15 Staff evaluation--I beg your pardon--Staff review of the
16 information that had taken place, there was any disagreement
17 with the conclusions that Consumers Power Company had come to
18 with respect to the cracks that it found in the borated
19 water storage tank foundation ring and the soil properties that
20 it had observed when it dug the test pit and took the borings?

21 A Yes, I believe Consumers' position was there
22 was no problem, that the cracks, in their view, were shrinkage
23 cracks.

24 Q Do you recall anyone from the Staff disagreeing
25 with that conclusion in the year 1979?

1 A When you say "disagree", Mr. Miller, I don't
2 know--I take it the thrust of your question is was there a
3 representation of such to Consumers. If that's the thrust
4 of your question, I do not recall. I do recall such representa-
5 tion in other forms, not to Consumers.

6 In my role as project manager, I am aware of
7 reviews that are going on and whether or not reviewers agree
8 or disagree with the substance of the information they are
9 given. My recollection is that they had reservations about
10 the cracks, and because of the cracks, my reviewer, structural
11 engineer reviewer--and at that point, as I recall, it was
12 Mr.--I believe at that point in time was Mr. Ron Babinski--
13 I believe I recall that he had reservation about certain of
14 those cracks, which in his view were rather large and were
15 suggestive to him as being structural cracks as opposed to a
16 shrinkage crack, and he felt that a great deal of informa-
17 tion was needed as to the cause of cracks, not only in the
18 borated water storage tank, but in all structures that had
19 exhibited cracking, including the surface water structure,
20 the diesel generator building, and in requests that they had
21 made called for such studies.

22 I don't believe that the Staff was satisfied
23 then, and I don't believe that they are satisfied to date
24 that the cause and evaluations of those cracks are that conclu-
25 sive.

K7L6

1 Q Excuse me, Mr. Hood, when you are talking
2 about crack evaluation, wasn't the primary focus of the NRC
3 review effort with respect to cracks on cracks that were
4 identified in the diesel generator building?

5 A You mean primary focus?

6 Q Yes, sir.

7 A I assume that there may have been more attention
8 given to that than the other structures, but I--yes, I would
9 say the primary focus, but not the only focus.

10 Q Isn't that because that was the structure
11 in which the cracks were the widest?

12 A I don't know that I can say that, Mr. Miller.
13 I agree that the widest cracks were existing in the diesel
14 generator building, but I don't know from the reviewer's
15 perspective--if from his perspective he put more attention
16 in the diesel generator building for that reason.

17 Q Now, Mr. Hood, during the time that the borated
18 water storage tank was being constructed, did anyone from the
19 Staff say, in substance, "We are dissatisfied with your crack
20 analysis; don't build the borated water storage tank itself
21 on these foundations"?

22 A No, sir, and I would have been surprised from
23 the Staff had they instructed the Applicant not to conduct
24 a proof test. The reason for that is that our questioning
25 also inquired as to whether or not that tank could be removed

K7L7

1 in the event that was necessary, and the Applicant gave us
2 the assurance that although it would not be a straightforward--
3 not that simple a task, he could certainly remove that tank
4 if need be.

5 Q Just so I understand, is the construction
6 of the tank itself, or the filling of the tank with water
7 for the proof test, that represents a "tendency to push ahead
8 despite the lack of proper assurance", as quoted in Ms. Stamiris'
9 Contention?

10 A It is really both, Mr. Miller. What I had in
11 mind at the time I made the statement was the fact that the
12 Applicant, to my mind, had not performed those finite element
13 analyses that assured him that the ring structure was worth
14 salvaging, in essence, before he proceeded with further construc-
15 tion.

16 I mean if those analyses, speaking hypothetically
17 now--if those analyses were to demonstrate that that structure
18 was not adequately supported--rather, the condition of the
19 ring foundation would not provide for the suitable support of
20 the tank, it would seem to me it would be prudent to know
21 that at the outset, and the finite element analyses that
22 were proposed for that structure would reveal whether or not
23 that was the case.

24 That analysis had not been performed at that
25 point in time, and the Applicant proposed to proceed with that

1 construction activity, and then after the fact, find out if the
2 ring foundation was suitable.

3 Q Well, let me understand, Mr. Hood. At the
4 time the construction went forward, the borated water storage
5 tank foundation ring had not exhibited any undue settlement,
6 had it?

7 A I believe the Unit 1 foundation had exhibited
8 a half or inch and a half--I don't recall the precise number--
9 of differential settlement. I'm not absolutely certain of
10 that statement.

11 Q If you don't know--

12 A I'm having a little trouble with chronology
13 at just what point in time that settlement was reported relating
14 to--

15 Q Do you recall that the Company's conclusion
16 at that point in time was that the soils under the borated
17 water storage tank foundation ring were basically sound?

18 A I recall that that was Consumer's position,
19 yes.

20 Q And that was a conclusion that differed from
21 its conclusion with respect to the soils under the diesel
22 generator building, isn't that right?

23 A Yes, that's a true statement.

24 Q There the Company concluded that the soils
25 required further compaction because of inadequate placement

1 of the fill material, correct?

2 A Yes.

3 Q Now, was this finite element analysis that
4 you referred to, a specific request by the Staff to the
5 Company prior to the time the tank was constructed?

6 A I'm sorry, Mr. Miller, I wasn't focusing on your
7 question.

8 Q That's all right.

9 A Would you repeat it?

10 Q Sure. Was the finite element analysis you
11 referred to in an earlier question, a specific request from
12 the Staff to the Company prior to the time that the tank
13 was constructed?

14 A Yes, as reflected by Question 14. I don't
15 think it-- I'm sorry. It doesn't--Question 14 doesn't
16 specifically call it a finite element analysis. I believe it
17 asks for a--asks that you provide an evaluation of the abilities
18 of these several structures to withstand increased differential
19 settlement.

20 Q Now, Mr. Hood, if no differential settlement
21 had been experienced, and at that point in time none was
22 expected, what would the finite element analysis have shown with
23 respect to the settlement?

24 A Mr. Miller, the only way I know how to answer
25 that is to clarify that your previous question to me was

1 directed to the Applicant's position. The difficulty I'm
2 having in responding to your question is that that position,
3 in my view, was not a position that was shared by the Staff.

4 Q I see.

5 A And they had these concerns that such would
6 occur.

7 Q I see. Mr. Hood, Question 14 does talk about
8 an evaluation showing which structures you predict may
9 experience settlement in excess of that originally intended,
10 does it not?

11 A Yes, sir.

12 Q And at that point in time, isn't it correct that
13 the Applicant did not expect to experience settlements in
14 excess of that originally intended for the borated water
15 storage tank foundation rings?

16 A I believe that's correct with respect to the
17 Applicant.

18 Q Did the Staff ever communicate to the Applicant
19 that it believed excessive settlement was going to occur
20 with respect to the borated water storage tank foundation,
21 in this time period?

22 A No, sir, it didn't make such communication
23 with the Applicant, no.

24 Q You knew, in the summer of 1979, that the Appli-
25 cant--I think you already testified to this--proposed to build

1 the tank and fill it with water to, in effect, determine
2 whether its prediction, if you will, of no excessive settlement
3 was going to be borne out?

4 A I believe that's correct. Mr. Miller, what
5 we are talking about here is the degree to which one--the
6 confidence that one has in various positions and information
7 that is being provided to Staff, whether or not we are reasonably
8 assured that that was the case, and I don't feel the Staff
9 was satisfied to that degree. I think that's probably the
10 source of confusion here.

11 Q Well, I'm not sure it is confusion, Mr. Hood.
12 My question is very simple. Was that lack of reasonable
13 assurance communicated to the Applicant specifically with
14 respect to the borated water storage tank foundation ring?

15 A I don't recall a specific communication to that
16 end, no.

17 MR. MILLER: Let me just check my notes,
18 Mr. Chairman. I think I may be finished.

19 CHAIRMAN BECHHOEFER: While you are checking,
20 do you recall that you had any discussions with the Applicant
21 which at least might have referred to the fact that the Staff
22 had not yet had an opportunity to review this, where the Staff's
23 doubts in this regard might have been communicated?

24 THE WITNESS: Chairman Bechhoefer, I can't recall
25 that there were specific comments the Staff had made that the

K7L12

1 Applicant should have been aware of where we were, or the
2 progress of our review. I feel quite certain that in various
3 exchanges that would have occurred, there probably were such
4 statements. I think a converse statement could be made, that
5 there was no indication given to the Applicant that indeed
6 we concur with his position. I think that's about as close
7 as I can come in response to your question.

8 MR. MILLER: May I just ask one more question,
9 one or two more off of your question, Judge Bechhoefer?

10 Q (By Mr. Miller) Mr. Hood, we have referred to a
11 July 18, 1979 meeting.

12 A Yes.

13 Q And at that meeting was the Applicant's program
14 for the borated water storage tank foundation ring discussed?

15 A My recollection is that it was.

16 Q And included in that was a discussion of the
17 Applicant's plans to build the tank, correct?

18 A Yes.

19 Q All right. And was one of the questions that
20 the Staff had at that meeting, "How are you going to assure
21 yourself that there is not going to be excessive settlement
22 of that structure?"

23 A Mr. Miller, this sounds very reasonable that
24 that probably was asked.

25 Q But you don't have a specific--

K7L13

1 A I don't have a specific recollection of it.
2 I would not be surprised if that were the case.

3 Q Was that question in substance asked at some
4 time prior to the construction of the tank? Did the Staff
5 put that question to the Applicant?

6 A I can only say it probably was.

7 Q All right. Fine. And do you recall that the
8 response, in essence, was that "We're going to build the tank
9 and fill it with water"?

10 A The answer to that was there was going to be a
11 proof test.

12 Q Correct. And at this meeting in July that we
13 have been discussing, or any other meeting prior to that
14 time, did any one of the Staff say in essence, "Don't do it,
15 we've got reservations?"

16 A No, sir.

17 MR. MILLER: I've got no further questions.

18 CHAIRMAN BECHHOEFER: I think before we ask
19 our questions, we ought to break for lunch.

20 MR. MILLER: Fine. I'd like to state on the
21 record, earlier this week there was a request made that the
22 Company provide certain statistics with respect to quality
23 assurance, quality control and craft personnel involved in soils-
24 related activities over a period of time. We have been working
25 on it. The information is not readily accessible in a form

1 that I think would be most useful to the Board, and with the
2 Board's indulgence, I'd like to supply that information when
3 we resume in August, if that would be okay.

4 CHAIRMAN BECHHOEFER: As far as we are concerned,
5 that's okay.

6 MR. MILLER: Thank you.

7 CHAIRMAN BECHHOEFER: At the time your witnesses
8 appear, your QA witnesses.

9 MR. MILLER: All right. That will be fine.

10 CHAIRMAN BECHHOEFER: An hour and 15 minutes
11 for lunch.

12 (Whereupon, at 12:28 p.m., the hearing was
13 recessed to reconvene at 1:50 p.m. this same day.)

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AFTERNOON SESSION

(1:50 p.m.)

CHAIRMAN BECHHOEFER: Back on the record.

Whereupon,

DARL S. HOOD,

resumed the stand as a witness on behalf of the NRC Staff and, having been previously duly sworn by the Chairman, was examined and testified further as follows:

BOARD EXAMINATION

BY CHAIRMAN BECHHOEFER:

Q The Board has a few--or I have a few questions.

Mr. Hood, I'm going to piece together a couple documents and statements in the record. When you speak of a material false statement, I take it that the word "false" doesn't have any connotation of "intentional", the statement being intentional?

A That's correct; it does not.

Q And "false" seems to mean inaccurate, is that correct?

A Yes, sir.

Q And that if a statement is a material false statement, and it should be intentional, as I read Attachment 17, that would be taken into account by the Commission in terms of enforcement action?

A Yes. If it would be determined that a given

K7L16

1 false or material false statement was indeed intentional,
2 that would be taken into account in the particular type of
3 enforcement action that would come under that matter.

4 Q So that in your testimony, by using the word
5 "material false statement", you do not intend to--you do not
6 have any implication that there is any intentionality to the
7 statement you are talking about?

8 A No, sir, I do--in my use of the term "material
9 false statement", I do not mean to convey any intent.

10 Q Now, when you state, or when it is-- When you
11 stated for the file in Attachment 17 that some of the statements
12 represent poor QA performance, what implications, if any,
13 would you attribute to management by virtue of what you
14 term "poor QA performance"? Would that reflect on the dedica-
15 tion of management?

16 A Did you say the education?

17 Q Dedication.

18 A I suppose in a broad sense, the wide breakdown
19 in the quality assurance program to the effect that I testified
20 here in this hearing, that we have seen, has a reflection on
21 management dedication, and to the extent that these are just
22 further elements of that QA breakdown, at least in my opinion,
23 there is that connection. I don't believe that in my testimony
24 I'm trying to make a specific reference to the--in connection
25 with management attitude or management dedication in response

K7L17

1 to the five items that I have listed in that enclosure.

2 Q Well, would these items reflect on-- I believe
3 either you or Mr. Gallagher talked about dedication or
4 attention to details.

5 A Yes, sir.

6 Q That would be--

7 A That's really what I had in mind in my previous
8 response to you, in the sense that that kind of end result
9 that should flow from dedication and details was not occurring
10 in fact, had a reflection upon management dedication.

11 Q I will take it one step further, then. Does
12 it reflect on management competence?

13 A That's even more--

14 Q Technical competence, if you wanted to use
15 the official words, I guess.

16 A It takes a pretty big jump, I think, to get
17 to that conclusion, and I don't think I would go so far as to
18 say that the QA problems that we are discussing is a result
19 of management competence.

20 MR. MILLER: Could I have the last word repeated?
21 Competence or incompetence?

22 THE WITNESS: Competence.

23 Q (By Chairman Bechhoefer) Now, you have made
24 statements about each of these examples. In Paragraph 1 to
25 Enclosure 2 of Attachment 17 there is a reference to NRR

K7L18

1 recommendation that consideration be given to combining all
2 five findings. If you combine all five, could you answer the
3 questions I have been asking about dedication to detail or
4 managerial competence in terms of all five together?

5 First, have you considered these items, these
6 findings, in the way that NRR appears to have suggested from
7 that Paragraph 1?

8 MS. BROWN: May I ask just a point of clarification--
9 tion? Do you mean does the order contemplate--does the order
10 adopt NRR's suggestion that--

11 CHAIRMAN BECHHOEFER: No, I wasn't referring to
12 the order. I was referring to his testimony concerning atten-
13 tion to details and managerial competence.

14 THE WITNESS: Which paragraph one are you looking
15 at?

16 CHAIRMAN BECHHOEFER: Paragraph 1 of Enclosure
17 2 to Attachment 17, which is your memo to the file of August
18 9, 1979. It's the last page of the testimony in Paragraph
19 No. 1, the very last words.

20 THE WITNESS: Yes, sir, I found the statement
21 to which you are referring. Could I ask you if you would
22 please repeat the question?

23 Q (By Chairman Bechhoefer) Well, there were
24 really two questions. First, have you considered the five
25 findings in the way suggested by this paragraph, and if so,

1 what implications to managerial dedication to detail or compe-
2 tence--what implications are there to that, if you combine the
3 five?

4 A When the statement was given, the order had
5 not been issued, and the exact form of that order had not been
6 decided. Indeed, this was one of the elements leading to the
7 final framing of the order.

8 We, at the meeting that this is documenting,
9 were discussing all five candidate statements for their
10 materiality as reflected here, and our comment regarding a
11 combination of the five, it is corrected to the particular
12 enforcement action that might flow from these candidate state-
13 ments.

14 It is by way of suggestion that the framing
15 of the order, or whatever action was to flow from that, these
16 considerations, group these as a single entity as opposed to
17 individual enforcement actions on each item.

18 Q So this was directed at the type of enforcement
19 action or order which might issue, and not to any potential
20 synergistic effect of combining the five items?

21 A Yes, sir.

22 Q Do you regard the difficulties, if that's the
23 right word, of the Staff to obtain-- There were five documents
24 or five categories of documents listed in Attachment 9 to your
25 testimony. That's the summary of the February 27 and 28, 1980

K7L20

1 meeting. Do you regard the difficulties the Staff had in
2 obtaining those documents as a reflection on managerial atti-
3 tude?

4 A Only Item 4.

5 Q That's the item dealing with compaction?

6 A Yes. I do not consider that the other four
7 reflect adversely upon attitude.

8 Q Now, if you turn to Page 9 of your testimony,
9 in the carry-over paragraph at the top of the page, have
10 these two replacement documents that are mentioned been
11 forwarded to the Staff?

12 A Yes, sir.

13 Q And were they forwarded in a timely fashion
14 insofar as the Staff is concerned?

15 A Yes, sir.

16 (Continued on next page.)

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1 Q Turning to pages 10 and 11, you mention that
2 some views which were expressed were those of Bechtel's
3 consultants and, therefore, you were not willing to attribute
4 those views to Consumers Power. Was it clear that those
5 views, the views you're talking about, which are mentioned
6 on pages 10 and 11 of your testimony, was it clear that those
7 actualy were views of Bechtel's consultants?

8 A No, sir, it's not clear. It's just my interpre-
9 tation from the reading of the meeting summary. I believe
10 it's Attachment 13. I was not present at a meeting between
11 the Applicant, Bechtel and Bechtel's consultants, and I'm
12 basing my testimony upon my interpretation of a reading of
13 that attachment.

14 Q In the process of you're going through, does
15 this amount to giving the benefit of the doubt to Consumers?

16 A Yes, sir, it does.

17 MR. MILLER: Chairman Bechhoefer, I'd like to
18 point out for the record that both the consultants involved
19 will be here, I believe, in August, and be able to confirm
20 Mr. Hood's testimony with respect to who said what on that
21 issue.

22 CHAIRMAN BECHHOEFER: Right. What I wanted to
23 establish at this moment was the thought process that Mr.
24 Hood had in developing this testimony.

25 THE WITNESS: I don't have any first-hand

1 knowledge of who said what. It's strictly limited to my
2 reading of the summary.

3 Q (By Chairman Bechhoefer) Well, my question was,
4 does the NRC Staff usually give the benefit of the doubt to
5 the Applicant in this fashion, or would they normally require
6 the Applicant to come in with some affirmative proof to
7 support this kind of conclusion?

8 A Well, if the information is significant to our
9 safety conclusions, we would endeavor to get the best source
10 of information that we can.

11 Q But in reviewing the charge that has been made
12 here, are you saying that the Applicant's actions are okay
13 unless proven to the contrary, or are you approaching it from
14 the view that the Applicant, when a charge is made, must
15 answer the charge?

16 A Judge Bechhoefer, I approached it from the
17 standpoint that the information is readily obtainable as part
18 of this hearing, as to who did, in fact, make what statements.
19 And on that basis, I did not inquire of the Applicant who
20 directly made that statement.

21 Q Going back to some questions that Mr. Miller
22 asked you, was Consumers ever told in so many words by the
23 Staff not to start the surcharge before NRC had completed its
24 review?

25 A No, sir. It did not.

1 Q Was it ever, before it had completed that
2 review, was it ever encouraged to undertake the surcharge
3 process, by any Staff member, to your knowledge?

4 A I'm trying to recall any incident that I can
5 that may have been construed as encouragement, and I do not
6 recall, as I sit here, any statement that we made that I
7 consider to be encouragement to proceed with the surcharge
8 program.

9 If I recall the thrust of our inquiries in
10 acquiring information on the plans, I just don't recall any
11 what I consider to be encouragement from the Staff to proceed
12 with that particular fix.

13 Q To your knowledge-- First, from what I conclude,
14 the Staff was taking an essentially neutral position at that
15 time, absent completion of this review.

16 A I think the Staff was focusing upon acquiring
17 sufficient information to be in a position to take a position.

18 Q Did the Applicant know or have reason to
19 believe that the Staff at that time either did not or may not
20 have had enough information to reach a position?

21 A In my opinion, he should have been of that
22 position by virtue of the information he supplied us in
23 response to the questions that we had asked him. In some
24 cases there were explicit statements indicating that certain
25 analyses were incomplete and would be provided at a later

1 date. Some of the information that we asked for were
2 explicitly identified as being--that it would be supplied at
3 a later date. Those dates, relative to the specific actions
4 that were taken, in their time frames, were either tight or
5 after the fact.

6 Q And were the responses to which you just
7 referred, were they submitted before the fact, before the
8 surcharge action started?

9 A You mean the response that gave the date?

10 Q That said that further information would be
11 submitted at a later date.

12 A Yes, I believe that was the case. Where the
13 response was telling us we would get information on a later
14 date, I believe did precede the series of events, such as
15 removing the surcharge.

16 Q Then I take it that the questions which elicited
17 those responses were given the Applicant even earlier--that's
18 almost be definition.

19 A It may have been given to the Applicant while
20 the surcharge was in place, but the response that would
21 indicate that we were receiving criteria, would indicate that
22 we were receiving criteria after the surcharge had been
23 removed. Of course we may not have known it at the time, but
24 I believe the timing would indicate that.

25 Q Could you answer the same question with regard

1 to the borated water storage tank?

2 A. The situation with the borated water storage
3 tank I would characterize as a little different situation.

4 Basically, the Staff was attempting to acquire
5 the information that would permit it to independently satisfy--
6 to arrive at the conclusion that the Applicant had propounded.
7 That is, that the borated water storage tank ring was
8 basically sound and that nothing really needed to be done.

9 We had reservations about that. The evaluation
10 was in progress at the time. Of course we were doing our
11 own evaluation at the time, and we did obtain certain
12 assurances from the Applicant with regard to further
13 construction and obtained assurances that the tank could be
14 removed if that became necessary. And on that basis we did
15 not raise any objection to his proceeding at his own risk.

16 Our evaluation of that structure was not
17 completed then, and indeed is not completed today.

18 Q Well, I....

19 A. Did your question go just to the borated water
20 storage tank, or--

21 Q Well, it did, but if you would like to comment--
22 I have a few more on the borated water storage tank.

23 A. Well, let me stick with that, then.

24 Q I think you mentioned this morning that--correct
25 me; either you didn't object or you approved on this so-called

1 method of proof testing, or expressed some opinion. I don't
2 know, you or NRC, I don't care which, expressed some approval
3 of the proof-testing approach, or did I misunderstand your
4 response this morning?

5 A. I don't believe I said we approved of a proof-
6 testing approach. Indeed, my recollection was that we didn't
7 really look to that as a fix, per se. We had concerns at
8 the time about the cracks that were present in the structure,
9 and we didn't see the proof test would provide the information
10 we needed to satisfy ourselves that the ring foundation was
11 a basically sound structure. We had some reservations, and
12 still have reservations today, about the soils beneath the
13 ring foundation, and within the last few months have asked
14 for consolidation tests for that structure, on the grounds of
15 that structure.

16 I believe I spoke a little bit about certain
17 events with regard to that structure in my original testimony
18 in this session, about the loading of the valve pit, which
19 is one element of the currently-proposed remedial action,
20 which I understand is close at hand.

21 Perhaps I deviated from the question, and should
22 get back on track.

23 Q Well, that's okay. One of the things I was
24 leading to is, if the Staff were to rely, perhaps, in part on
25 a proof test such as the Applicant was proposing to use, would

1 the Staff normally want more information which would give
2 some indication as to whether the proof tests were likely to
3 be successful, of whether the foundation was likely to
4 withstand the load which was placed upon it?

5 A. Well, I believe the actual events that occurred
6 were of that very nature. Indeed, they did proceed with the
7 proof test and, indeed, the Staff did proceed to continually
8 ask for further information regarding that structure. There
9 were several questions we asked. I believe on August 4, 1980,
10 and even prior to that time, we had asked questions with
11 regard to that structure. And, as I say, that evaluation has
12 not been concluded to date.

13 So, indeed, we have continued to seek informa-
14 tion that will allow us to independently assess the adequacy
15 of the borated water storage tank.

16 Q. Would you have preferred some sort of analysis
17 of this sort prior to the beginning of the proof test
18 installations?

19 A. Yes, sir. It was my distinct impression that--
20 I felt that would have been a more prudent approach.

21 Q. Was the Applicant ever told of that, either in
22 an official communication or in some other--

23 A. To a degree it's implied in the questions that
24 we had given the Applicant. It's a request for analysis. But,
25 no, we did not make an explicit statement, "Does Applicant

1 think it would be more prudent if he would do the analysis
2 before he proceeds with the proof test?" Not that I recall.
3 Now I could be mistaken on that. I don't recall such an
4 explicit statement as that.

5 Q Either in an official communication or in a
6 contact--telephone contact, or a meeting between you or other
7 NRC persons, and the Applicant, to the extent that you know
8 about it?

9 A No, sir, I just don't recall such a statement
10 as that.

11 Q Now, did you wish to make some comments, either
12 further comments on the borated water storage tank, or comments
13 about similar situations? I sort of gathered that you had
14 some further statement.

15 A No. I was under the impression that perhaps
16 I hadn't answered fully one of your previous questions. We
17 talked at length about the borated water storage tank, and it
18 seemed to me at the time that the question was involving just
19 the tank, or whether it was other structures you were asking
20 me about.

21 Q Are there other structures, other than the
22 diesel generator building and the borated water storage tank,
23 to which some of the same considerations were applied?

24 A You'll have to help me with what considerations
25 were applied.

1 Q Well, where the Applicant may have gone ahead
2 with some corrective action prior to the NRC being satisfied
3 that they had satisfactorily analyzed the remedial action,
4 the fixes.

5 A No, sir, I don't believe in the case of the
6 other structures. For example, in the case of the piles,
7 which was then proposed for the service water structure, he
8 never got to the stage where he would actually start that
9 construction activity. It was still formal design. They
10 were about to let a contract out for the design and
11 construction for that fix. I believe that was the case of
12 the piles. But a similar situation applied in the case of
13 the fix for the electrical penetration area, which is a portion
14 of the auxiliary building. At that time, I believe caissons
15 were proposed as a fix. Again, he never reached the
16 construction phase of that remedial action. The contract was
17 about to be let. It's not clear to me as I sit here whether
18 or not that contract applied to the caissons or to the piles,
19 or both. Generally, that was the status of the construction,
20 that it had not progressed to that extent.

21 So it was not quite the same situation as the
22 borated water storage tank surcharging, or surcharge of the
23 diesel generator that we mentioned.

24 Q Were these other proposed activities held up as
25 a result of NRC communication or direction?

1 A. I don't believe that the Staff review of this
2 matter has impacted the Applicant's construction schedule.

3 Q. That's not what I meant. It's my understanding
4 that at least in the area of caissons, where the plant was
5 changed, was that caused by NRC's intervention?

6 A. Where the design was changed--you mean where
7 the remedial action--

8 Q. Where the remedial action was changed, yes.

9 A. And the question is, was that caused by the--

10 Q. --by some sort of NRC intervention, order,
11 activity?

12 A. Yes, sir, it was caused by NRC activity. That
13 specific activity, as I understand it, was that we gave them
14 two alternative methods for the resolution of the seismic
15 matter. The piles which were then proposed for the service
16 water structure were determined by Consumers to offer
17 insufficient seismic margin, and a more positive remedial
18 action was subsequently proposed.

19 I believe the same kind of reasoning applied in
20 the case of the electrical penetration area, which the caissons
21 remedial action was discontinued. And recently, a remedial
22 action which should provide--I believe can be expected to
23 provide--satisfactory seismic margin, is now being proposed;
24 that proposal being a concrete pier. That is, simply to remove
25 the backfill beneath the structure and replace it with concrete

1 down to the glacial till.

2 Q Well, absent final resolution of the seismic
3 questions, was the proposal designed to accommodate the most
4 conservative of the seismic proposals?

5 A I don't understand the question.

6 Q Well, by "most conservative," I mean the seismic
7 proposal that would require the--that would lead to the
8 greatest ground acceleration of the two alternatives that
9 the Staff proposed.

10 A I'm sorry, Judge Bechhoefer, I just don't
11 understand the question. A change to the proposed fix that
12 would give greater margin?

13 Q Does the greater margin accommodate the most
14 conservative of the two Staff approaches?

15 A Yes, it does. I mean that's how the need for
16 greater margin is being expressed. It's coming out of
17 resolution of the seismic issue which is selected consistent
18 with providing the Central Stable Region as a basis for that
19 matter.

20 (Continued on following page.)

21 end 8

22

23

24

25

1 Q (By Chairman Bechhoefer) I see. So those
2 corrective actions are based on that?

3 A Yes, sir, they are based on the spectra response
4 factor which is consistent with the use of the central stable
5 region as a basis.

6 Q I believe this morning you mentioned that there
7 was a meeting of November 28, 1979, and if I understood your
8 testimony, you stated that there was a discussion of QA
9 matters, but no discussion of the possibility of early
10 removal of the surcharge. Am I not recollecting correctly?

11 I have some notes, and they are not as clear
12 as they perhaps should be.

13 MR. MILLER: Perhaps I can be of assistance.
14 I don't believe that's an accurate characterization of my
15 questions to Mr. Hood. Maybe I could help.

16 I think that I was asking him about whether
17 at the November meeting there was any discussion regarding
18 the fact that the Company had removed the surcharge without
19 adequately responding to Question 4 of the 50.54(f) responses.
20 I was tying that back to Mr. Hood's prepared testimony.

21 Q (By Chairman Bechhoefer) I see. I have in my
22 notes Mr. Hood said there was a discussion of certain
23 QA matters, and my question really is, were those QA matters
24 in any way related to the timing of the removal of the sur-
25 charge?

1 A I don't think quality assurance matters
2 affected the timing of the removal of the surcharge.

3 Q I see. I maybe misunderstood from my reading
4 of the deposition of Mr. Kane. I may have misunderstood that.
5 Perhaps we should wait until they get to that, the remedial
6 action.

7 A Yes. We will be discussing all these, and
8 we are getting a little bit into the next session, but it is
9 all right if I'm setting the tone for coming events.

10 A I guess I can wait on that one.

11 I think in that same discussion you used the
12 term "insufficient review attention". I wondered if you
13 might wish to elaborate on that a bit.

14 A As I recall the issue, it was whether or not
15 Staff resource problems at any time in 1979 were such that
16 I felt insufficient review attention was being given to the
17 Midland soils settlement matter, and what I attempted to
18 convey was that I feel it was affecting perhaps the timeliness
19 at which events might otherwise occur, but not the depth of
20 that review.

21 I wasn't intending to reflect in any way adversely
22 upon the quality of the Staff review. It's a situation
23 that we just had priorities, particularly in certain branches
24 like the seismic branch. We had to make some tough decisions
25 to apply limited resources on more pressing operating plants,

K9L3

1 and had that not been the case, a more timely resolution
2 of the seismic matters might possibly have occurred.

3 I don't want it to sound like I'm tying it
4 all on that branch. It was a give and take between the Staff
5 and the Applicant. They needed information from the Applicant.
6 Of course, they review that and they get back to the Applicant
7 with their evaluation of that, but in the process, we certainly
8 accept our responsibility that we were--our own situation
9 was a factor also.

10 I don't know if that answered your question or
11 not.

12 Q I think you helped, but I also am going to use
13 it as a lead-in. I assume you were here yesterday, or maybe
14 two days ago, when Mr. Gallagher made a suggestion that Staff
15 assign an on-site geotechnical engineer full-time when the
16 remedial soils action would be undertaken. How would you feel
17 if that were done? I'm not asking you about whether there
18 are resources to do it now, but if it were done, do you think
19 that would be useful for the Staff in its--I won't say
20 "supervision", but surveillance of the activities of the
21 Applicant in the remedial action?

22 A Yes, sir. I don't have any doubt that it would
23 be useful. I believe Mr. Cordell Williams also spoke to that
24 matter.

25 Q Well, from the standpoint of the project

K9L4

1 manager, what is your thought on it as well?

2 A That's the point I'm leading to, sir.

3 The contrast between the statement of Mr. Gallagher and
4 Mr. Williams was whether or not that particular assignment
5 would be full-time. I believe Mr. Williams underscored the
6 fact that it would be equivalent to full-time, meaning that
7 that particular individual would also spend part of his
8 activity back in the region.

9 It is--the position of the project manager
10 is that he has no position in that regard. I happen to
11 feel as an individual, speaking now for myself and not for
12 the Staff--

13 Q That's fine.

14 A --that either case can be very effective. Either
15 case will accomplish, in my opinion, the objective that I
16 would envision from that activity.

17 Q I take it you at least agree that substantial
18 attention by a geotechnical engineer to the soils remedial
19 work is desirable, if not necessary?

20 A Yes, sir, I do. My overshadowing impression,
21 again speaking for myself, is that the remedial actions are
22 very specialized and require a very specialized type of atten-
23 tion, and they are also very important, and therefore require a
24 high degree of attention, and therefore I do not personally
25 have any objection.

K9L5

1 My feeling is that it is a worthwhile assign-
2 ment to have an assignment made on the part of the Staff doing
3 those activities.

4 Q Now, would this opinion be different if an
5 Applicant had not previously had some problems in the soils
6 area?

7 A I don't think so. Not to my mind. I think
8 it is--because it is a highly specialized activity, that
9 experts that are familiar and have prior experience with a
10 particular type of activity need to be present. You are
11 excavating out in the structures, there's very critical stages
12 of that excavation--and this will become more obvious in
13 subsequent sessions of this hearing-- I think it behooves
14 the Applicant to have trained, specialized people available
15 when those critical phases are occurring, and I have no doubt
16 that he will do so for his own reasons.

17 I also have a feeling-- Well, it is my impression
18 that the reasonable assurance that we will require to have
19 at the completion of that activity will be greatly enhanced
20 if we have our own direct observation of that remedial action,
21 and from that standpoint I think it is very worthwhile to see
22 members present when those activities are occurring.

23 Q And specifically specially trained NRC members?

24 A Specially trained for that activity. The
25 assurance that the activities were not only done according to

1 procedures, but in the process of doing it, there were no,
2 shall we say, latent effects lying around waiting to happen,
3 which stems from doing it correctly.

4 I think those kinds of matters or questions
5 as to whether or not that is present will be lessened to the
6 extent that we participate directly in the observation of that
7 remedial action.

8 Again I want to remind you, this is my own
9 personal thought. I'm not speaking now in my official capacity.

10 Q There's a couple of other questions you answered
11 this morning which I would like a little clarification on.
12 You acknowledge that there perhaps was a technical difference
13 between the Staff and the Applicant on the preload.

14 My question is, isn't the Staff position based
15 more on the timing of the preload than on the technical
16 validity of the approach?

17 A You mean timing with regard to other events,
18 as to when the cooling pond was--

19 Q Timing vis-a-vis Staff review of the likely
20 effects.

21 A Is the Staff concern based on the timing--

22 Q Not the Staff concern. You mentioned that there
23 was a technical difference in technical opinion, and if we
24 should accept--you know, if we accepted that, and particularly
25 as you have used it throughout your testimony, isn't your real

1 difference with the Applicant based on the fact that they
2 went ahead with the preload program before the Staff had
3 had adequate opportunity to review the likely effects of that
4 program, the success of that program, I should say?

5 A Perhaps I can better understand the question
6 and tell you that there's two different kinds of concerns here.
7 One concern that I believe is what you are going to is
8 our involvement in the regulatory capacity requires that we
9 know certain levels of detail up front, and we are attuned
10 to a process that allows us to arrive at reasonable assurances
11 and then the activities ensue.

12 That's not exactly the type of matter that
13 is proposed in the case of the surcharge program. That's
14 one element of the problem.

15 The other problem--and I'm not sure if it is
16 the one you have refer nce to or not--that is, that having
17 completed the remedial activity, is the Staff now in a
18 position to verify the adequacy of that on the basis of that
19 activity, and in that case I believe there is a difference
20 between us and the Applicant about what is the remedial action
21 itself. Was the surcharge program itself a sufficient indicator,
22 provide a sufficient basis for extrapolation of future settle-
23 ment, and the Staff's position is we need other information
24 that we will acquire from borings that we have requested in
25 conjunction with the information learned from the preload

1 program as a basis for that future settlement prediction,
2 and I'm not sure which of these matters you are focusing
3 on, and I'm not sure how to answer the question.

4 Q It was really the first of those.

5 A Did I answer it?

6 Q I think you did.

7 A Thank you.

8 Q Now, my final question about-- I think you
9 mentioned that--or in response to a question you stated that
10 the widest cracks that occurred in the diesel generator
11 building-- I think at that time you were being asked about
12 the borated water storage tank, and I wanted to find out
13 what significance the width of cracks between one building
14 and another building--what significance there might be.
15 Isn't it the size of the building that determines the significance
16 of the width of a particular crack?

17 A The width of a crack as well as the orientation
18 and perhaps its depth are significant in determining whether
19 or not it is a curing crack or whether or not it is a structural
20 crack, for example, one that would result from stress as may
21 be induced by a difference in settlement.

22 Q What I was trying to determine is whether a
23 one-inch crack in one building necessarily would be worse
24 than a half-inch crack in another building, or does it depend
25 on what the location is, what the surrounding circumstances

K9L9

1 are?

2 A I'm afraid you are getting a little too technical
3 for me, and I will submit that there will be other witnesses
4 in the next session, in the form of Mr. Frank Rinaldi, who
5 can speak at length on this question.

6 Q I was really doing it just to clarify. Where
7 you admitted or stated that when being asked about the
8 borated water storage tanks, you stated that the cracks
9 in the diesel generator building were wider, and I just
10 wanted to know what significance that had. I think your
11 answer is probably satisfactory at this stage. I will go into
12 more detail later.

13 CHAIRMAN BECHHOEFER: That's all the questions
14 the Board has.

15 MS. BROWN: The Staff has no redirect.

16 CHAIRMAN BECHHOEFER: Ms. Stamiris.

17 MS. STAMIRIS: I have one question I'd like
18 to ask as a follow-up to Mr. Miller's.

19 RECROSS EXAMINATION

20 BY MS. STAMIRIS:

21 Q Mr. Hood, do you remember a discussion earlier
22 this morning in which Mr. Miller, admittedly oversimplifying
23 it, said that the end result of whether the diesel generator
24 building would operate safely when called upon was the key
25 question? Something to that effect.

K9L10

1 MS. STAMIRIS: Is that a fair paraphrasing?

2 MR. MILLER: Yes.

3 A Yes, I recall that.

4 Q (By Ms. Stamiris) And you spoke even earlier
5 of the necessity or the desire on the part of the NRC to have
6 up-front assurances, and I would like to ask you if in fact
7 the way you assure yourself of that end result of whether the
8 diesel generator building will operate safely when called
9 upon is by means of some up-front assurances such as that
10 stated in the sentence that we have quoted twice this morning
11 from the end of the December 4th meeting? And I'd like to
12 read it where it says, "The proposed solution is at the risk
13 of the Applicant, and that the NRC"--and this is the part I
14 want to focus on--"intends to review and evaluate this matter
15 in accordance with the original compaction requirement as set
16 forth in the commitments of the PSAR."

17 A The answer is that's normally the way the Staff
18 does business. In the case of the observational method,
19 that up-front information is not available, so one is forced
20 of necessity to wait and make decisions of acceptability at the
21 conclusion of that matter, when the information is available,
22 and which indeed came out of the act of doing it.

23 Q But what I want to know is, the NRC will make
24 those assurances perhaps at the conclusion of the preload,
25 but obviously before we are called upon to find out whether the

1 diesel generator building operates safely in the end. In
2 other words, there will be these assurances by some s_pecific
3 objective, or, you know, some special procedures. You will
4 not follow the same philosophy of the observational method
5 to just wait and see. I just wanted to make sure of that.

6 You don't understand? I'm not making myself
7 clear?

8 CHAIRMAN BECHHOEFER: I don't even know that
9 you asked a question.

10 Q (By Ms. Stamiris) I want to know whether the
11 Staff intends to review and evaluate this matter now in accor-
12 dance with the original compaction requirements as set forth
13 in the commitments in the PSAR.

14 A I believe the best you can do is meet the
15 intent of the PSAR. You cannot meet the PSAR. The PSAR
16 would require that you provide adequate support to the
17 structures. I think it is abundantly clear that something
18 short of that was achieved, and that is what this hearing is
19 about, whether or not the achievement of that by a different
20 means is acceptable.

21 Q And would I be correct in assuming that we will
22 be going into great detail about that at later sessions?

23 A Yes, ma'am.

24 MS. STAMIRIS: Okay.

25 MR. MILLER: I just have a very few questions, Mr.

K9L12

1 Hood.

2 RE CROSS EXAMINATION

3 BY MR. MILLER:

4 Q The intent of the PSAR in general is to assure
5 that the facility can be operated with due regard to public
6 health and safety, is that correct?

7 A Yes.

8 Q All right. And specifically with respect to
9 the diesel generator building that will be called upon,
10 as we said this morning, when it is called upon, it will
11 perform its intended function, is that also correct?

12 A That's correct.

13 Q One of the things that would impair its
14 intended function is if there was excessive settlement, is that
15 also correct?

16 A Yes.

17 Q If we assure ourselves that excessive settlement
18 will not occur prior to the time that the plant begins opera-
19 tion, then we've satisfied those criteria, isn't that right?

20 A No, sir.

21 Q Isn't it a fact that if you have a proof test
22 through the surcharge program which leads to a prediction
23 of future settlement that is acceptable, that the intent of
24 the PSAR as we have just expressed it will be met?

25 A Mr. Miller, if you will encompass both the static

H0L13

1 and the dynamic aspect, I think we can agree.

2 Q Certainly. During transient and normal
3 operating conditions, is that satisfactory?

4 A Yes, sir.

5 Q By "transient", I mean earthquakes and other
6 events such as that.

7 A Yes, sir.

8 Q Now, I'd like to go over just briefly some
9 questions on the borated water storage tank. The first ques-
10 tion to be determined with respect to the borated water storage
11 tank was whether or not the fill material under it was going
12 to cause it to exhibit excessive settlement, isn't that
13 right?

14 A What time frame?

15 Q When the analysis started on the borated water
16 storage tank.

17 The first thing to be determined was whether
18 it was likely to experience excessive settlement, isn't that
19 correct?

20 A Yes, sir.

21 Q Now, I want to take a hypothetical situation.
22 If the tank had been filled with water and had not exhibited
23 the differential settlement that in fact it did, would that
24 have satisfied the Staff that the soil under it would not result
25 in excessive settlement?

K9L14

1 A I don't think I can answer that. Perhaps
2 Mr. Rinaldi will be able to answer that, or Mr. Kane.

3 Q Are you familiar with the diesel oil fuel tanks?

4 A Yes, sir.

5 Q And those are safety-related structures, are
6 they not?

7 A Yes, sir.

8 Q And would you describe for us briefly whether
9 or not they are founded at least in part on fill material?

10 A Yes, sir. My understanding is that those
11 underground tanks are embedded within the fill material.

12 Q And could you describe for us briefly what,
13 if anything, the Company did with respect to those tanks?

14 A What the Company did was to load--to fill the
15 fuel tanks and observe settlement for a period--I believe of
16 six months, or so. Perhaps long. I don't recall the exact
17 time, but it was something like six months.

18 Q And was any excessive settlement observed?

19 A I don't believe that the settlement that
20 occurred was excessive. I don't believe it was deemed by the
21 Company to be excessive either.

22 Q And has the Staff accepted the results of that
23 test as demonstrating that the fill material under the diesel
24 fuel tanks is satisfactory?

25 A I believe that to be a correct statement. I'm

K9L15]

1 not absolutely sure.

2 MR. MILLER: Fine. No more questions.

3 MR. DECKER: I don't have a question at this
4 time in part due to the day of the week and the time of the
5 day, but primarily because I think we will have a better
6 chance to answer it later. I certainly mean to bore into
7 some extent on whether or not the surcharge program and the
8 loading of the boron water tanks constitutes any sort of a
9 proof test with respect to the compaction issues that you
10 touched on, but I won't do it now.

11 CHAIRMAN BECHHOEFER: The Board has no ques-
12 tions. Does anybody have any follow-up?

13 MS. STAMIRIS: No.

14 CHAIRMAN BECHHOEFER: The witness will be
15 excused.

16 (Witness excused.)

17 MR. MILLER: I'd like to press on, if we might,
18 with Mr. Turnbull. I believe my direct examination will be
19 quite brief.

20 CHAIRMAN BECHHOEFER: Okay. Why don't we do
21 that.

22 MR. MILLER: Mr. Turnbull, would you take the
23 stand, please?

24 I'd like to have-- Maybe the witness ought to be
25 sworn first.

K9L16

DONALD M. TURNBULL

1
2 was called as a witness on behalf of the Applicant and,
3 having been first duly sworn by the Chairman, was examined
4 and testified as follows:

5 MR. MILLER: I'd like to have marked as
6 Consumers Power Exhibit 8 for identification a two-page docu-
7 ment which is headed up with Mr. Turnbull's name, Donald
8 M. Turnbull, and I believe a resume of his professional experi-
9 ence.

10 CHAIRMAN BECHHOEFER: Mr. Miller, would it be
11 preferable to have this bound in the record or his direct
12 testimony or--

13 MR. MILLER: Well, that would be satisfactory,
14 although we don't have the requisite number of copies at the
15 moment, but we can arrange to make those available, I think.

16 CHAIRMAN BECHHOEFER: I think I'd prefer, at
17 least since other qualifications are also in the record,
18 I think if this could be bound into the record, it would be
19 preferable, in which case it wouldn't be an exhibit.

20 MR. MILLER: Fine. I will not mark it as an
21 exhibit, and we will supply the reporter with the necessary
22 number of copies.

23 (The document referred to, the professional
24 qualifications of Donald M. Turnbull, follows:)
25

DONALD M TURNBULL
Senior Supervising Engineer SITE Q.A. SUPERINTENDANT.
Midland Project Quality Assurance Department
Consumers Power Company
November 19, 1980

EDUCATION

University of Toronto, B.A. Sc. Electrical Engineering 1949

CERTIFICATIONS

Province of Ontario	- P. Eng (Electrical)
State of California	- P. E. (Manufacturing)
ASQC	- Certified Quality Engineer
AWS	- Certified Welding Inspector
Canadian Welding Bureau	- Approved Welding Engineer
ANSI N45.2.23	- Audit Team Leader (Joy Mfg Co)
SNT-TC-1A	- Level III PT) RT) Joy Mfg Co MT)

FORMAL COURSES & SEMINARS

Statistical Quality Control - ASQC, Cincinnati Section, 1968
Quality Control - ASQC, ETI, Milwaukee, 1973
Quality Control Management - University of Connecticut, 1974
Significance Testing & Rapid Data Analysis - ASQC, Akron - Canton Section, 1976
CQE Refresher Course - ASQC, Akron - Canton Section, 1978

EXPERIENCE

Joy Manufacturing Co, New Philadelphia, Ohio Division

Jan 1972 - Nov 1980 - Manager of Quality Assurance

Twenty percent of company's dollar volume is in Government work, involving MIL-Q-9858A or MIL-I-45200. Thirty percent is in nuclear products, requiring adherence to 10CFR50 Appendix B, and ANSI N45.2.

Responsible for training of inspectors, writing inspection instructions, training QA engineers, qualifying NDE personnel, welders, painters, and writing QA/QC procedures.

Oct 1969 - Jan 1972 - Manager of Engineering for Mechanical Products

Responsible for the Design of new products, maintenance of product line, failure analysis, assistance to Manufacturing and Sales.

Husky Products Inc, Florence, Kentucky (Subs. Brandy Corp)

Jan 1966 - May 1969 - Assistant Chief Engineer

Responsible for stress analysis, new product design, estimating jobs, tooling design and assistance to manufacturing. Initiated Quality Control System.

Trailmobile Inc, Cincinnati, Ohio (Div. of Pullman Corp)

Mar 1961 - Jan 1966 - Manager of Research & Development

Responsible for conceptual development of entire new product line, including stress analysis, design of mechanical components, and designing tests.

EXPERIENCE (Contd)

Highway Trailer Co, New York, New York

Mar 1960 - Mar 1961 - Director of Product Development
Responsible for development of entire new product line.

Canadian Trailmobile Ltd, Scarborough, Ontario

1957 - Mar 1960 - Chief Engineer
Responsible for design of new products, adaption of exiting products to special applications, failure analysis, customer liaison on special applications, and plant tooling.

T.H.S. Services Ltd, Rexdale, Ontario

1955 - 1957 - Partner & Chief Engineer
Special machinery fabrication and millwright firm.

Simoniz Company Ltd, Scarborough, Ontario

1953 - 1955 - Plant Manager
Responsible for installation of machinery, Manufacturing, Purchasing, Warehousing.

PROFESSIONAL SOCIETIES

Association of Professional Engineers of Ontario
American Society for Quality Control
American Welding Society
American Society of Mechanical Engineers

PAPERS

"Common Sense Makes a Quality Program" - Quality Magazine, April 1979
"What the QA Manual Should Cover" - Quality Magazine, August 1980
"Quality Improvement - How to Achieve It" - ASQC Seminar

1 DIRECT EXAMINATION

2 BY MR. MILLER:

3 Q Mr. Turnbull, do you have before you-- Well,
4 first of all, state your name.

5 A My name is Donald M. Turnbull.

6 Q By whom are you employed, sir?

7 A Consumers Power Company.

8 Q In what position?

9 A Site quality assurance superintendent in the
10 Midland Project Quality Assurance Department.

11 Q How long have you held that position, sir?

12 A Since November of 1980.

13 Q Prior to that time were you employed by Consumers
14 Power Company?

15 A No, I was not.

16 Q To whom do you report in Consumers Power Company?

17 A Quality assurance manager, Mr. Bird.

18 Q That's Mr. Walter Bird?

19 A Yes.

20 Q Mr. Turnbull, do you have before you a two-page
21 document that's entitled "Donald M. Turnbull" and is a resume
22 of your professional experience?

23 A I do.

24 Q Sir, is it accurate and correct as of November
25 19, 1980?

K9L18

1 A Yes, it is.

2 Q And since that time have you had any position
3 other than the job you just described with Consumers Power
4 Company?

5 A No, I have not.

6 Q Would you briefly describe for the record what
7 your job responsibilities are at Consumers Power Company?

8 A I'm responsible for the supervision of two--
9 three sections within the site group, which is a part of the
10 Midland Project Quality Assurance Department. My particular
11 groups consist of administration, quality assurance engineering
12 and inspection evaluation.

13 Q All right, sir. Mr. Turnbull, among your
14 responsibilities do you have any responsibility for the trend
15 analysis program conducted by Consumers Power Company?

16 A Yes.

17 Q Would you briefly describe what those responsi-
18 bilities are?

19 A The trend analysis program is a data gathering,
20 classifying and presentation mechanism which is conducted
21 by people in my department. It is my responsibility to see
22 that it is done well and that the results are useful.

23 Q Sir, would you describe briefly what trend
24 analysis is as you use that term?

25 A Yes. Things we call quality indicators, which

K9L19

1 consist of non-conformance reports, deviation requests,
2 audit finding reports, quality action requests, are issued
3 by various groups on the site, and in Ann Arbor and Jackson
4 too, by the way. There are four groups in Consumers Power
5 who may issue these quality indicators. Bechtel Power
6 Company may issue some. They do. Babcock and Wilcox Design
7 Corporation. All of those quality indicators are collected
8 within the department and they are classified as to, first,
9 the area or activity which is responsible for the problem
10 reflected by the quality indicator, and secondly, according
11 to the nature of the problem.

12 There have been 18 action areas and there have
13 been four different classifications of defect. The product
14 of this results in 72 different categories into which these
15 quality indicators can be placed.

16 Then the number of indicators each month is
17 entered onto a graphical record which shows the number each
18 month in each particular category, and by looking at it,
19 it is possible to tell visually whether there's been any signifi-
20 cant change in the level of activity.

21 Q Mr. Turnbull, I think you said that there has
22 been this sort of a program. Are you describing the program
23 that was in existence when you joined Consumers Power Company
24 in December 1980?

25 A Yes.

K9L20

1 Q Since that time, what responsibilities, if
2 any, have you had in evaluating that program and changing it?

3 A Well, I think a program of this sort has to
4 evolve with time and experience, and we have certainly been
5 looking at areas in which it could be improved.

6 Q And what has the results of your look at this
7 program been?

8 A Well, after about four months of analysis
9 and discussion within our department, we have come up with some
10 changes that we feel are very beneficial, and we incorporated
11 those changes into a program which will run concurrently with
12 the previous program until it's been proven that they are of
13 benefit.

14 Q Now, how many individuals in your department
15 are responsible for evaluating trends?

16 A Approximately 10.

17 Q And what is the title of these individuals?

18 A Well, there are some supervisors in the inspec-
19 tion evaluation department who are very familiar with what's
20 been going on in the plant that do the evaluation of some
21 areas, and there are also quality engineers who are familiar,
22 for example, with the activity of some of the subcontractors
23 who evaluate other areas.

24 Q All right, sir. Have you had occasion from
25 time to time since you joined Consumers Power Company to discuss

K9L21

1 trend analysis with these individuals?

2 A By all means.

3 MR. MILLER: I will now have as Consumers
4 Power Exhibit 8 a document marked entitled "Trend Analysis",
5 a six-page document.

6 (The document referred to,
7 was marked for identification
8 as Consumers Power Exhibit 8.)

9 Q (By Mr. Miller) Mr. Turnbull, I'd like to ask
10 you first if you have ever seen this document or the original
11 of it before?

12 A Yes, I have.

13 Q Can you tell me by whom this document was
14 prepared?

15 A It was prepared by me.

16 Q For what purpose, sir?

17 A These were prompting notes which I prepared
18 for myself in preparation for discussion of the trend program
19 with the supervisors in the department.

20 Q Can you give us an approximate date on which
21 you had this discussion with the supervisors in your department?

22 A I believe it was late March.

23 Q And what you refer to as prompting notes, did
24 you in fact discuss the subjects that are contained in these
25 notes with your supervisors?

K9L22

1 A Yes, I did.

2 Q And do you recall how long that discussion
3 lasted?

4 A Our meeting started, I know, at 7:30, because
5 that's our practice. In this case it went until some short
6 time after 11:00.

7 Q Without going through the document in detail,
8 could you just tell us what was the basic purpose of this
9 particular meeting with your quality control supervisors?

10 A The purpose was to try and identify any problems
11 which had been experienced by those who had the responsibility
12 of evaluating trends and analyzing them, to find out what might
13 be the causes of difficulty, if any, that existed in analyzing
14 the trends and understanding what the significance of the data
15 was.

16 Q Did your quality control supervisors indicate
17 any problem areas to you in this meeting in March of 1981?

18 A Well, by "problem areas," I think with every
19 job that they did they had areas in which they felt improve-
20 ment would be beneficial.

21 Q Would you describe those for us, briefly?

22 A Well, there were a number of them. I think it
23 was felt, for example, that the number of categories into
24 which defects were presently placed was insufficient. It was
25 necessary to place each defect in some category, but there were

K9L23

1 not categories to adequately describe all of the defects
2 they were running into.

3 Q Anything else besides that, sir?

4 A I believe that it was felt that there was a
5 lack of uniformity among this group in the way in which each
6 was analyzing the trend graphs that they were responsible for.

7 Q When you say "it was felt," was this a percep-
8 tion that you shared?

9 A Yes, I think I did.

10 Q All right, sir. At the conclusion of this
11 meeting was there any further action that was going to be
12 taken?

13 A Yes. We were all to think about it and have
14 another meeting a couple of weeks later.

15 MR. MILLER: I'd like the reporter to mark as
16 Consumers Power Exhibit 9 a document entitled "Discussion
17 Copy-Summary of Meeting on Trend Analysis, April 10, 1981."

18 (The document referred to,
19 was marked for identification
20 as Consumers Exhibit 9.)

21 Q (By Mr. Miller) First of all, Mr. Turnbull,
22 you are not shown as one of the attendees at this meeting,
23 is that correct?

24 A That's correct.

25 Q Can you identify for us who the individuals are

K9L24

1 who are listed under "Attendees"?

2 A Yes. Henry P. Leonard is or was at the time
3 the section head of the quality assurance engineering group.

4 T. K. Subramanian is a special projects group,
5 QAE.

6 Don Horn is the supervisor of the civil QAE
7 group.

8 Lee Howell is the supervisor of the mechanical
9 inspection evaluation group.

10 Ed Jones was the supervisor of the electrical
11 IE group.

12 Candy Chien is the technician who accumulates
13 the data and distributes it to these people for both the
14 application of the trend code and also the analysis.

15 Mike Schaeffer at that time was the supervisor
16 of the electrical quality assurance engineering group.

17 Sue Bandla is the supervisor of the administra-
18 tion department for which Candy Chien works.

19 Bob Sevo is the supervisor of the civil IE
20 group, the inspection evaluation.

21 John Decker is the supervisor of the welding
22 and non-destructive examination group, and Dennis Keating
23 is the section head of the inspection evaluation group.

24 Q Is this the summary of the meeting that was to
25 follow the meeting in March which you previously testified to?

K9L25

1 A Yes, that's right.

2 Q All right, sir. And did this document come from
3 your files?

4 A Yes, it does. It was prepared by Dennis
5 Keating.

6 Q All right. To the best of your knowledge, does
7 it accurately reflect the subjects that were discussed at the
8 meeting?

9 A Yes, it does.

10 Q Subsequent to the meeting that was held on April
11 10, 1981, did you have occasion to have yet another meeting?

12 A That's right.

13 Q On the subject of trend analysis?

14 A Yes.

15 MR. MILLER: I'd like the reporter to mark as
16 Consumers Power Exhibit No. 10 for identification those four
17 pages of handwritten notes.

18 (The document referred to,
19 was marked for identification
20 as Consumers Exhibit 10.)

21 (Continued on next page.)

22

23

24

25

1 Q (By Mr. Miller) Mr. Turnbull, is that document
2 in your handwriting?

3 A It is.

4 Q Could you tell us for what purpose it was
5 prepared?

6 A Again, it was a set of notes to myself in
7 preparation for the next meeting, that took place after the
8 April 10th meeting.

9 Q All right. Would you read numbered paragraph
10 2 on the first page, into the record, please?

11 A "Still defect on the part of some, that the
12 trend program is a waste of time, although can't
13 always tell if comments in it are serious or in jest.
14 However, to those of you who still feel that way,
15 let me put it to you this way. The trend program
16 is something which is wanted by those who pay us our
17 salaries. It is of use to them, and it is part of
18 our job to produce it."

19 Q Now, I notice that there is a line drawn through
20 that paragraph. What does that line indicate?

21 A That line represents my decision, prior to the
22 meeting, that this was a negative way to present the subject,
23 and I would delete that from the material that I actually
24 used in the meeting.

25 Q Now, following this meeting, did you prepare a

1 memorandum to your superiors in the Quality Assurance Depart-
2 ment regarding improvements in the trend analysis program?

3 A. Yes, I did.

4 MR. MILLER: I'd like the reporter to mark as
5 Consumers Power Exhibit 11 a memorandum from Mr. Turnbull to
6 Messrs. Bird, Marguglio and Dietrich, dated May 19, 1981;
7 Subject: Trend Program Phase III.

8 (The document referred to was
9 marked for identification as
10 Consumers Exhibit 11.)

11 Q (By Mr. Miller) Mr. Turnbull, is Consumers
12 Power Exhibit 11 for identification the memorandum to which
13 you just referred?

14 A. Yes, it is.

15 Q And for what purpose did you prepare this
16 memorandum?

17 A. To point out to those who had responsibility
18 for establishing the policies--the quality policy of the
19 Company, that there were areas which had been discussed
20 extensively and in which improvements could be made.

21 Q Now, have you had an occasion to review a
22 document which, I believe, is in the record as Staff Exhibit
23 No. 2? That is, the inspection report, prepared by the NRC--
24 I'm sorry, Staff Exhibit 1--that was prepared following the
25 inspection at the Midland site by the Region III inspectors,

1 was it not?

2 A. Yes, I've seen it.

3 Q. Would you turn to page 19 of the report. In
4 the paragraph above the number 3, the one that starts, "After
5 the above findings were brought to the attention..." and so
6 on--

7 A. Yes.

8 Q. --are you the Consumers site quality assurance
9 superintendent who is identified in that paragraph?

10 A. Yes, I am.

11 Q. With whom did you have this conversation?

12 A. Mr. Gene Gallagher.

13 Q. All right. And the sentence goes on to say,
14 or the paragraph goes on to say that you "produced a memo
15 dated May 19, 1981 which identified further weaknesses" in the
16 trend program. But what I want to establish is, is Consumers
17 Power Exhibit 11 for identification the same May 19 memo which
18 is referred to in Staff Exhibit No. 1, this inspection report?

19 A. Yes.

20 Q. Now, the inspection report, on page 19, in that
21 paragraph, concludes by saying, "This memo proposed a revision
22 to MPQAD Procedure M-2."

23 Was such a revision to the procedure undertaken?

24 A. What we did instead was to produce another
25 procedure, which described the new program, with the intent

1 that it be run concurrently with the procedure M-2, because
2 we did not want to discontinue M-2 until it was established
3 that the new procedure was going to be much better.

4 Q Would you describe for us, what are the important
5 features of the new program that's going to be run in parallel
6 with the pre-existing program?

7 A In the first place, instead of four categories
8 of defects, there are eight, which provides a much better
9 matrix into which the people who classify these defects--they
10 will find it easier to find a place to put them.

11 Secondly, the provides more definition of the
12 categories themselves, the types of things which fit in each
13 category.

14 Thirdly, it defines the thinking process to be
15 used during the analysis of the trend, in order to improve
16 the uniformity with which the trend analyses are made.

17 MR. MILLER: I would like the reporter to mark
18 as Consumers Power Exhibit 12 for identification, a document
19 that bears, on the cover page, "MPQA Site Operating Manual,
20 Procedure No. SOM-2," dated 6-16-81.

21 (The document referred to was
22 marked for identification as
23 Consumers Exhibit 12.)

24 Q (By Mr. Miller) I ask you whether this is the
25 procedure to which you just testified?

1 A. It is.

2 Q. Mr. Turnbull, just two more brief questions.

3 Is there such a document as a truncated

4 prioritized list of NCR's?

5 A. Yes. It is a truncated list of all the quality
6 indicators, not just NCR's.

7 Q. And are you responsible for issuing such a
8 list?

9 A. Yes.

10 Q. To whom does that list go?

11 A. It goes to top management people, which includes
12 Mr. Rutgers, Mr. Cook, pretty well all of the, what is called
13 the project team members. That would include the site
14 manager, both Bechtel and Consumers Power; the project
15 engineer; I believe Mr. Keeley gets a copy.

16 Q. And for what purpose is this truncated priori-
17 tized list of quality indicators developed?

18 A. The purpose is to bring to the attention of
19 top management who are in a position to exert influence on
20 the speed with which problems are resolved, those problems
21 which are considered to be the most pressing.

22 It also has a second purpose, in that it shows,
23 through a computer program which prints a figure opposite
24 each item, which reflects both its age and its importance.
25 The sum of these figures for all of the open items in each

1 area, is an excellent measure of the work that has to be done.

2 MR. MILLER: I have no further questions of
3 Mr. Turnbull at this time.

4 I see that I've really loaded up the record
5 with some clearly complex testimony and a number of exhibits.
6 Mr. Turnbull informed me that he will be in Midland the
7 second week of our next session, and while he's certainly
8 available for cross-examination now, I would have no objection
9 to asking him to return. He's been very accommodating.

10 DR. COWAN: I was just telling the Chairman
11 that this is a subject that I'll probably have more questions
12 on than most of what's gone before, and I would very much
13 appreciate the chance to review these documents and to question
14 him in regard to the computer control and the categories
15 involved, and things like that. I do consider it important,
16 because what he's been describing represents one phase of the
17 changes that have occurred in the last limited period of
18 time, which is quite pertinent to what we are talking about.

19 I think perhaps the other members of the Board
20 have similar views.

21 CHAIRMAN BECHHOEFER: If the parties wish to
22 start cross-- Well, if you prefer not to undertake that, we
23 could save all cross-examination until-- Do you wish to move
24 into evidence these exhibits?

25 MR. MILLER: Yes, that is correct. I would like

1 to have received into evidence, Consumers Power Company's
2 Exhibits 8 through 12, which have been marked for identifica-
3 tion.

4 MR. PATON: No objection, Mr. Chairman.

5 MS. STAMIRIS: No objection.

6 CHAIRMAN BECHHOEFER: Without objection, those
7 documents will be entered into evidence.

8 (The documents referred to, here-
9 tofore marked for identification
10 as Consumers Exhibits 8 through
11 12, were received in evidence.)

12 CHAIRMAN BECHHOEFER: Actually, the Board thinks
13 it would probably be better for all parties to save their
14 cross-examination. The record will be a little less messy,
15 and the parties can also prepare much better if they have had
16 a chance to look at these documents.

17 Before we adjourn, could the Applicant and the
18 Staff at least briefly review the matters which we will have
19 before us in the August session?

20 MR. MILLER: Yes. We would like to begin the
21 August session with Mr. Howell's testimony, and we will also
22 deal with the question of the dike, and response to Stamiris
23 Contention No. 2.

24 In addition, Mr. Rutgers, Mr. Dietrich and Mr.
25 Bird will appear. I think that's it.

1 MS. STAMIRIS: Mr. Miller, could you tell me
2 who will be addressing my Contention 2?

3 MR. MILLER: That would be, on our side, Mr.
4 Howell, Dr. Peck and Dr. Hendron.

5 CHAIRMAN BECHHOEFER: Who's the last one?

6 MR. MILLER: Hendron, H-e-n-d-r-o-n.

7 CHAIRMAN BECHHOEFER: Just as a matter of
8 inquiry, I take it-- We've received the direct testimony of
9 Mr. Howell and Dr. Peck, is that correct?

10 MR. MILLER: Yes. Dr. Hendron's testimony will
11 be filed by the 20th.

12 MR. PATON: Mr. Chairman, may I supplement that?

13 CHAIRMAN BECHHOEFER: Yes, I'd meant to ask you.

14 MR. PATON: We will have Mr. Gilray, with
15 respect to the quality assurance program, whose testimony
16 has been filed, and Mr. Miller requested that Mr. Howell
17 go first. We would request that the testimony concerning the
18 dike be taken up immediately after Mr. Howell, and that will
19 be Mr. Hari Singh.

20 MR. MILLER: We will endeavor to see what Dr.
21 Hendron's schedule is. I have every expectation that we
22 will be able to work it in, but we'll have to contact the
23 Board and the parties on that.

24 MR. PATON: I thought we had that agreement.
25 But, in any event, if every effort will be made to consider

1 dikes in the first week and hopefully, right after Mr. Howell.

2 CHAIRMAN BECHHOEFER: Let me inquire: Will Mr.
3 Howell be here, be available to be here separately, with
4 respect to Contention 2?

5 MR. MILLER: I don't know. His responses to
6 portions of Contention 2 are kind of intertwined in his
7 testimony. They really aren't set out separately. I will
8 inquire. Although, it would obviously be his preference to
9 appear once, and be cross-examined and then be excused.

10 CHAIRMAN BECHHOEFER: Maybe you and the Staff
11 can work out something with respect to the witnesses.

12 MR. DECKER: Has anyone as yet received any
13 advanced testimony from any witness of Mr. Marshall's?

14 MR. MILLER: No, sir.

15 MR. PATON: No.

16 MR. MILLER: He said that he was planning on
17 presenting witnesses in August.

18 MS. BROWN: The last word I heard from him was
19 that his consultants would be just that, and he'd probably
20 be cross-examining witnesses, and not pre-filing testimony.
21 But that remains to be seen. That's what he told me before he
22 left.

23 CHAIRMAN BECHHOEFER: I thought we gave him the
24 same date as the other parties to file prepared testimony.

25 MS. BROWN: Yes. I reminded him of that.

1 MR. MILLER: Perhaps we could excuse Mr.
2 Turnbull.

3 CHAIRMAN BECHHOEFER: Mr. Turnbull, you're
4 excused.

5 (Witness excused.)

6 CHAIRMAN BECHHOEFER: The Board would like to
7 mention one ruling which we had made, and which we hope not
8 to have to put in writing; but we are not going to accept
9 the statement of testimony that Ms. Sinclair sent in.

10 The Board does not wish to issue a direct ruling,
11 but we believe the material submitted is not relevant to what
12 we're considering here.

13 In addition, the gentleman who made the statement
14 will not be subject to cross-examination, so we do not think
15 it's appropriate to accept that as testimony.

16 For that reason, we are denying Ms. Sinclair's
17 motion.

18 I would appreciate it if the Staff would send
19 Ms. Sinclair a copy of the transcript page upon which this
20 ruling appears.

21 MR. PATON: We'll do that, Mr. Chairman.

22 CHAIRMAN BECHHOEFER: Is there anything further,
23 before we adjourn?

24 MR. MILLER: There's just the question as to
25 what time do we begin on Tuesday?

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CHAIRMAN BECHHOEFER: Tuesday, August 4, at
9:00 a.m.

I might say that on Wednesday, August 5th, we
cannot use this room until 9:30.

(Whereupon, at 3:45 p.m., the hearing was
adjourned, to reconvene at 9:00 a.m., Tuesday, August 4,
1981.)

- - -

This is to certify that the attached proceedings before the
Nuclear Regulatory Commission, Atomic Safety & Licensing Board
in the matter of: Consumers Power Company (Midland Units 1 & 2)

Date of Proceeding: July 17, 1981

Docket Number: 50-329 OL&OM/50-330 OL&OM

Place of Proceeding: Midland, Michigan

were held as herein appears, and that this is the original transcript
thereof for the file of the Commission.

Kathryn Powers
William E. Landon

Official Reporter (Typed)

Kathryn Powers

W. E. Landon

Official Reporter (Signature)