
In the Matter of:

CONSUMERS POWER COMPANY
(Midland, Units 1 & 2)

)
) DOCKET NOS. 50-329-OM
) 50-330-OM

DEPOSITION OF GILBERT SMITH KEELEY

DATE: October 23, 1980

PAGES: 1 thru 87

AT: Midland, Michigan

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NUCLEAR REGULATORY COMMISSION

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In the matter of: : Docket Nos. 50-329-OM
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CONSUMERS POWER COMPANY : 50-330-OM
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Nuclear Regulatory Commission
Midland Service Center
1100 South Washington Street
Midland, Michigan

Thursday, October 23, 1980

Deposition of GILBERT SMITH KEELEY, a witness

herein, called for examination by Counsel for the Nuclear
Regulatory Commission in the above-entitled matter, pursuant
to notice, the witness being duly sworn by Marilyn Shockey,
at the Nuclear Regulatory Commission, Midland Service
Center, 1100 South Washington Street, Midland, Michigan,
commencing at 8:15 o'clock a.m., Thursday, October 23, 1980,
and the proceedings being taken down by stenomask by Marilyn
Shockey and transcribed under her direction.

APPEARANCES:

On behalf of the Nuclear Regulatory Commission:

WILLIAM PATON, Esq.
BRADLEY JONES, Esq.
Nuclear Regulatory Commission
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Bethesda, Maryland

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On behalf of Consumers Power Company:

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ALSO PRESENT:

DARL HOOD,
NRC, Division of Licensing,
Bethesda, Maryland

BARBARA STAMISIS, Intervenor

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E X H I B I T S

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Whereupon,

GILBERT SMITH KEELEY

the deponent herein, called for examination by Counsel for the Nuclear Regulatory Commission, having been duly sworn by the Court Report, was examined, and testified as follows:

EXAMINATION BY COUNSEL FOR THE NUCLEAR REGULATORY COMMISSION

BY MR. PATON:

Q Would you state your name and business address, please?

A My name is Gilbert Smith Keeley.

Business address is Consumers Power Company, 1945 West Parnell Road, Jackson, Michigan.

Q Mr. Kelley, what is your present position with Consumers Power Company?

A My present position is Project Manager on the Midland Nuclear Plant.

Q Do you spend most of your time in Jackson, Michigan?

A Yes, I do.

Q Do you know whether, in the last two years, there has been any damage to the dike around the cooling pond at Midland?

A Yes, there has been.

Q Can you tell us how that came about?

1 A It came a.out due to ice damage on one side of the
2 dike during the winter, due to wind blowing the ice.

3 Q Does the word wave action have anything to do with
4 that damage, do you know?

5 A Wave action?

6 Q Is that a word or expression that is familiar to
7 you? Do you know what that means?

8 A Wave action, to my knowledge, usually means action
9 by the wind creating waves in a body of water.

10 Q Did that concept have anything to do with the
11 damage that you are discussing?

12 A I do not know. Based on my recollection it was a
13 combination of primarily ice blowing due to being carried by
14 wave action.

15 Q That damage was last winter, to your recollection?

16 A I believe it was last winter. Yes.

17 Q Was there any damage to the rip rap?

18 A The rip rap was moved around. If that is your
19 term damage, yes.

20 Q Did it cause -- did you make some repairs?

21 A No. The repairs haven't been made yet.

22 Q Do you recall what the velocity of the wind was
23 when the damage was done?

24 A No, I do not.

25 Q Was the wind a contributing factor to the damage?

1 A It is my understanding that the wind was a
2 contributing factor.

3 Q Would you describe the damage?

4 A I have not inspected the damage, as such. I
5 understand it is due to some of the rip rap being moved a
6 bit.

7 Q You say some of the rip rap was moved a bit.
8 Could it have been as much as 200 feet of rip rap?

9 MR. ZAMARIN: Before we go on, can you tell me how
10 this is related in any way?

11 MR. PATON: It is the dike.

12 MR. ZAMARIN: Doesn't this have to do with the
13 soils problem?

14 MR. PATON: That is what I am getting at. The
15 dike, the soils in the dike.

16 MR. ZAMARIN: Ice blowing against the dike is
17 somehow related to soils? I just don't see it.

18 MR. PATON: I would like the record to show that I
19 have started interrogation of Mr. Keeley about some damage
20 to the dike which I had couched in terms of rip rap. I have
21 just started my interrogation and I believe Mr. Zamarin is
22 now objecting to the interrogation.

23 If he has any objection I will let him place them
24 on the record. But I think it is not an appropriate
25 objection. I think it is interfering again with my line of

1 questioning. I think it is undue interference.

2 I think Mr. Zamarin interrogated our witnesses at
3 length about the dike and I see no possible or appropriate
4 objection to my interrogation at this point.

5 MR. ZAMARIN: That is because I haven't stated
6 it. I object to that line of questioning because it appears
7 to be clearly outside the purview of any interpretation or
8 conception of the issues in this hearing which relate to
9 soils. And you are talking about ice having possibly caused
10 damage to the rip rap on the dike. That simply has nothing
11 whatsoever to do with soils.

12 I have asked you to indicate to me how it has to
13 do with soils. We had a discussion off the record and you
14 were not able to do that. So I object.

15 If it has something to do with soils, sure, I
16 agree, you are entitled to ask him about it, but I haven't
17 seen that yet. Just because there is soil in the dike
18 doesn't mean that you are entitled to inquire about bird
19 droppings on it. That's all I've got.

20 MR. PATON: I do not recall up until your
21 statement any reference to bird droppings.

22 MR. ZAMARIN: I meant newel droppings.

23 MR. PATON: My interrogation had just begun and I
24 will continue and interrogate Mr. Kelley as to any
25 connection between the damage to the dike and/or the rip rap

1 and in connection with the soils problem.

2 BY MR. PATON: (Resuming)

3 Q Mr. Kelley, I believe my last question to you was
4 to describe the damage. Would you do that?

5 MR. ZAMARIN: Before we go on, I think you said
6 you were going to interrogate to establish a connection.

7 MR. PATON: That is why I am asking him questions
8 in that direction.

9 MR. ZAMARIN: Until you really have some
10 foundation --

11 MR. PATON: That is where I am going. If you don't
12 like that particular question, I can't help it, but that is
13 the direction I'm going.

14 MR. ZAMARIN: It is not the particular question.
15 We had the discussion off the record. Maybe we should have
16 it on.

17 Can you tell me in what way this rip rap damage is
18 related to the soils issue in the hearing?

19 MR. PATON: I want to ask Mr. Keeley questions in
20 that direction. I am now going to ask Mr. Keeley questions
21 that his answers may or may not connect the damage to the
22 soils problem. That is exactly where I am going with these
23 questions.

24 Is it your statement that I have to first
25 establish with you exactly where I am going so that you can

1 then permit me, whether or not I should proceed in that
2 direction?

3 MR. ZAMARIN: No, I don't want to know where you
4 are going. I want to know where you have been. It seems
5 that where you have been doesn't have anything to do with
6 soils, and I want to know if they have a connection. If so,
7 fine. That is perfectly legitimate.

8 MR. PATON: I would like the record to show that I
9 think I have just gotten started and I have been interrupted
10 so many times that I really haven't gotten very far with Mr.
11 Keeley on this subject yet.

12 But I would like to proceed to connect. I'm not
13 saying I can or cannot. I want to ask Mr. Keeley some
14 questions to see if there is a connection.

15 I have been told there is a connection and I would
16 like to interrogate Mr. Keeley. I don't think I have to
17 explain to you precisely what I have been told that leads me
18 to believe that there may be a connection.

19 MR. ZAMARIN: You have been told by Ray Gonzales
20 that there was a connection between the damage and the soils
21 in Midland?

22 MR. PATON: I understood his statement that way.
23 Yes.

24 MR. ZAMARIN: Go ahead. We will find out what Mr.
25 Gonzales has to say about this.

1 BY MR. PATON: (Resuming)

2 Q Mr. Keeley, would you describe the damage?

3 A As I indicated, I have not inspected the damage.

4 It is my understanding that there has been some rip rap

5 moved around due to the ice and wave action.

6 Q What is the purpose of the rip rap being where it
7 is?

8 A The rip rap was to provide protection against ice
9 or wind wave action to the soils in the dike.

10 Q The rip rap is to protect the soils in the dike
11 from what?

12 A From wind wave action, ice damage, any floating
13 objects that might be in the pond.

14 Q What I meant was, if you had wind or wave action,
15 or ice damage, what would happen to the dike?

16 I will rephrase my question. What is it
17 protecting it from? What would happen if it were not
18 protected? Answer the last question. What would happen if
19 it wasn't protected?

20 MR. ZAMARIN: Are you asking him for the specific
21 injury to the dike?

22 MR. PATON: I am asking him what would happen to
23 the dike if it wasn't protected.

24 MR. ZAMARIN: He has told you that.

25 MR. PATON: No, he hasn't.

1 MR. ZAMARIN: I think you are asking for the
2 specific injury.

3 MR. PATON: Mr. Zamarin, would you please stop
4 interfering with my interrogation. You have interfered
5 constantly.

6 All I want to do is to ask the witness. The
7 witness does not appear to be having any difficulty, and
8 your constant interruptions are, I think, unduly interfering
9 with my interrogation.

10 MR. ZAMARIN: I know you think that. I disagree
11 with you. I think I am right. That question has been asked
12 and answered.

13 BY MR. PATON: (Resuming)

14 Q Mr. Keeley, what was the rip rap designed to
15 protect -- strike that.

16 What would happen to the dike if it wasn't
17 protected by the rip rap?

18 A With wind and wave action, ice, such as that, it
19 would tend to slough off the surface of the dike.

20 Q Slough off the surface of the dike. Is that bad?

21 A Yes, it is bad.

22 Q Why is it bad?

23 A Because you would lose some surface volume of the
24 dike.

25 Q I am clear on that. Is that bad?

1 A Yes.

2 Q Why is that bad?

3 A Because eventually you could end up developing
4 leaks in the dike if you let it progress to a far enough
5 point.

6 Q Is the fact that the rip rap was moved around a
7 bit, in your opinion, an accurate description of the damage
8 to the rip rap?

9 MR. ZAMARIN: I continue to object to this whole
10 line of questioning as being wholly outside the scope. You
11 can answer if you have anything to say.

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

14 BY MR. PATON: (Resuming)

15 Q Do you consider that, what I recall your statement
16 to be, that the rip rap was moved around a bit? Is that in
17 your opinion an accurate description of the damage to the
18 rip rap?

19 A Based upon my knowledge, that is my
20 interpretation. Yes.

21 Q As Project Manager of Midland, is this type of
22 incident -- and I am talking about the damage to the rip rap
23 in this case -- reported to you?

24 A Yes.

25 Q How is it reported to you?

1 A It is reported to me usually verbally, and then I
2 receive copies, usually copies of correspondence concerning
3 the problem.

4 Q Was it reported to you verbally in this case?

5 A To the best of my knowledge, it was.

6 Q Did you also receive a written report?

7 A I don't remember whether I received a written
8 report or not.

9 Q Is the rip rap on the dike?

10 A The rip rap is on the slopes of the dike. Yes.

11 Q In your judgment -- strike that.

12 In your judgment, could the function of the rip
13 rap be affected by the quality of the soil in the slope of
14 the dike where the rip rap is?

15 A It is my opinion that it could not be.

16 Q Within the Consumers organization, who would be
17 most concerned with the damage? Who would be most directly
18 concerned with the damage to the rip rap?

19 MR. ZAMARIN: I will object to the form of the
20 question and the use of directly concerned being vague and
21 ambiguous.

22 MR. PATON: Can you answer the question?

23 MR. ZAMARIN: If he knows what it means, he can.

24 THE WITNESS: The responsibility of activities in
25 non-Q list areas for these construction activities on-site

1 rests with Tom Cooke and the organization that reports to
2 him.

3 BY MR. PATON: (Resuming)

4 Q Is there anybody below Tom Cooke in the
5 organization that would be concerned with this problem?

6 MR. ZAMARIN: I object to the form of the
7 question. You may answer if you can.

8 THE WITNESS: Don Sibbald reports to Tom Cooke and
9 has been the field engineer responsible for working with the
10 subcontractor on the dike, so he would be directly involved.

11 BY MR. PATON: (Resuming)

12 Q Do you know who placed -- what company placed --
13 the rip rap?

14 A No, I do not.

15 Q Do you know whether the fact that the dike -- I'm
16 sorry, that the rip rap has been moved around a bit has
17 caused any sloughing off of the surface of the dike, since
18 it happened last winter?

19 A There have been inspections and, based upon my
20 recollection, there has not been any damage to the soils.

21 Q Do you plan to make any repairs to the rip rap?

22 A Yes, we do.

23 Q What will you do?

24 A It is my understanding that the areas where the
25 rip rap has been moved around will be repaired by putting

1 larger rip rap in place.

2 Q Have you reached a conclusion that the rip rap
3 that was placed there originally was not as large as it
4 should have been?

5 A Based upon the results, or what has happened, yes.

6 Q Do you know when you are going to make those
7 repairs?

8 A It is my understanding they will be made late this
9 fall. Those are the plans.

10 Q Why do you wait to make those repairs?

11 MR. ZAMARIN: Again I object. Do you think you
12 have established a connection to the soils issue in this
13 case yet? We have been at it for 25 minutes and, again, I
14 find it difficult to believe as I sit here that someone who
15 is purportedly an expert within the NRC staff has indicated
16 a connection between the soils issue in this hearing and
17 this rip rap damage. That you are either unwilling or
18 unable to tell us, and you certainly haven't established it.

19 I don't think, based on that, that your motive is
20 appropriate in this deposition.

21 MR. PATON: Mr. Zamarin has challenged my motive
22 in this deposition. I don't think that Mr. Zamarin should
23 set himself up as the judge of my motive and interfere with
24 my interrogation.

25 I think if he believes my interrogation to be

1 improper that he should instruct the witness not to answer
2 the question and if the staff feels that the question should
3 be certified to the Licensing Board, we can do that.

4 I don't think it appropriate that you constantly
5 interfere. I will proffer for the record what to me seems
6 to be overwhelming clear as to the relevance of this issue,
7 even though I see no need to do that. I will do that.

8 I would again request that you terminate
9 interference with my interrogation, but I will proffer for
10 the record that the witness has stated that the rip rap is
11 there for the purpose of preventing their being a slouching
12 off of the surface of the dike and that if there was too
13 much of that there would be leaks in the dike.

14 You interrogated the staff witnesses about the
15 dike and now you are going to a lot of trouble to objection
16 to my interrogating the witness about the rip rap and the
17 stability of the dike.

18 MR. ZAMARIN: This is what I thought you perhaps
19 thought the connection was and --

20 MR. PATON: I would say I have not finished my
21 interrogation.

22 MR. ZAMARIN: You just stated what you think the
23 connection is.

24 MR. PATON: My next question would be whether the
25 slouching off would consolidate the soil that was not

1 properly compacted in the dike.

2 MR. ZAMARIN: There isn't, in my knowledge. And
3 there's been no sloughing off.

4 Let me also make a statement. You talk about
5 interrupting, and there is a difference between simply
6 interrupting and a lawyer doing his job. I think I know
7 what it is for a lawyer to do his job properly, and perhaps
8 you don't.

9 MR. PATON: I am convinced of the fact that you
10 think you know exactly what you were doing, Mr. Zamarin.
11 You have told us that over and over and over, and I will
12 stipulate that you think you know what you are doing.

13 MR. ZAMARIN: I think you have demonstrated that
14 you don't.

15 MR. PATON: And I will stipulate that you keep
16 jabbing at me, that you know or that I do. And I will
17 stipulate that that is clear in your mind.

18 MR. ZAMARIN: All right. And I will continue to
19 object when you ask improper questions.

20 BY MR. PATON: (Resuming)

21 Q Mr. Keeley, let me ask you this question.

22 Would the sloughing off of the surface of the dike
23 be accentuated if the soil in the dike was not properly
24 compacted?

25 MR. ZAMARIN: I object to the form of the

1 question. You can answer if you want. There is an
2 objection to the form of the question.

3 You refer to sloughing. I don't think there is
4 any foundation for that.

5 THE WITNESS: Would you repeat the question,
6 please?

7 MR. CAMARIN: Why don't you have her read it back?

8 (The pending question was read by the reporter.)

9 THE WITNESS: We assume that if there was no rip
10 rap on the dike and if you assume that the soil had not been
11 compacted, there would be a difference in the rate of
12 sloughing off.

13 BY MR. PATON: (Resuming)

14 Q Would this sloughing off be increased?

15 A Yes.

16 Q Do you know whether the soil on the dike was
17 properly compacted?

18 A It is my opinion that it was properly compacted.

19 Q What standard do you use in making that statement?

20 A Because we have had no evidence of settlement to
21 amount to anything on the dike.

22 Q You say to amount to anything. Has there been any
23 settlement?

24 A There was some indications in one corner, I
25 believe, of settlement. But that was some time ago and

1 since that time there has been no evidence of settlement.

2 Q Do you know if that indication of settlement was
3 reported to the NRC?

4 A It was reported to the NRC.

5 Q Am I correct that you stated that the reason that
6 you think it was properly compacted is that there has been
7 an indication since it was constructed that there was any
8 settlement? Is that accurate?

9 A That is correct.

10 Q Do you know what standard, if any, was used for
11 compaction when it was being built?

12 MR. ZAMARIN: I object to the form of the question.

13 THE WITNESS: Would you repeat the question,
14 please?

15 (The pending question was read by the reporter.)

16 THE WITNESS: I guess I would have to ask you what
17 is meant by standard.

18 BY MR. PATON: (Resuming)

19 Q Does the word have any meaning to you?

20 MR. ZAMARIN: I will object to that as being
21 argumentative. A standard is a flag. A standard is a
22 banner. A standard could be a spec. You asked him about
23 standards before when you indicated settlement. I don't
24 think that is an appropriate question. It is argumentative.

25 MR. PATON: Could you answer the question?

1 MR. ZAMARIN: No. There is no obligation for him
2 to try and guess as what you are asking him. If you have
3 something in mind on your question. He has indicated he has
4 a problem with the question. Rephrase it. If you can't
5 then move on.

6 MR. PATON: Mr. Zamarin, I would again request
7 that if you instruct your witness not to answer the
8 question. We don't need lengthy explanations.

9 MR. ZAMARIN: I will put whatever I want on the
10 record. Let's move on.

11 MR. PATON: Now you are objecting and interfering
12 with me again, and then instructing me to move on. Is that
13 correct?

14 MS. ZAMARIN: Yes, it is.

15 BY MR. PATON: (Resuming)

16 Q Mr. Keeley, what was your title when the dike was
17 being constructed?

18 A I had two titles, or two jobs, when the dike was
19 being constructed. I was Director of Engineering Services
20 and I was Director of Quality Assurance.

21 Q Can you tell me what year that was?

22 A I was Director of Engineering Services until
23 1973. Then, in late 1973 -- November, 1973 -- I was made
24 Director of Quality Assurance until July of 1975.

25 Q Can you tell me what years it was that the dike

1 was being constructed -- year or years?

2 A To the best of my knowledge, it was prior to 1975.

3 Q Did it take more than a year?

4 A Yes.

5 Q By that, you mean it was completed in 1975 or
6 before 1975?

7 A I believe it was completed before 1975.

8 Q Would it be accurate to say that approximately 200
9 feet of rip rap was moved around a bit, or disturbed?

10 A I do not know.

11 Q Why do you wait until the fall to repair it? Why
12 didn't you repair it right away?

13 A We have to get a subcontractor and get the stone
14 available, or the rip rap.

15 Q Am I correct that you see no immediate danger or
16 problem from the fact that the rip rap has been moved around
17 a bit?

18 A That is correct.

19 Q Does the dike around the cooling pond have any
20 safety function, in your opinion?

21 A No.

22 Q Does that include the portion of the dike
23 immediately adjacent to the inner pond?

24 A Yes.

25 Q Is the inner pond a Category One structure?

1 A Could you define what you mean by inner pond?

2 Q Do you know what I mean by the thirty-day pond --
3 the emergency pond?

4 A Yes.

5 Q The emergency pond. Is that a Category One
6 structure?

7 A Yes. That is a Category One. To me, a structure
8 normally is a building.

9 Q What would you call it? A Category One what?

10 A It is a Category One system.

11 Q Am I correct that your opinion is that no
12 malfunction of the dike could affect that Category One
13 system?

14 A That is correct.

15 Q Mr. Keeley, do you know the location of the
16 service water discharge lines in the area of the emergency
17 pond?

18 A I know the relative location. Yes.

19 Q What is that relative location?

20 A It is adjacent to the diversion dike. It runs out
21 on each side of the emergency cooling pond and on the north
22 side dike for the other line.

23 Q So there is one of these lines on both sides of
24 the emergency pond?

25 A Yes.

1 Q Is it your opinion that no malfunction or failing
2 of the dike could affect the service water discharge lines?

3 A That is my opinion. Yes.

4 (A brief recess was taken.)

5 BY MR. PATON: (Resuming)

6 Q Mr. Keeley, do you know of any studies on the
7 consequences of cooling pond dike failures?

8 A I'm not aware of any. No.

9 Q Is there rip rap around the entire cooling pond
10 dike?

11 A Yes.

12 Q Is it the same amount of rip rap all around the
13 dike? Or does it vary in places?

14 A I do not know.

15 Q Does the expression 1974 show cause proceeding
16 mean anything to you?

17 A Yes.

18 Q Did you testify at that proceeding?

19 A Yes.

20 Q Did you read the decision of the Licensing Board
21 which resulted from that decision?

22 A Yes, I did.

23 Q Did the Licensing Board quote you in their
24 decision?

25 A This I don't remember.

1 Q Can you tell me the substance of your testimony at
2 that proceeding?

3 A Could you define what you mean by substance?

4 Q Yes, sir.

5 What subject -- I will strike that question and
6 ask you a different question.

7 What subject did you address in your testimony?

8 A The subject was quality assurance, including the
9 Consumers Power Company quality assurance program.

10 Q What did you say about the quality assurance
11 program?

12 MR. TAMARIN: I will object to the form of the
13 question.

14 MR. PATON: All right.

15 Can you summarize your testimony?

16 THE WITNESS: I believe a summary would be to the
17 effect that we, Consumers Power Company, had reorganized and
18 built up a quality assurance group that had more manpower
19 than previously and had written up policies and procedures
20 to implement that quality assurance program. And that the
21 management was being directly involved in the program and
22 keeping up-dated on the program itself, including activities
23 in problem areas.

24 BY MR. PATON: (Resuming)

25 Q Are you aware of the fact that Consumers Power has

1 recently reorganized its quality assurance organization?

2 A Could you define the term recently?

3 Q Within the last two or three months?

4 A Yes.

5 Q Do you know whether, in that reorganization,
6 Consumers is taking the position that they now have more
7 manpower in its quality assurance organization?

8 MR. ZAMARIN: I object to the form of the question.

9 THE WITNESS: I don't know whether Consumers is
10 taking that position. It is my understanding that there is
11 more manpower directly under Consumers' control.

12 BY MR. PATON: (Resuming)

13 Q Do you know whether the claims that are being made
14 by Consumers with respect to its newly reorganized quality
15 assurance organization are very similar to the statements
16 that you made when you referenced your summarized testimony
17 in the 1974 show cause proceeding?

18 MR. ZAMARIN: I will object to the form of the
19 question when you ask him about claims.

20 THE WITNESS: I do not know what you mean by
21 claims.

22 BY MR. PATON: (Resuming)

23 Q Do you know what it is hoped will be achieved by
24 the new quality assurance organization?

25 A One thing I am aware of it is to achieve -- or two

1 things -- are the direct control and supervision of all
2 quality assurance on the job and to the prevention of
3 overlap between separate organizations.

4 Q Is the new quality assurance organization going to
5 have more manpower?

6 A It is going to have more manpower reporting and
7 under the direction of Consumers Power Company.

8 Q Will it have new policies and procedures?

9 A New policies and procedures will have to be
10 written and have been written, or are in the process of
11 being written to cover this. Yes.

12 Q Will top management at Consumers Power be more
13 closely involved with quality assurance activities than they
14 were prior to the reorganization?

15 A I do not believe so.

16 Q Will there be any difference under the new
17 reorganization with regard to the participation of top
18 management of Consumers Power?

19 A Not that I am aware of..

20 Q You are aware of the problem with respect to soils
21 at the diesel generator building?

22 A Yes, I am.

23 Q And are there problems with soils at other areas
24 of the power block?

25 A Yes. There is.

1 Q Do those problems, in your opinion, result from
2 improper implementaton of quality assurance procedures?

3 A I'm not sure what you mean by quality assurance
4 procedures. That is a rather broad term.

5 Q Did you have a quality assurance program
6 applicable to the placement of those soils?

7 A Yes.

8 Q So you had a quality assurance program applicable
9 to the placement of the soils?

10 A Yes.

11 Q Under that program, were there certain procedures
12 that were to be followed to assure that the soils were
13 properly placed?

14 A Yes.

15 Q Were those procedures always followed?

16 A No. Not in its entirety. Not in their entirety.

17 Q Did the quality assurance program reveal that
18 errors were made in the testing and placement of soils?

19 MR. ZAMARIN: May I have that question read back
20 please?

21 (The pending question was read by the reporter.)

22 MR. ZAMARIN: I object to the form of the
23 question. The reason I am objecting is that placement -- I
24 don't know whether you are talking about where it was placed
25 or whether it was compacted properly, or what. It is on

1 that basis that I object to the form of the question.

2 BY MR. PATON: (Resuming)

3 Q Would you agree with the expression filling
4 operations as accurately describing the placing of the soils?

5 A No.

6 Q What word do you use to describe the placing of
7 the soils?

8 A To me, it is not only filling but also compaction.

9 Q Filling and compaction of the soils. Is that an
10 expression that you use?

11 A Yes.

12 Q Were errors made in the filling and compaction of
13 the soils in the power block area?

14 A Yes.

15 Q What kind of errors were made?

16 A I can't remember all of the errors that were
17 made. These were discussed by our quality assurance people
18 and with the staff in July of 1979, and were issued
19 subsequent to that meeting via a 50.55(a) report.

20 Q Can you tell me one of the two more significant
21 areas that you recall?

22 A Based upon my memory, I would say errors in
23 testing.

24 Q What were the errors in testing that were made?

25 A Again, based upon my memory, it was not using the

1 proper Proctor curves.

2 Q Whose error was that?

3 A That was U.S. Testing people during the testing.

4 Q Would proper implementation of your QA program
5 have detected those errors?

6 A I find that question difficult to answer because
7 the Consumers' QA program is to conduct surveillance and
8 audits. It is not to do the hands-on testing itself.

9 Q I realize that. My question is whether proper
10 implementation of Consumers' QA program would have revealed
11 that errors in testing had been made?

12 A Yes, I believe it would have.

13 Q Do you know why your QA program did not reveal
14 those errors?

15 A No, I do not.

16 Q When did filling and compaction of the soils --
17 in what year did filling and compaction of the soils begin?

18 A 1975.

19 Q What was your title at that time?

20 A Project Manager.

21 Q In 1975 how many people on the site spend 100
22 percent of their time on QA or QC work for Consumers Power?

23 MR. ZAMARIN: Do you mean employed by Consumers?

24 MR. PATON: Yes.

25 THE WITNESS: I believe at that time there were

1 approximately five or six.

2 BY MR. PATON: (Resuming)

3 Q What was the title of the person who was the top
4 of that group of five or six in responsibility?

5 A Jerry Corley.

6 Q Am I correct that you were Director of Quality
7 Assurance until July of 1975?

8 A That is correct.

9 Q You have testified that proper implementation of
10 your QA program would have revealed the inadequacies of the
11 tests and that that led to the soils problem that now exists
12 at the site. Is that an accurate statement?

13 MR. ZAMBIN: I will object to the
14 characterization. One, I don't think anyone has talked
15 about inadequacies of the tests. There were errors in
16 testing we were talking about.

17 MR. PATON: I agree.

18 BY MR. PATON: (Resuming)

19 Q Mr. Keeley, you testified that there were errors
20 in testing the soils.

21 A Yes.

22 Q You testified that proper implementation of your
23 own QA program would have detected these errors. Is that
24 right?

25 A Yes.

1 Q I asked you why implementation of your QA program
2 did not detect these errors. Am I correct that you said you
3 did not know?

4 A That is correct.

5 Q Does that indicate to you any breakdown in
6 implementation of your QA program?

7 A You asked me if I knew. I said no because I was
8 not responsible for QA during this period, so I can't answer
9 the question.

10 Q You were Director of Quality Assurance until July
11 of 1975?

12 A That is correct.

13 Q And then your title became Project Manager?

14 A That is correct.

15 Q Did you ever, at any time, determine why your QA
16 program did not detect the errors in testing the soils?

17 MR. ZAKARIN: By you you are referring to Gil
18 Keeley as opposed to --

19 MR. PATON: Did you? Did you ever personally?
20 Did you, Mr. Keeley?

21 THE WITNESS: No, I did not.

22 BY MR. PATON: (Resuming)

23 Q Did Consumers Power ever?

24 A Yes, I believe they did.

25 Q What did they determine?

1 A As I testified before, that was discussed with the
2 staff in the meeting in July. It was provided to them in
3 the detailed document issued as 50.55(e).

4 Q But that doesn't tell me. You are telling me that
5 there is an answer that exists on a piece of paper
6 somewhere. Do you know the reason that was determined by
7 Consumers Power?

8 A I cannot recall it without going to the document.
9 No.

10 Q You don't recall, for example, whether it related
11 to any breakdown in the QA program?

12 A I don't understand the relationship of that
13 question to the one that you previously asked.

14 Q I asked you why -- I will go back and do the whole
15 thing again.

16 You said there were errors in testing the soils.
17 You said that proper implementation of your QA program would
18 have detected those errors.

19 Now I am asking you, do you have any conclusion as
20 to whether that represents any kind of a breakdown in the QA
21 program?

22 MR. ZAMARIN: I think you asked that. And I think
23 he answered that.

24 THE WITNESS: I believe I already answered a
25 different type question that there was a problem in the QA

1 program. That it should have found that problem, in my
2 opinion.

3 BY MR. PATON: (Resuming)

4 Q You say there was a problem in the QA program.
5 Was that the only problem in the QA program with respect to
6 soils?

7 MR. ZAMARIN: I object to the form of the
8 question. You can answer it.

9 THE WITNESS: I can't answer that because I wasn't
10 involved in the details of evaluating the QA program on
11 soils.

12 BY MR. PATON: (Resuming)

13 Q Mr. Keeley, you are the Director of Quality
14 Assurance on the site until 1975 and you then became the
15 Project Manager. You remained on the site 100 percent of
16 your time at that time -- during 1975?

17 A I've never been on the site 100 percent of my time.

18 Q For the last half of 1975, when you were the
19 Project Manager, how much of your normal working hours were
20 spent on the working site? What percentage of your working
21 hours were spent on the site?

22 A 20 percent.

23 Q In subsequent years, since 1975 until now,
24 approximately what percent of your time is spent on the site?

25 A Approximately 15 percent.

1 Q Your statement is that there was a problem with
2 the QA program with respect to testing soils. Is that
3 accurate?

4 A That is accurate, and it is based upon my
5 knowledge of what was discussed with the staff and presented
6 in the 50.55(e) report.

7 Q But is it accurate that you do not know of any
8 other problems in the QA program except the one we have just
9 been discussing, since July of 1975?

10 A I don't know what you mean by problems in the QA
11 program.

12 Q You used the word, sir. You said there was a
13 problem in the QA program.

14 A But you only addressed that to soils. Now you
15 have opened it up to problems in the QA program.

16 Q You said there was a problem with the QA program
17 with respect to soils. What was that problem?

18 A I testified before that I felt the problem was in
19 the testing area and other problems in the QA program with
20 respect to soils had been discussed with the staff and
21 provided to them in the 50.55(e) report.

22 Q I am asking your knowledge as to what those other
23 problems were.

24 MR. ZAMARIN: That has been asked and answered.
25 He testified he doesn't recall. He can't recall without

1 going to the 50.55(e) report.

2 MR. PATON: Okay. Is that your answer?

3 THE WITNESS: Yes.

4 BY MR. PATON: (Resuming)

5 Q Does that answer apply to a period in time, July,
6 1975 through the present time?

7 MR. ZAMARIN: I will object to the form of the
8 question. It is so vague.

9 MR. PATON: He gave me an answer. I asked him
10 does that apply to the July, '75, to the present.

11 MR. ZAMARIN: Does what apply? That he can't
12 recall?

13 MR. PATON: Yes, that he can't recall any other
14 problems with the QA program -- that he does not personally
15 remember.

16 THE WITNESS: Again, I would have to ask you what
17 is meant by other problems with the QA program.

18 BY MR. PATON: (Resuming)

19 Q Mr. Keeley, I thought you just said to me a minute
20 ago that you didn't remember any other problems with the QA
21 program.

22 A I said I did not remember any other QA problems
23 with respect to the soils.

24 Q Right. I will limit this to soils.

25 I am asking you, do you remember any other QA

1 problems with respect to soils, with the exception of the
2 one you mentioned about testing, since July 1975, of your
3 own recollection?

4 MR. ZAMARIN: Objection as to form. You may
5 answer it.

6 THE WITNESS: I do not remember any offhand. No.

7 BY MR. PATON: (Resuming)

8 Q Mr. Keeley, are you an officer of Consumers Power
9 Company?

10 A No.

11 Q Do you spend all of your normal working hours on
12 the Midland Plant -- on the Midland Plant? And by that I
13 mean are you assigned full-time to the Midland project?

14 A Yes.

15 Q Are there other people superior to you in the
16 Consumers Power Company that spend all of their time on the
17 Midland project? And by that I mean that they are assigned
18 full-time to the Midland project?

19 MR. ZAMARIN: By superior to him, do you mean
20 above him in the corporate hierarchy?

21 THE WITNESS: No.

22 BY MR. PATON: (Resuming)

23 Q Did you testify that the 50.55(e) report discussed
24 other problems with QA in the soils area?

25 MR. ZAMARIN: I object. If he did, it was asked

1 and answered.

2 MR. PATON: I can't argue with that.

3 THE WITNESS: I believe I testified that the
4 50.55(e) report addressed QA problems with respect to soils.

5 BY MR. PATON: (Resuming)

6 Q The 50.55(e) report addressed QA problems. Did
7 you ever read that 50.55(e) report?

8 A Yes.

9 Q Approximately how long ago?

10 A I read it when it was issued and I don't remember
11 the date when it was issued.

12 Q Did you read it more than once?

13 A Yes.

14 Q Did you read it more than twice?

15 A I don't believe so.

16 Q Do you know who prepared it?

17 A It was prepared by Consumers' QA. If you are
18 talking about the 50.55(e) report, that had to do with the
19 QA program problems.

20 Q Yes, sir.

21 Have you heard any dollar figures mentioned by
22 anybody in Consumers -- that works for Consumers Power, that
23 works for the Bechtel Corporation, as to the cost to remedy
24 the soils problem at the Midland site?

25 A Yes.

1 Q What is that figure, or what are those figures?

2 A I don't remember the exact figures that were
3 provided in answer to question 22 in part 50.54(f) answers.

4 Q Do you remember the approximate figures?

5 A I believe it was around \$15 million -- something
6 like that.

7 Q What is your recollection as to that \$15 million?
8 Did that address the total cost to remedy the soils problem
9 at Midland?

10 A No, that \$15 million was for the cost to remedy
11 what I would say the hardwood type fix. That does not
12 include any type of schedule delays, effects or cost of
13 money.

14 Q Do you have any estimate as to whether the soils
15 problem at Midland will cause any delay in construction
16 completion?

17 A Yes. I have an opinion.

18 Q What is that opinion?

19 A That opinion is that if we do not resolve the
20 fixes and start doing the work in 1981 it could affect the
21 scheduled completion date on the plant.

22 Q Affect it in what way?

23 A It could become a critical path item.

24 Q Do you know -- do you have an opinion as to
25 whether or not the soils issue will be resolved by 1981?

- 1 MR. ZAMARIN: I think he said resolve the fixes.
2 You asked a different question.
- 3 MR. PATON: I don't mean to change the question.
4 I will change that.
- 5 Do you have an opinion as to whether or not you
6 will be able to resolve the fixes by 1981?
- 7 THE WITNESS: No.
- 8 BY MR. PATON: (Resuming)
- 9 Q You don't have an opinion. Is that correct?
10 A That is correct.
- 11 Q In your opinion, is the staff's review of this
12 issue impacting your resolution of the issues?
13 A Yes.
- 14 Q Does Consumers Power have, to your recollection,
15 any figure that you used generally to indicate the cost of
16 delay of construction. For example, \$100,000 a day or any
17 figure like that?
18 A Yes. Consumers has a figure.
- 19 Q Can you tell me what that figure is?
20 A I do not remember the figure.
- 21 Q Mr. Keeley, do you know whether or not Mr. Horn
22 has any backlog of unresolved matters within his
23 responsibility?
24 A I don't know what you mean by unresolved matters.
25 Q Do you know what I mean by non-conformances?

1 A Yes.

2 Q Do you know what I mean by unresolved NRC items?

3 A Yes.

4 Q Do you know what I mean by NRC non-compliances?

5 A Yes.

6 Q Is there a difference between those last two items
7 that I read? Or are they the same thing?

8 A I would like to have those last two items repeated.

9 Q The last two were, number one, unresolved NRC
10 items, and, number two, NRC non-compliances. In your
11 opinion.

12 A In my view, an unresolved item with the NRC is
13 something that during their inspection they feel is a
14 potential infraction or something such as that which they
15 need more information on before they make that decision.

16 Q I might correct it. That item, for example, might
17 not turn out to be a non-compliance?

18 A That is correct.

19 Q Then I understand your answer to be that there is
20 a difference between the last two items, and I will read
21 them again if you like.

22 A No, there is a difference, in my mind. Yes.

23 Q Are these items that are under Mr. Horn's
24 responsibility?

25 MR. ZAMARIN: I object to the form of the question.

1 THE WITNESS: Do you mean all of these unresolved
2 items?

3 BY MR. PATON: (Resuming)

4 Q I mean does Mr. Horn have any responsibility with
5 respect to these three items?

6 A He does, in his area of responsibility. Yes.

7 Q Do you know what his area of responsibility is?

8 A To my knowledge, it is principally soils and
9 concrete.

10 Q Do you know whether he has a backlog in these
11 areas?

12 A I don't know what you mean by backlog.

13 Q Do you know whether Mr. Horn is now spending any
14 of his time within his area of responsibility on
15 non-conformances?

16 A One of his principal duties is to conduct audits,
17 surveillance over inspection, to write up non-conformances,
18 and then see that the corrective action is taken and the
19 non-conformance is closed out.

20 Q Do you know whether he is now spending any of his
21 time on that area of responsibility that you just described?

22 A As far as I know, he is. Yes.

23 Q Do you know whether he is up to date in that work?

24 A I do not know.

25 Q I want to do that for the other two. For the

1 unresolved NRC items, does he spend time on that subject?

2 A Yes.

3 Q Do you know whether he is now spending time on
4 that responsibility?

5 A I assume he is.

6 Q Do you know?

7 A No.

8 Q Do you know whether he has a backlog of unresolved
9 NRC items, and I'm not trying -- if you have trouble with my
10 word backlog, would you say yes or no for the record?

11 A Yes, I have trouble with what you mean by backlog.

12 Q Does he spend time on NRC non-compliances?

13 A I assume he does.

14 Q Do you know whether in fact he does?

15 A No, I don't.

16 Q Do you know whether he is now currently spending
17 time on NRC non-compliances?

18 A I assume he is.

19 Q Do you know for a fact whether he is or not?

20 A No, I don't.

21 Q Have you ever known whether or not, in fact, what
22 Mr. Horn is spending his time on within the last year.

23 MR. ZAMARIN: Could I have that read back?

24 (The pending question was read by the reporter.)

25 MR. ZAMARIN: I object to the form of the question.

- 1 MR. PATON: Strike the question.
- 2 BY MR. PATON: (Resuming)
- 3 Q Do you ever communicate directly with Mr. Horn?
- 4 A What do you mean by communicate directly?
- 5 Q Do you ever talk to Mr. Horn?
- 6 A Yes.
- 7 Q How frequently do you talk to Mr. Horn?
- 8 A Very infrequently.
- 9 Q Do you know what Mr. Horn does in his professional
10 responsibilities at the Midland site?
- 11 A Mr. Horn works for the Consumers quality assurance
12 department under the supervision -- the ex-supervision -- of
13 Mr. Corley and performs all the duties that are assigned to
14 him.
- 15 Q In your capacity as project manager of the Midland
16 site, what knowledge, in your opinion, should you have of
17 Mr. Horn's activities?
- 18 MR. ZAMARIN: I object to the form of the question.
- 19 THE WITNESS: Since quality assurance is not under
20 my supervision, I think I should have a general knowledge of
21 Mr. Horn's activities.
- 22 BY MR. PATON: (Resuming)
- 23 Q If Mr. Horn was having any difficulties in getting
24 his job done, is that the type of information you should
25 know?

1 MR. ZAMARIN: I object to the form of the question.

2 THE WITNESS: I guess I would have to know what
3 part of getting his job done, or what is the definition of
4 getting his job done?

5 BY MR. PATON: (Resuming)

6 Q If he were having any difficulties in
7 accomplishing his assigned tasks within the area of quality
8 assurance that he has, would you be interested in knowing
9 that?

10 MR. ZAMARIN: I object to the form of the
11 question. Do you mean as Project Manager should he know it?

12 MR. PATON: I will strike that.

13 BY MR. PATON: (Resuming)

14 Q Would you be interested in knowing and --
15 substitute as Project Manager -- should you have that
16 information?

17 A As Project Manager, I am interested in what QA
18 problems there are. Yes. But I'm not responsible for the
19 QA department nor their day-to-day activities.

20 MR. PATON: Why don't we take five minutes?

21 (A brief recess was taken.)

22 BY MR. PATON: (Resuming)

23 Q Mr. Keeley, I want to read to you -- I am marking
24 as NRC Deposition Exhibit No. 1 (Keeley, October 23, 1980),
25 a copy of Licensing Board decision 74-71 in the Midland case

1 as dated September 25, 1974.

2 (The document referred to was
3 marked NRC Deposition Exhibit
4 No. 1 for identification.)

5 BY MR. PATON: (Resuming)

6 Q Mr. Keeley, I want to read to you paragraph 75 of
7 that decision. It is on page 606. After I read it to you I
8 will show it to you so that you can read it, and then I'll
9 ask a question.

10 Quote, the attitude toward compliance with
11 Commission rules and regulations was set forth by Gilbert S.
12 Keeley, Director of Project Quality Assurance Department
13 Services. In response to a Board question as to why the
14 future implementation of the Midland quality assurance
15 program will be better than its implementation -- will be
16 better than its past implementation in terms of
17 effectiveness, unquote.

18 And that is followed with a quote -- with a
19 citation -- that the record at transcript 477.

20 Mr. Keeley, let me ask you to read that, please.
21 For now, you can read any other part of it you like, if it
22 is going to put it into context for you.

23 Do you remember the substance of your testimony at
24 that proceeding?

25 A I don't know what you mean by substance?

1 MR. FARNELL: I also believe you have asked him
2 once.

3 MR. PATON: I'm not sure he ever answered.

4 THE WITNESS: I did answer. I gave you a brief
5 outline of what I remember from my testimony.

6 BY MR. PATON: (Resuming)

7 Q This decision said you told them why future
8 implementation of Midland quality assurance program would be
9 better than past implementation. Do you agree that you told
10 them that?

11 A Yes.

12 Q Do you remember anything about why it would be
13 better? Essentially why it would be better?

14 A I believe I said because I was in charge of the QA
15 program, along with other reasons being that we had
16 proceduralized -- we had set up more manpower in the
17 organization.

18 MR. FARNELL: I also note that his testimony at
19 that hearing will certainly speak for itself.

20 MR. PATON: I now recall that Mr. Keeley did say
21 that.

22 BY MR. PATON: (Resuming)

23 Q Now, with respect to your present knowledge of the
24 soils problems at the Midland site, what is your opinion as
25 to how the QA implementation in 1974 and 1975 in the soils

1 area -- how did it work out, in your opinion?

2 MR. FARNELL: Could I have that read back, please?

3 (The pending question was read by the reporter.)

4 MR. FARNELL: I object to that question. There is
5 no foundation that the soils involved in the soils problem
6 were put down in 1974 and 1975.

7 MR. PATON: Can he answer?

8 THE WITNESS: When I was responsible for QA the
9 soils in the Q area under the diesel generator building had
10 not been placed.

11 BY MR. PATON: (Resuming)

12 Q Okay, Mr. Keeley. My question strikes me as very
13 simple and straightforward. You indicated that there were
14 QA problems in the filling and compaction of the soils. Is
15 that correct?

16 A Knowing what we know now there were QA problems in
17 primarily the testing area of the soils. Yes.

18 Q All I'm asking you is, with respect to your
19 statement to the Board.-- In the 1974 show cause hearing you
20 told the Board why future implementation of QA would be
21 better than past implementation. I'm asking you why, in the
22 remaining part of 1974 and 1975, how did that work out in
23 the soils area? To me that is quite straightforward.

24 MR. FARNELL: But your question before dealt with
25 the soils and the soils problem area. I stated, and I

1 believe it is correct, that the soils -- and Mr. Keeley said
2 the soils -- were not put down under the diesel generator
3 building in 1974 and '75.

4 MR. PATON: I didn't ask him about the diesel
5 generator building. All right. When were the soils with
6 which we are having problems -- when was the filling and
7 compaction work done?

8 THE WITNESS: It started the latter part of 1975.

9 BY MR. PATON: (Resuming)

10 Q How did the QA program work out in the soils area
11 with respect to the filling and compaction of soils that
12 began in the beginning of 1975?

13 MR. FARNELL: Are you going from 1975 up until the
14 time -- up until when?

15 MR. PATON: 1975, 1976 and 1977.

16 MR. FARNELL: I think if you read his resume you
17 will see he was not responsible in that area.

18 MR. PATON: I am asking him. He is the Project
19 Manager. If he doesn't know that is an acceptable answer.

20 THE WITNESS: It is my opinion that, based upon
21 the knowledge that we know now, based on the settlement
22 problems that were experienced, there were QA problems in
23 the placement and the testing of the soil.

24 BY MR. PATON: (Resuming)

25 Q Mr. Keeley, do you agree that you testified at the

1 show cause proceeding that future implementation of Midland
2 QA would be better than past implementation?

3 A I did.

4 Q Was it?

5 A Yes, it was. And, in fact, as a result of the
6 placement and testing problems that occurred and resulted in
7 the diesel generator building settlement problem we have
8 even a better QA program now than we had in 1974 and 1975,
9 because a part of QA is to upgrade your QA program based
10 upon previous experience where you have had problems, in an
11 attempt to prevent those problems from occurring in the
12 future.

13 QA is not a static program by any means.

14 Q Mr. Keeley, are you aware of a request from Mr.
15 Gallagher of Region III for Consumers to move some
16 information that relates to Consumers answer to staff
17 question 23 from Ann Arbor to the site?

18 A Yes, I am.

19 MR. ZAMARIN: Let me just state that I object to
20 this line of questioning as being irrelevant. But go ahead.

21 BY MR. PATON: (Resuming)

22 Q Have you agreed to move that information to the
23 site?

24 A No, I have not.

25 Q Can you tell us why you don't want to agree to

1 that?

2 A This is back-up information -- documentation
3 concerning the investigation in order to answer question
4 23. It is my understanding that this consists of
5 approximately three to four file cabinets of documentation.
6 I do not believe it is good practice to transfer this amount
7 of documentation to the site, since the principal
8 documentation control on that is in Ann Arbor.

9 Plus, the people who have been doing the work in
10 closing this answer out on question 23 are primarily
11 engineering people who are located in Ann Arbor, so that, in
12 my mind, any questions that Mr. Gallagher might have with
13 respect to the review that is being conducted that could
14 close out question 23 would be asked mainly of people who
15 are located in Ann Arbor.

16 It is also based on my experience in conducting
17 audits. We usually go to the area where the principal
18 source of documentation and the personnel involved with that
19 documentation are located.

20 Q Do you know if your reasons for not wanting to
21 transport that material were ever conveyed by anyone to Mr.
22 Gallagher?

23 A No. I do not know that.

24 MR. ZAMARIN: Could I ask a question?

25 MR. PATON: Yes.

1 MR. ZAMARIN: Was it ever related to you as to Mr.
2 Gallagher's stated reasoning for wanting them brought to the
3 site, as opposed to remaining in Ann Arbor for his review?

4 THE WITNESS: I saw a telecon record which
5 indicated he felt he would have trouble filling or getting
6 some kind of paperwork to get in to Ann Arbor. I am not
7 aware that this should be a problem, because the NRC has
8 been going to Ann Arbor previously and will continue to
9 conduct audits.

10 MR. ZAMARIN: Is it your understanding that that
11 paperwork was referring to the fact that going to Bechtel
12 would be like visiting a vendor and there was certain
13 paperwork he would have to fill out in order to do that?

14 THE WITNESS: Yes.

15 MR. ZAMARIN: Was there any other reason conveyed
16 to you as to why Mr. Gallagher wanted the records brought to
17 the site as opposed to remaining in Ann Arbor, other than
18 what you have just stated?

19 THE WITNESS: I heard that he felt that most of
20 the people that he would be asking questions of were at the
21 site.

22 MR. ZAMARIN: When did you hear that for the first
23 time?

24 THE WITNESS: Yesterday.

25 MR. ZAMARIN: You heard that from whom?

1 THE WITNESS: You.

2 MR. ZAMARIN: I was relating to something that Mr.
3 Gallagher told me for the first time yesterday.

4 BY MR. PATON: (Resuming)

5 Q Mr. Keeley, would you please tell us what your
6 responsibilities are as a Project Manager for the Midland
7 Project?

8 A My present responsibilities?

9 Q Yes, sir.

10 A As Midland Project Manager, my present
11 responsibilities include the areas of design, construction,
12 testing of the plant prior to systems going into service,
13 and administration of the various contracts Consumers has
14 with Bechtel, E & W, Dow Chemical.

15 Q You said you spend 20 percent of your time -- 15
16 or 20 percent of your time -- this way. How much do you
17 spend the balance of your time at Jackson?

18 A I would estimate I spend approximately 90 percent
19 of the balance of my time in Jackson.

20 Q What is your relationship to the quality assurance
21 activities at the site?

22 A My relationship to quality assurance activities at
23 the site is not direct reporting relationship or guidance,
24 but to be aware of what the quality assurance problems are.

25 Q You used the expression quality assurance

1 problems. By that do you mean problems within the quality
2 assurance program or problems detected or revealed by the
3 program?

4 A Both.

5 Q Do you feel that you are aware of the quality
6 assurance problems at the site?

7 A Yes.

8 Q Are there any quality assurance problems at the
9 site right now?

10 A I guess I would have to ask what is your
11 definition of problems?

12 Q That is your word, sir.

13 MR. ZAMARIN: It started out as yours.

14 MR. PATON: I asked him his relationship to
15 quality assurance. I am sure your answer was -- I wrote it
16 down -- to be aware of quality assurance problems. Do you
17 know what you mean by quality assurance problems?

18 MR. ZAMARIN: That is an improper question. I
19 object to it.

20 MR. PATON: Does the witness know what he means is
21 an improper question?

22 MR. ZAMARIN: You bet. Of course he knows what he
23 means. That is an improper question.

24 MR. PATON: Then we will stipulate that he knows
25 what he means. Let me ask him if he knows what he means.

1 What do you mean by that, sir?

2 MR. ZAMARIN: By what?

3 MR. PATON: By what? We have just been having an
4 exchange here about QA problems. I don't think this is
5 productive, Mr. Zamarin. I think this is some kind of a
6 procedure that doesn't lend itself to appropriate discovery.

7 MR. ZAMARIN: He asked you what you mean by QA
8 problems in the context of the question that you had. He
9 cannot tell you what you mean by that in the context of your
10 question. That is why he asked you to clarify the question.

11 MR. PATON: Are you directing him not to answer?

12 MR. ZAMARIN: I'm not aware of what question is
13 pending right now.

14 MR. PATON: If you could relax a bit you would be
15 aware of what the questions -- strike that.

16 BY MR. PATON: (Resuming)

17 Q Mr. Keeley, I asked you what your relationship to
18 quality assurance at the site was. Am I correct that your
19 answer was to be aware of quality assurance problems?

20 A That is correct.

21 Q Do you know what you mean by quality assurance
22 problems?

23 A Yes.

24 MR. ZAMARIN: That is an improper question. I
25 object to it.

1 MR. PATON: First you said he didn't know, then he
2 said he knew.

3 MR. ZAMARIN: That's right. But it is an improper
4 question.

5 MR. PATON: What do you mean by quality assurance
6 problems?

7 MR. ZAMARIN: That has been asked and answered.
8 You can go ahead and answer it again.

9 THE WITNESS: Quality assurance problems can mean,
10 in my mind, what non-conformances are being written, what
11 programmatic type problems there might be. Are there any
12 trends developing on non-conformances? That is my
13 interpretation.

14 BY MR. PATON: (Resuming)

15 Q All right, sir. Are there any quality assurance
16 problems of that nature at the site at the present time?

17 A Yes.

18 Q Could you tell us what they are?

19 A No, I cannot. I do not know what all of the
20 non-conformances are, for instance, because they are listed
21 on non-conformance reports.

22 Q Do you know how many non-conformances there are
23 now that are not resolved?

24 A I would have to ask what you mean by resolved?

25 Q All right. I will strike that.

1 Do you know how many non-conformances have been
2 written in the last three months?

3 A No, I do not.

4 Q Do you know approximately how many
5 non-conformances have been written in the last few months?

6 A No, I do not.

7 Q Do you look at the non-conformances?

8 A Yes, I do.

9 Q How frequently do you look at them?

10 A I get a copy of all non-conformances and look at
11 them as they come across my desk.

12 Q And you don't have any idea -- do you have any
13 idea how many were written in the last three months?

14 MR. ZAMARIN: That has been asked and answered.
15 He says he doesn't recall.

16 MR. PATON: First he said he didn't know how
17 many. Then he said he didn't know approximately how many.
18 Now I am asking him does he have any idea how many?

19 MR. ZAMARIN: That would be approximately how
20 many. You are asking him to guess and that is improper.

21 MR. PATON: Okay. Do you have any idea how many
22 non-conformances have been written in the last few months?

23 MR. ZAMARIN: That has been asked and answered. I
24 direct him not to answer.

25 MR. PATON: That is all. If you direct him not to

1 answer that is all we really need.

2 BY MR. PATON: (Resuming)

3 Q Do you have knowledge of any single
4 non-conformance that has been written in the last few months?

5 MR. ZAMARIN: I object to the form of the question.

6 THE WITNESS: Yes.

7 BY MR. PATON: (Resuming)

8 Q What was that?

9 A There was a non-conformance, for instance, written
10 on electrical equipment having dirt inside of the equipment.

11 Q Are there any programmatic problems existing on
12 the site in the program?

13 A The only ones that I am aware of are those
14 concerning the results of a recent MAC audit on our test
15 program manual.

16 Q What are they?

17 A I do not know off the top of my head. They were
18 in my opinion minor audit findings that had to do with
19 correcting some procedures in our test program.

20 Q What is MAC?

21 A MAC is a consultant company that Consumers hires
22 to conduct bi-annual corporate audit.

23 Q Did they file a report with you?

24 A Yes.

25 Q And your review of the report is what you are

1 referencing when you say there were minor problems?

2 A Yes.

3 Q Did they make any finding that they were minor
4 problems? Did MAC make a finding that they were minor
5 problems?

6 A The findings and non-conformances never indicate
7 whether they are major or minor.

8 Q Does MAC evaluate the problems at all, or do they
9 just report them?

10 A They report the findings as well as give an
11 evaluation to management of the status of the QA program.

12 Q They gave an evaluation in this report?

13 A Yes.

14 Q Can you summarize it?

15 A Not from memory, no.

16 Q The third area you mentioned under the heading of
17 QA problems was trends developing. Is that correct?

18 A Yes.

19 Q Can you explain to me what you mean by that?

20 A Part of the QA program is to take a look at the
21 type of non-conformances that are occurring and if you see
22 more than one, or a significant number, of non-conformances
23 it indicates there is a trend rather than it being an
24 isolated case.

25 Q Do you have any situations such as that at the

1 site now?

2 MR. ZAMARIN: Do you mean a trend developing, or
3 looking at things for trends?

4 BY MR. PATON: (Resuming)

5 Q Do you have what you consider to be any trends
6 developing at the site right now?

7 A Not that I am aware of.

8 Q Who is responsible for determining whether there
9 are any trends developing at the site?

10 A The manager of quality assurance.

11 Q Who is that, sir?

12 A Walt Bird.

13 Q Does he spend most of his time at the site?

14 A No.

15 Q Does he spend most of his time in Jackson?

16 A I believe he spends most of his time in Jackson.

17 Q I ask you were there any trends developing at the
18 site and I believe your answer was not to your knowledge.

19 Is that correct?

20 A Yes.

21 Q Are there any trends developing in Jackson?

22 A Not to my knowledge.

23 Q I am sorry. I asked you whether Mr. Bird spent
24 most of his time in Jackson, and if you answered it I forgot.

25 A I answered yes. To my knowledge he spends most of

1 his time in Jackson.

2 Q Is he assigned to spend one hundred percent of his
3 working hours on the Midland project?

4 A Yes.

5 Q Are there other people who spend most of their
6 time in Jackson who are assigned one hundred percent in the
7 QA organization in Jackson?

8 MR. ZAMARIN: Could I hear that back please?

9 MR. PATON: I may not have finished the question.

10 (The pending question was read by the reporter.)

11 MR. PATON: I will strike the question.

12 BY MR. PATON: (Resuming)

13 Q Are there people other than Mr. Bird in the QA
14 organization in Jackson who spend all their time on the
15 Midland project?

16 A Yes.

17 Q Would you name those people, please? That person
18 or persons?

19 A I do not know their names.

20 Q Do you know whether Mr. Marguglio is one of them?

21 A He is not one of them.

22 Q Do you have any idea how many persons there are of
23 that description other than Mr. Bird?

24 A I believe there are around two or three.

25 Q Do you ever talk to, write to, or otherwise

1 communicate with those people?

2 A The people who spend one hundred percent of their
3 time on Midland?

4 Q Yes.

5 A No.

6 Q Mr. Keeley, I believe you stated that part of your
7 responsibility as Project Manager was to be aware of QA
8 problems. How do you become informed of QA problems?

9 A I stated that part of it is coming through review
10 of non-conformances. In addition, I attend quarterly
11 management review meetings with the QA department.

12 In addition, I receive a copy of the QA
13 department's monthly report.

14 Q Okay. Aside from reviewing documents, who do you
15 talk to in Jackson for the purpose of being aware of QA
16 problems in Midland -- on the Midland project?

17 MR. ZAMARIN: I'm sorry. Could I have that read
18 back, please?

19 (The pending question was read by the reporter.)

20 MR. PATON: Can you answer the question?

21 THE WITNESS: Yes. I talked to Jim Cooke, Walt
22 Bird, and Ben Marguglio.

23 BY MR. PATON: (Resuming)

24 Q What is Mr. Marguglio's responsibility with
25 respect to Midland?

1 A Mr. Marruglio has, under his direction, a QA group
2 which is responsible for providing assistance to Walt Bird
3 for conducting audits. He provides manpower. In addition,
4 he is responsible for the corporate QA program and the
5 auditing of that program.

6 Q Is Mr. Jim Cooke a Vice President?

7 A Yes.

8 Q Do you know what percent of Mr. Cooke's time he
9 spends on the Midland project?

10 A Do you mean at present? I would estimate around
11 ninety percent.

12 Q Do you know how often he visits the site?

13 A Approximately once every two weeks.

14 Q What essentially is the difference between your
15 responsibilities to Midland and Mr. Cooke's responsibilities
16 to Midland?

17 A Mr. Cooke has directly reporting to him the
18 manager of quality assurance Walt Bird, the licensing group,
19 manager of licensing, and the manager of cost and scheduling.

20 Q With respect to QA problems at the site, as
21 between you and Mr. Cooke, who has primary responsibility to
22 resolve those problems?

23 MR. ZAMARIN: I will object to the form of the
24 question. You have an assumption in there that one of the
25 two is primarily responsible to resolve the QA problems. I

1 think that is contrary to previous testimony.

2 MR. PATON: I will ask him another question.

3 BY MR. PATON: (Resuming)

4 Q Do you have any responsibility to resolve QA
5 problems that are within your knowledge at the site?

6 A Yes.

7 Q What is that responsibility?

8 A That responsibility is if non-conformances or
9 audit findings are written on the project management
10 organization. Whereas we are responsible for taking
11 corrective action on that non-conformance. I have that
12 responsibility.

13 Q What if a non-conformance was written on something
14 other than project management? Do you have any
15 responsibility for that?

16 A No. No direct responsibility, because
17 non-conformances or audit findings are very clear and who
18 has the principal responsibility for taking corrective
19 action to close out that non-conformance or audit finding.

20 Q You mean the non-conformance or the audit finding
21 states specifically who is supposed to resolve it?

22 A Yes.

23 Q What would it state if the non-conformance was on
24 project management? Is that -- it would state that it was
25 to be resolved by project management. Is that what you mean?

1 A That is correct.

2 Q What kind of non-conformances are to be resolved
3 by project management -- strike that.

4 Are there non-conformances that don't have to be
5 resolved by project management?

6 A Yes.

7 Q Tell me what those are.

8 A These are non-conformance written on anybody --
9 Bechtel, B&W, subcontractors, other subcontractors.

10 Q A non-conformance written on Bechtel is something
11 different than a non-conformance written on project
12 management?

13 A It is only different from the standpoint that the
14 non-conformance or audit finding is based upon whether who
15 was responsible for the work activity and why it was
16 non-conforming and what corrective action should be taken.

17 Q By project management you mean Consumers?

18 A By project management I mean the personnel that
19 report directly to me. I believe that was the tone of your
20 question.

21 Q Are there Consumers people on the site who don't
22 report to you?

23 A Yes.

24 Q Who resolves a non-conformance written on
25 Bechtel? Somebody within Bechtel?

1 A That is correct.

2 Q Is it correct that you have responsibility to
3 resolve non-conformances written on project management?

4 A For the groups that report directly to me for
5 day-to-day direction.

6 Q Are there groups within project management that
7 don't report to you on a daily basis?

8 A Yes.

9 Q What are the groups that report to you on a daily
10 basis?

11 A I believe I testified to those previously. They
12 are the engineering group, the administrative group, and the
13 construction, pre-operational testing and operational group.

14 Q Who has responsibility to resolve non-conformances
15 on project management involving groups other than
16 construction, testing, or the groups that report directly to
17 you?

18 A It would be based upon how the non-conformance is
19 written. Whoever has conducted the work activity, and if
20 the non-conformance is written on that work activity it
21 would be the responsibility of that group to take corrective
22 action.

23 Q Okay. I understand.

24 Is Mr. Horn considered to be within the
25 construction group that reports directly to you?

1 A No.

2 Q Is he in any group that reports directly to you?

3 A No.

4 Q What group is he in?

5 A He is in the Midland quality assurance group?

6 Q Who is responsible for resolving non-conformances
7 within that area?

8 MR. ZAMBIN: In what area?

9 MR. PATON: In the QA area? Let me back up.

10 You said that Mr. Horn was not in any group that
11 reports directly to you.

12 THE WITNESS: That is correct.

13 BY MR. PATON: (Resuming)

14 Q He is in some other group?

15 A Yes.

16 Q He is in the QA group?

17 A That is correct.

18 Q Who does the QA group report to?

19 A They report to Mr. Cooke.

20 Q Does Mr. Cooke have responsibility to resolve
21 non-conformances written on that group?

22 A He has the responsibility to see that they get
23 closed out and is kept up to date on the status of them.
24 But, again, if the non-conformance is written on the group
25 that works for him, then the direct responsibility for

1 taking the corrective action rests with the group that the
2 non-conformance was written on.

3 Mr. Cooke, for instance, would not take the
4 corrective action to close something out that was written --
5 the non-conformance specifies what the problem is and who
6 was responsible for the work activity. It is that group or
7 person's responsibility to close that non-conformance out
8 and take corrective action.

9 Q You named certain groups that reported directly to
10 you. I am sure you are extremely familiar with them, but I
11 wrote them down. I thought you used different words each
12 time.

13 You used engineering. Do you equate that to
14 design?

15 A That is correct.

16 Q Which word do you use more frequently?

17 A I use the word engineering design. That should be
18 the proper term.

19 Q Okay. Engineering design. And it is proper to
20 say group? Engineering design group. Is that correct?

21 A That is correct.

22 Q Is it a construction group? There are four groups.

23 A Construction group.

24 Q The next one is testing of plant.

25 A That is correct.

1 Q You don't say testing of plant group, do you?

2 A I guess I term it a group. It is the
3 pre-operational test group.

4 Q Administration of contracts. What do you call
5 that group?

6 A The administrative group.

7 Q You are responsible for resolving non-conformances
8 written on project management for those four groups -- the
9 four groups we just named?

10 A Again, responsible for resolving non-conformances
11 rests with the person who the non-conformance is written
12 on. It can be written on a person or it can be written on a
13 group. It is up to me to see that the non-conformances are
14 closed out and give advice on closing them out.

15 MR. PATON: Let me have about two minutes.

16 (A brief recess was taken.)

17 BY MR. PATON: (Resuming)

18 Q Mr. Keeley, how long have you been employed by
19 Consumers Power Company?

20 A Since 1961.

21 Q Do you think that the soils problem that exists at
22 the Midland site now was caused in any way by the
23 incompetency of the people who participated in the filling
24 and compaction of the soils?

25 MR. ZAMARIN: I will object to the form of the

1 question.

2 THE WITNESS: I guess I would like a definition of
3 what is meant by incompetence.

4 BY MR. PATON: (Resuming)

5 Q Is it part of your job to determine the competence
6 of people who are employed by Consumers under your
7 supervision?

8 MR. ZAMARIN: The same objection as to form. You
9 are using the same word. He doesn't know what you are
10 asking. Do you mean the technical qualifications of
11 people? You are using the same word, asking another
12 question. He doesn't know what you mean by that.

13 MR. PATON: Do you have any trouble with the
14 question?

15 THE WITNESS: I would have to have it read back.
16 (The pending question was read by the reporter.)

17 MR. PATON: The witness indicated he was having
18 difficulty with the word incompetence. I am merely asking
19 him if the incompetence of the people who work for him is
20 not specifically within his responsibilities.

21 Now if he tells me he doesn't understand the
22 meaning of the word incompetence I will go on to the next
23 question.

24 MR. ZAMARIN: I have an objection as to form. He
25 may answer the question.

1 MR. PATON: Can you answer the question?

2 THE WITNESS: It is my responsibility to evaluate
3 the competency of the people who work directly for me.

4 BY MR. PATON: (Resuming)

5 Q Is the difficulty that you had the fact that I
6 used the word incompetence as opposed to competency? The
7 people who work for you? Okay.

8 Do you have an opinion whether the incompetence of
9 any of the people involved in the filling and compaction of
10 the soils in Midland caused the problem?

11 MR. ZAMARIN: Caused the problem? I will object
12 as to form.

13 THE WITNESS: Yes, I have an opinion.

14 BY MR. PATON: (Resuming)

15 Q What is that opinion?

16 A I don't think you can tie the cause of the problem
17 to a black-and-white incompetency of individuals. I think
18 it was more complicated than that and has been spelled out
19 in our answers in the QA area, which I previously pointed to
20 in 55.55(e).

21 Q Do you know whether anyone in Consumers Power
22 Company was reprimanded or any other adverse personnel
23 action taken because of the soils problem? Because of their
24 participation in the soils problem?

25 A I am not aware of any. No.

1 Q Could I ask you that same question as to Bechtel?

2 A Would you repeat the question, please?

3 (The pending question was read by the reporter.)

4 BY MR. PATON: (Resuming)

5 Q Have you heard from anyone that there was any
6 adverse personnel action taken by the Bechtel Corporation
7 against anyone who participated in the filling and
8 compaction of soils?

9 A I would have to ask what is adverse -- whatever
10 the word was after adverse.

11 Q Personnel action. You really don't know what I
12 mean by that?

13 MR. ZAMARIN: He asked you the question.

14 BY MR. PATON: (Resuming)

15 Q I'm just asking him. Your problem is you don't
16 understand that expression. Is that correct?

17 A Yes, that expression is rather broad.

18 Q Do you know of anyone who was reprimanded at
19 Bechtel in Midland in the soils area?

20 A I do not recall any direct reprimand.

21 Q Any indirect reprimand -- strike that.

22 Any reprimand of any kind?

23 MR. ZAMARIN: I object to form.

24 THE WITNESS: Again, the word reprimand is quite
25 broad in my opinion.

1 BY MR. PATON: (Resuming)

2 Q Mr. Keeley, do you know anybody at Bechtel that
3 was fired because of his participation in the -- his
4 participation in the filling and compaction of the soils at
5 the Midland site?

6 A No, I do not.

7 Q Do you know anybody who was transferred because of
8 his activities or participation in the filling and
9 compaction of the soils at the Midland site?

10 A No, I do not.

11 Q Do you know anyone at Bechtel that was told that
12 his decisions or any decision that he made during his
13 participation in the filling and compaction of the soils or
14 any of the work done by Bechtel that led to it -- that those
15 decisions were not correct?

16 A Yes.

17 Q Who was that?

18 A I don't think it was a specific person, but it was
19 the fact, one of the facts, that entered into one of the
20 causes that was not a soils engineer, a geotech-type
21 engineer on-site, one hundred percent of the time during the
22 soils placement.

23 Q You say somebody made a comment about the decision
24 that led to that situation. Is that what you are saying?

25 A No. I am saying that was one of the reasons were

1 listed in that 55.55(e) that could have been a partial cause
2 of the problem.

3 Q There was not a soils engineer at the site one
4 hundred percent of the time because of a decision that was
5 made at Bechtel. Is that correct?

6 A That is my understanding.

7 Q What you were talking about a minute ago. Did you
8 say someone told someone else that the decision that led to
9 that was wrong.

10 MR. ZAMARIN: No. I object. That was asked and
11 answered. You asked him that question and he referred you
12 to the 55.55(e) report.

13 MR. PATON: Can you answer it?

14 THE WITNESS: I would have to ask you to repeat
15 that.

16 MR. PATON: Strike it.

17 BY MR. PATON: (Resuming)

18 Q Okay, Mr. Keeley, I was asking you whether any
19 comments were made that anybody at Bechtel had made an
20 incorrect decision during the filling and compaction of the
21 soils at the Midland site. You responded with the fact that
22 there was not a soils engineer at the site one hundred
23 percent of the time.

24 Is there some connection between those statements
25 in your mind? *

1 MR. ZAMARIN: Could I hear that again, please?

2 (The pending question was read by the reporter.)

3 MR. ZAMARIN: I believe his response was fuller
4 than that and had more to it. If you want to refer to it, I
5 would like to go back on the record and hear his response to
6 that question.

7 MR. PATON: Response to what?

8 MR. ZAMARIN: You just quoted an answer that he
9 gave. You said he responded in a certain way. I would like
10 to hear his entire response, as long as you are asking him
11 about it.

12 (The response was read by the reporter.)

13 MR. PATON: There is a pending question now.

14 MR. ZAMARIN: I object to the form of the question
15 also on the grounds that it is a mischaracterization of the
16 previous question and answer.

17 THE WITNESS: Yes. I believe there is a
18 connection and -- in that somebody in the field made a
19 decision that a field engineer with soils experience met the
20 intent of there being a geotechnical engineer.

21 MR. PATON: Okay.

22 BY MR. PATON: (Resuming)

23 Q Have you heard from anyone that anyone at Bechtel
24 indicated that that decision that you have just described
25 was correct?

1 MR. ZAMAPIN: Let's have that one back, please.

2 (The pending question was read by the reporter.)

3 BY MR. PATON: (Resuming)

4 Q Mr. Keeley, if I amend that last question and say
5 incorrect instead of correct, do you have that question in
6 mind?

7 A Yes. This, again, was discussed as one of the
8 possible causes of the problem and was presented in the
9 answers. Not the answers but the 55.55(e) on the overall
10 quality assurance investigation on why the problem occurred.

11 Q You have just referenced the fact that there is an
12 indication somewhere that that decision was not the correct
13 decision. Is that correct? Is my statement correct?

14 A No. I do not remember a statement as such. That
15 is was an incorrect decision. I remember that it was a part
16 of why the problem could have occurred.

17 Q Do you know who made that decision?

18 A No, I do not.

19 (A brief recess was taken.)

20 BY MR. PATON: (Resuming)

21 Q Mr. Keeley, do you have an opinion as to whether
22 the compaction equipment used to compact the soils was
23 qualified before it was used to compact the soils?

24 MR. ZAMAPIN: Objection as to form.

25 THE WITNESS: Based upon my memory, the equipment

1 was qualified to compact the soils.

2 BY MR. PATON: (Resuming)

3 Q Your answer is that it was qualified to compact
4 the soils prior to the time it was used to compact the soils?

5 A That is my opinion based upon memory.

6 Q Mr. Keeley, do you know anything about an
7 agreement between Bechtel and U.S. Testing to toll the
8 statute of limitations?

9 A I do not know what toll the statute of limitations
10 means?

11 Q That is not what I asked you. I'll ask another
12 question.

13 Have you ever heard those words used with respect
14 to any agreement between Bechtel and U.S. Testing?

15 A I have not heard those words used.

16 Q To your knowledge, has Consumers Power identified
17 for the NRC the causes of the soils problem at Midland?

18 A Yes.

19 Q To your knowledge, did anyone within Consumers
20 disagree with those conclusions -- disagree with the stated
21 causes?

22 A Not to my knowledge. No.

23 Q To your knowledge, did anyone in Bechtel disagree
24 with those stated causes?

25 A Not to my knowledge. No.

1 Q Mr. Keeley, I asked you a minute ago about whether
2 you ever heard the words to toll the statute of limitations
3 in connection with an agreement between Bechtel and U.S.
4 Testing. Have you ever read those words in connection with
5 an agreement between Bechtel and U.S. Testing?

6 A I have read copies of letters concerning that, but
7 I don't recall the actual words.

8 Q Mr. Keeley, are you familiar with a Dr. Peck, who
9 was hired by Bechtel with respect to the diesel generator
10 building problem?

11 A Yes, I am.

12 Q Do you know what his recommendation is with
13 respect to the diesel generator building?

14 A I would like a little more specific definition of
15 with respect to the diesel generator building.

16 Q You don't know that I am referring to the
17 settlement problem with the diesel generator building?

18 A I assume that is what you meant.

19 Q There is a problem with the diesel generator
20 building with respect to settlement?

21 A There was a problem with the diesel generator
22 building with respect to settlement.

23 Q Did Dr. Peck, to your knowledge, make any
24 recommendation in the past with respect to any problem that
25 may have existed at the diesel generator building?

1 A Yes, he did.

2 Q Do you know what the recommendation was?

3 A Yes.

4 Q What was it?

5 A The recommendation was to place a surcharge on the
6 area and to also de-water the area.

7 Q Does Consumers Power agree that the recommendaton
8 made by Dr. Peck is appropriate?

9 A Yes, we do.

10 Q Did you conduct any investigation yourself as to
11 that recommendation, or did you just accept his
12 recommendation?

13 MR. TAMARIN: Do you mean you, Gil Keeley?

14 MR. PATON: You, meaning Consumers Power.

15 THE WITNESS: I don't know what you mean by
16 investigation.

17 BY MR. PATON: (Resuming)

18 Q Did you make any study yourself to see whether you
19 agreed with what he was recommending? You being Consumers
20 Power?

21 A We made no separate study, but we evaluated his
22 decision and depended upon his expertise to give us advice
23 in this area.

24 Q Did you make an independent conclusion yourself
25 that what he was advising was appropriate?

1 A I'm having trouble with the word independent
2 conclusion.

3 Q What I'm trying to get at is did you merely rely
4 on Dr. Peck, or did you make -- let me ask you this. Do you
5 believe he is correct in his recommendation?

6 A Yes.

7 Q What makes you think so?

8 A I believe he is correct because of his experience
9 and knowledge in the area.

10 Q Do you know why Bechtel hired Dr. Peck?

11 A Bechtel hired Dr. Peck because they considered him
12 one of, or the world's reknown expert in the area of soils,
13 and to get an independent consultant involved.

14 Q Do you have stop work authority at the Midland
15 project?

16 A Yes.

17 Q Have you ever exercised it?

18 A Yes.

19 Q Can you tell me the circumstances involved the
20 last time you exercised it?

21 A The last time I exercised it directly was when I
22 was Director of Quality Assurance and I believe concerned
23 installation of tendons in the containment building.

24 Q Did you ever seriously consider exercising your
25 stop work authority while the filling and compaction of the

1 soils work was progressing?

2 A No.

3 Q Mr. Keeley, I think you stated, just generally
4 speaking, that Dr. Peck's recommendation was to surcharge
5 and de-water. Did you have any input to that decision?

6 A Yes.

7 Q By that, do you mean that you provided information
8 to Dr. Peck in his considering the matter?

9 A No.

10 Q Can you tell me what you mean by you had input?

11 A I had input to evaluate in my mind which of the
12 alternatives that could be possibly be implemented to
13 correct the problem should be utilized.

14 Q Was one of those alternatives to remove the fill
15 that had been placed and start all over again?

16 A Yes.

17 Q Did you consider the dollar cost of that
18 alternative?

19 A Yes. There was an estimate made of that.

20 Q Do you have any idea what that was?

21 A I don't remember the figure. It was provided in
22 answer 22, I believe, to 50.54(f).

23 Q Did consideration of that dollar cost affect your
24 decisionmaking process in that regard?

25 A That, along with the recommendation of Dr. Peck

1 that the surcharge program would adequately correct the
2 problem.

3 Q Do you know when Dr. Peck made that decision?
4 Whether he was aware of the seismic design requirements for
5 the diesel generator building?

6 A It is my understanding that he was aware of the
7 seismic design requirements, because that also entered into
8 the decision on de-watering.

9 Q Do you know whether, since that time, the seismic
10 design requirements have changed?

11 A The seismic design requirements which the plant was
12 built to and which are specified in the FSAR and the PSAR,
13 it is my understanding, have been reevaluated and I am aware
14 of a letter from the staff concerning this subject.

15 Q Do you know whether Dr. Peck has been provided
16 that information?

17 A I do not know whether he has or has not.

18 Q Mr. Keeley, are you aware of any present lawsuits
19 between Consumers and Bechtel which relate to the soils
20 problem in this case?

21 A No, I am not aware of any.

22 Q Are you aware of any -- have you heard of any
23 contemplated lawsuits between Bechtel and Consumers in this
24 case?

25 MR. ZAMARIN: I will object on the ground that any

1 such inquiry would go into grounds that include privileged --

2 MR. PATON: Are you telling him not to answer?

3 MR. ZAMARIN: Of course.

4 MR. PATON: Well, if you just tell him not to
5 answer you don't need to explain. You have instructed him
6 not to answer that question?

7 MR. ZAMARIN: I have exerted the privilege which
8 means you can't require him to answer.

9 MR. PATON: And you are telling him not to answer?

10 MR. ZAMARIN: Well, sure.

11 MR. PATON: Yes or no. That is all it needs.

12 BY MR. PATON: (Resuming)

13 Q Did you ever become aware that there was a soils
14 problem in the area of the administration building?

15 A Yes.

16 Q Can you tell me when you became aware of it?

17 A I became aware of it sometime in 1977 when I
18 received a copy of a memo concerning that problem.

19 Q Do you know when anyone -- do you know when the
20 problem first occurred?

21 A Based upon my memory, it was sometime in 1977.

22 Q Do you know how many months elapsed between the
23 time the problem occurred and the time you first heard about
24 it?

25 A No, I do not remember that.

1 Q Do you know that it was more than two months?

2 A I can't remember that.

3 Q Do you know whether you heard about it -- strike
4 that.

5 Can you relate in any way to your knowledge the
6 extent of time between the time that this problem happened
7 and the time that you became aware of it?

8 A No, I cannot.

9 Q Do you recall ever saying that you were not aware
10 of the soils problem at the administration building until
11 after you became aware of the soils problem at the diesel
12 generator building?

13 A No, I don't remember saying that.

14 Q Do you know whether Consumers or Bechtel took any
15 borings or any other action to determine whether the soils
16 problem at the administration building was an isolated
17 problem?

18 A Yes. I believe there were some borings taken.

19 Q Do you know how many borings were taken?

20 A I believe there were two borings taken.

21 Q Were those taken by Bechtel?

22 A Those borings, I believe, were taken by a
23 subcontractor to Bechtel.

24 Q Do you know whether that was U.S. Testing?

25 A I do not believe it was U.S. Testing that took the

1 borings.

2 Q Do you recall right now who it was that took the
3 borings?

4 A No, I do not.

5 Q Do you consider that you have sufficient expertise
6 to judge whether two borings are adequate to determine
7 whether a soils problem at the administration building was
8 an isolated problem?

9 A I do not consider that I, personally, have the
10 expertise, but depended on somebody else for doing that
11 investigation.

12 Q Did you ever hear anyone at Consumers or Bechtel
13 state whether those two borings -- strike that.

14 I believe you stated that the borings were taken
15 on behalf of Bechtel. Is that correct?

16 A That is based upon my memory. I believe that is
17 the case.

18 Q Did Bechtel do anything else besides take two
19 borings to determine whether the soils problem at the
20 administration building was an isolated problem?

21 A They not only took borings but ran blow count
22 tests.

23 Q Did you ever heard anyone within Bechtel or
24 Consumers comment on whether Bechtel's investigation of the
25 soils problem at the administration building was adequate to

1 determine whether it was an isolated problem?

2 A I remember discussions with Tom Cooke on the
3 subject. And that we considered, based upon the flow counts
4 and the borings taken, that it was an isolated problem.

5 Q I want to make sure I understand. It was your
6 conclusion and Mr. Tom Cooke's conclusion at that meeting?

7 A It wasn't a meeting. It was just in verbal
8 conversation.

9 Q In the course of that conversation it was your
10 conclusion that the investigation was adequate to determine
11 that it was an isolated problem. Is that what you are
12 saying?

13 A Yes.

14 Q Taking into account now -- hindsight, and by that
15 I mean taking into account all the knowledge that you now
16 have, do you now consider that that investigation was
17 adequate?

18 MR. ZAMARIN: Let me object to the form. Do you
19 mean it was adequate based on what they knew at the time, or
20 assuming they knew at the time everything they know now?

21 MR. PATON: Just a minute. Let me try that.

22 BY MR. PATON: (Resuming)

23 Q Mr. Keeley, do you agree now, based on all the
24 knowledge that you now have, that in fact it was not an
25 isolated problem?

1 A Yes.

2 Q Do you agree that Bechtel came to the wrong
3 conclusion?

4 MR. ZAMARIN: I will object to the form of the
5 question.

6 MS. PATON: Do you want me to go through the whole
7 thing again? If you do, I will be glad to.

8 MS. ZAMARIN: This is in the framework of
9 knowledge -- based on knowledge that he has now.

10 MR. PATON: Off the record.

11 (A discussion was held off the record.)

12 BY MS. PATON: (Resuming)

13 Q Mr. Keeley, do you believe that, based on the
14 information Bechtel had at the time when they decided that
15 the soils problem at the administration building was an
16 isolated problem that they made the right decision?

17 MR. ZAMARIN: Could I hear that back, please?

18 (The pending question was read by the reporter.)

19 THE WITNESS: Yes.

20 BY MR. PATON: (Resuming)

21 Q If Bechtel had had at that time all the
22 information that they now possess, would they arrive at the
23 same decision?

24 A In my opinion, no.

25 Q Please tell us what information it is that makes

1 that difference.

2 A The additional information is that we have
3 experienced settlement in another area which we didn't have
4 before and, as a result of that settlement, we had to take
5 additional borings which showed the problems with the soils.

6 Q Is it your opinion that Bechtel took a sufficient
7 number of borings when they first addressed the problem of
8 the administration building?

9 MR. CAMARIN: That was asked and answered. He
10 said yes previously, unless you are asking him based on what
11 he knows today.

12 MR. PATON: Yes. Based on what you know today, do
13 you have an opinion as to whether Bechtel took enough
14 borings when they made their initial investigation of the
15 administration building for the soils problem?

16 MR. CAMARIN: And assuming Bechtel didn't have
17 that information then that we have now? Only by hindsight?

18 MR. PATON: No. That has nothing to do with that.

19 (A discussion was held off the record.)

20 BY MR. PATON: (Resuming)

21 Q Mr. Keeley, am I correct in stating that you said
22 that, based on the information Bechtel had at the time they
23 made their initial decision that the soils problem at the
24 administration building was an isolated problem, that they
25 made the right decision?

1 A Yes.

2 Q Do you think that the information that they had
3 available at that time was adequate to make that decision?

4 A Yes.

5 Q Do you think that sound engineering judgment
6 exercised at that time would have indicated that you should
7 take more borings than they took?

8 A No. I think sound engineering judgment was used
9 based on what they saw at that time.

10 Q The exercise of sound engineering judgment at that
11 time in fact turned out to give a result that was not
12 correct. Do you agree with that?

13 A Based upon subsequent events that is correct.

14 Q Mr. Keeley, were there any people within Consumers
15 or Bechtel who disagreed with Bechtel's conclusion that the
16 soils problem at the administration building was an isolated
17 problem?

18 A I'm not aware of anybody who disagreed with that.

19 MR. PATON: I have no more questions.

20 MR. ZAMARIN: We have nothing else.

21 MR. PATON: It is stipulated that NRC Deposition
22 Exhibit 2 is a resume of professional and educational
23 experience of Gilbert S. Keeley.

24 (Whereupon, at 1:10 p.m., the deposition was
25 concluded.)

NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

DEPOSITION OF GILBERT SMITH KEELEY

in the matter of: CONSUMERS POWER COMPANY

Date of Proceeding: October 23, 1980

Docket Number: 50-329-OM & 50-330-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.

Marilyn Shockey

Official Reporter (Typed)

Marilyn Shockey

(SIGNATURE OF REPORTER)