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IN THE MATTER OF:

THREE MILE ISLAND
SPECIAL INTERVIEWS

POOR ORIGINAL

INTERVIEW OF DONALD GENE ANDERSON

Place - Bethesda, Maryland

Date - Friday, September 7, 1979

Pages 1 - 82

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In the Matter of: :
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THREE MILE ISLAND :
SPECIAL INTERVIEWS :
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INTERVIEW OF DONALD GENE ANDERSON

6th Floor
Maryland National Bank
Building
7735 Old Georgetown Road
Bethesda, Maryland

Friday, September 7, 1979
1:10 p.m.

BEFORE:

FRED FOLSOM
FRED HEBDON

C O N T E N T S

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INTERVIEW OF:

EXAMINATION

Donald Gene Anderson

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P R O C E E D I N G S

Whereupon,

DONALD GENE ANDERSON

was called as a witness and, having first been duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. HEBDON:

Q On the record.

Have you read and do you understand the letter that Mr. Rogovin sent to you concerning this interview?

A Yes.

Q Do you have any questions or comments concerning that letter?

A No.

Q Will you please state your name?

A Donald Gene Anderson.

Q What is your current occupation?

A I am a principal inspector with the Vendor Section Branch, Project Evaluation Section.

Q What was your position in early 1979?

A The same.

Q How many people reported to you?

A None.

Q To whom do you report?

A Cliff Hale.

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Q What is his position?

A He's Chief, Program Evaluation Section.

Q All right. Would you describe your employment history, including your positions held at the NRC?

A Do you want me to give you a resume or --

Q That would be fine, and then if you could just briefly describe your employment, just to have it complete.

Q Okay. You want AEC and NRC or just NRC?

A Both.

Q Okay. 1965-66, I was employed by the AEC as a reactor inspector, Division of Compliance, Region II, Atlanta. My inspection responsibilities were the research reactors in that region and also, BONUS, which is in Puerto Rico and Carolina Tube Reactor, which is in South Carolina.

MR. HEBDON: For the record, this document is a personal qualification of Donald Gene Anderson and I would like to have it included in the record at this point.

MR. FOLSOM: Insert 1.

(Professional qualifications for Donald Gene Anderson was marked Insert No. 1 for Identification.)

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sls-3

1 THE WITNESS: Then, my present employment with NRC
2 began when the NRC began in January of 1975. And I was
3 originally a reactor inspector. I had responsibilities for
4 Arkansas-1, ANO-1. I was principal inspector on that plant.
5 I assisted in the other nuclear power plants in our region,
6 which are Fort Saint Brain, Cooper Plant in Fort Calhoun.
7 And I also was responsible for inspection of some research
8 reactors in Region IV.

9 Okay. Then, in 19 -- let me look at the book. Let's
10 see. In July of 1976, I transferred to the licensee contractor
11 vendor inspection program, which is now the Vendor Inspection
12 Branch, and was responsible for Westinghouse. I was principal
13 inspector on Westinghouse, principal inspector on NABASCO.
14 And I assisted other inspectors on inspections of the other
15 architect engineers and nuclear steam suppliers. My
16 responsibility in this position is to evaluate the quality
17 assurance programs of these architect engineering firms and
18 nuclear steam suppliers, in particular, their engineering
19 design activities.

20 BY MR. HEBDON:

21 Q All right. First of all, I'd like to ask you some
22 questions concerning an event that occurred at Davis-Besse in
23 September, 1977. I am particularly interested in any
24 knowledge of this incident that you may have had prior to the
25 accident at TMI, specifically, prior to March 29th, 1979. What

1s-4 1 knowledge did you have concerning the incident that occurred
2 at Davis-Besse on September 24th, 1977?

3 A The only knowledge that I had of that was a meeting
4 that I attended at Babcock & Wilcox because I'm now principal
5 inspector at Babcock & Wilcox. I attended a meeting at Babcock
6 & Wilcox. Let's see, February 14th, 1979, in which the
7 Davis-Besse transient was discussed.

8 Q Now, is this the Davis-Besse transient that was
9 discussed at that meeting? Do you recall specifically when
10 that transient occurred?

11 A No.

12 Q Do you have any -- is there any possibility that
13 that was a different transient that was referred to at that
14 meeting and not the one that occurred in September of '77?

15 A They discussed -- I am not sure of the date of the
16 transient that they were discussing.

17 Q All right.

18 A I know it had to do with -- it had to do with
19 pressurizer indicator loss at Davis-Besse, Toledo Edison plant.

20 Q There are two transients that occurred at Davis-
21 Besse that are of interest to us. One occurred on November
22 29th, 1977, and one occurred on September 24th, 1977. And I
23 believe that the one that they were referring to at that meeting
24 was the one that occurred on November 29th.

25 So, are you aware of other than the transient that

sls-5

1 was discussed at that meeting? Are you aware of any other
2 transients that occurred at Davis-Besse?

3 A No.

4 Q All right. Have you ever discussed concerns by
5 Mr. Kelly and a Mr. Dunn of B&W associated with that incident
6 in November of '77, or were there concerns about the adequacy of
7 pressurizer level of the indication or the adequacy of
8 instructions that would be given to operators concerning
9 pressurizer level indication?

10 A I don't believe I know a Mr. Kelly or a Mr. Dunn at
11 B&W. It's possible that in my sections of B&W, that I have
12 run across them, and obtained documentation as part of my
13 inspection routine. But I see maybe 200 people there, and I
14 don't remember, you know -- the ones that I have interviewed.

15 Q Mr. Dunn, I believe, works with ECCS Analysis Group.
16 In fact, I believe he is the head of that group.

17 A Okay. We conducted a series of inspections in
18 1978 that had to do with computer programs for ECCS Analysis.
19 But -- and I was scheduled to go to B&W for that meeting, which
20 I think was in August of '78. But, I had [REDACTED]

21 [REDACTED] so I was not able to attend. And I would have
22 probably met Dunn at that time, if I had gone, because I'm sure
23 if he's in charge of the ECCS Analysis Group, that they did
24 interview him.

POOR ORIGINAL

25 Q But, you have no knowledge of any concerns that were

1 raised by people at B&W concerning the instructions that they
2 had been given to the operators about how to interpret
3 pressurizer level?

4 A Not specifically. The only knowledge that I have of
5 that is the meeting of February 14th. They discussed this and
6 they discussed that the operators had manually run back the
7 controllers on the -- during this loss of level transient. They
8 had been manually running back the controllers on the charging
9 pumps for the primary reactor coolant system as part of a
10 method to raise level back in a pressurizer, after they had lost
11 level due to a rapid cool-down.

12 Q We'll get into this a little bit later on.
13 I am a little confused. Why were they running back the charging
14 pumps to regain level?

15 A No. No. They were running back the controllers on
16 the charging pumps, I guess, to increase the flow of the
17 charging pumps. Maybe it's the other way around. They were
18 increasing flow of the charging pumps to get more water into the
19 primary coolant system to raise the level in the pressurizers.
20 And they were doing this manually.

21 Q Are these the make-up pumps for the high pressure
22 injection pumps?

23 A They'd be the make-up pumps. The charging pumps for
24 the system. The high pressure safety injections are for action
25 conditions. These were just normal make-up that they were adding

sls-7

1 to the system. And they used these pumps to raise level in
2 the pressurizer.

3 Q During transients?

4 A Yes, sir. During this rapid cool-down transient that
5 they had been experiencing in some of these B&W plants.

6 Q Okay. You keep mentioning this meeting in B&W.
7 I'll get to that in a little more detail a little later. But
8 I'd like to try and cover some preliminaries first.

9 Were you aware of an investigation of concerns
10 raised by a Mr. Creswell of I&E, Region III?

11 A Not until February 14th, 1979.

12 Q You had no knowledge of it prior to that time?

13 A I didn't even know Creswell, no.

14 Q Now, how did you become involved in the meeting in
15 February?

16 A I was the principal inspector for Babcock & Wilcox.
17 We were notified by Region III that an inspection team was
18 coming in to meet B&W on the 14th to follow up on some
19 concerns I had had in Region III. And so, my management felt
20 that it would be appropriate that since I had scheduled inspec-
21 tion for that week, a regular inspection, that I take time off
22 from my regular inspection and sit in on the entrance meeting
23 and see what the purpose of that visit by the people of Region
24 III was.

25 Q Okay. Could you go ahead and describe your

1 involvement at that particular meeting?

2 A Yes. I attended the entrance meeting. And I guess
3 there were -- there must have been five plants or somewhere --
4 five plants, I guess, that were generic to the Davis-Besse
5 plant that were experiencing some of these same problems that
6 the Davis-Besse plant had. And the Babcock & Wilcox people
7 were there to present a chart presentation of the transients
8 that had been experienced.

9 And utility representatives were there from I think
10 all but one of the plants that were involved. And I attended
11 the meeting. The meeting was also attended by a Mr. Foster
12 and a Mr. Kohler from Region III. It was their responsibility
13 to be there for this particular meeting and follow up on what-
14 ever concerns there was about the transients.

15 And so, I had already been there from the day before,
16 because I started my inspection on the 13th, February 13th.
17 And then, I just took time out from my inspection on the
18 morning -- I notified the people from Babcock & Wilcox that
19 when they were ready to have the entrance meeting, to notify me
20 and I would like to be present for that.

21 So, I guess it was about 10:00 o'clock in the morning.
22 I had already been working a couple of hours on my normal
23 inspection routine when I was notified that the meeting was
24 about ready to start. So, I went down to the conference room
25 where it was being held and sat in on the entrance part of the

1s-9 1 meeting and some of the presentation that B&W, personnel were
2 supplying to Kohler and Foster. And also, to the utility
3 representatives that were there.

4 And I took some notes at the meeting. This would not
5 be a part of my regular inspection report because Foster and
6 Kohler were responsible for the meeting and for the presentation
7 by B&W. And I assumed that this information would be used in an
8 inspection report prepared out of Region III.

9 And my purpose in being there was just that I was
10 the principal inspector at B&W and it was kind of a coordination
11 thing for me to be there, to see, you know, what they were --
12 what sort of information they were looking for while they were
13 at B&W.

14 After the entrance meeting then, I -- it was noon or
15 it was just before lunch. So, Kohler and Foster and I went to
16 the cafeteria to eat together, and there was also a B&W
17 representative that was there at the table with us. But --

18 Q Excuse me. Do you recall who that person was?

19 A No. I don't have any idea who he was. Could have
20 been Stan Klein. I don't remember. But then, I had known
21 Kohler previously in one of NRC's DWR training programs that we
22 had had here, a two-week training program. And that was back
23 in '75 or '76 that I met him at one of those meetings. And I
24 guess I'd seen him once after that, and I can't remember
25 where, but it seems like I remember seeing him somewhere. Maybe

sls-10

1 he came to Region IV for a meeting or something.

2 I saw him there. But, it will be probably three
3 years since I'd seen him. So, we just renewed acquaintances,
4 you know, and then I didn't attend any of the other parts of
5 the meeting during the day. I went back to my inspection
6 activities, because I'm required to -- we follow an inspection
7 procedure in I&E, and I'm required to complete the requirements
8 of that procedure.

9 So, I had my own work to do. But, I did notify them
10 that when they had the exit meeting, that I would like to
11 attend the exit meeting to see if Kohler and Foster had findings
12 that they'd identified during this meeting or what kind of
13 resolution or the concerns, you know, or what have you.

14 Q What transpired at the exit meeting?

15 A I guess Kohler discussed what they had found at the
16 meeting and that they would document their -- the information
17 that they had gained in an inspection report. And that they
18 didn't have any findings, any items of noncompliance. And that
19 it was a routine exit meeting. There was, as far as I knew,
20 there were no real findings or real resolution that had been
21 obtained by this visit.

22 Q What was your understanding of the concerns that
23 caused this particular meeting to be held?

24 A The only thing I got from attending the meeting was
25 that there had been some transients at Davis-Besse and these

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1 other plants, including Arkansas-1. Some transients in which
2 relief valves had lifted and had failed to recede. Some rapid
3 cool-down transients after turbine trip, loss of pressurizer
4 level, things that appeared to be generic to all of the five
5 plants that were carbon copies of each other.

6 Q How was that then translated into a concern? What
7 was the content of the concern?

8 A Well, after attending a morning meeting, I realized
9 that it was pretty -- sort of just an informational meeting.
10 So, after lunch, I asked Kohler and Foster if they would just
11 move me into a private conference room so that I could discuss,
12 you know, what they were really there for. Because it didn't
13 appear to me that any -- that it was the sort of thing that
14 you'd come all the way to Region III to follow up on. That
15 they had gotten the information at Davis-Besse and that the
16 things that B&W told them all have been supplied, you know, in
17 a report or what have you. Because it was all information
18 that was presented on the part that I saw, was all information
19 that was just presented on charts.

20 And I don't know what transpired in the afternoon.
21 I don't know whether Foster and Kohler went to look at the
22 calculations that supported the analyses or what have you.
23 The exit meeting was at 3:00 o'clock, which surprised me, because
24 I thought that, you know, it would require more time to really
25 follow up on the things at B&W, the analyses that had taken

sls-12
1 place.

2 So, I got with Foster and Kohler and we went to a
3 private conference room. And I said, Joel, you know, what are
4 you really here for? This doesn't seem like much of anything.
5 And they indicated at that time, that there was an inspector
6 in Region III named Creswell that had expressed some concerns
7 about this -- these cool-down transients and loss of pressurized
8 levels, and so forth. And that they were there to follow up
9 on his concerns.

10 Q Did they explain or expand at all on this, on what
11 the concerns were that Mr. Creswell wanted considered?

12 A Nothing, except that they related to the rapid
13 cool-down transients.

14 Q Did they give you any indication of whether the
15 concern was associated with loss of pressurizer level indication
16 highs?

17 A Yes. Oh, no, I am sorry. Go ahead and ask the
18 question.

19 Q I believe you mentioned that they did indicate that
20 the concerns were also associated with loss of pressurizer
21 level indication?

22 A Yes, but it was at the low end. It seems like it
23 was dropping out the bottom rather than going off scaled high.

24 Q Did they expand on that at all and tell you why it
25 was felt that that might be a concern?

sls-13

1 A Well, when you lose pressurizer level, I would think
2 that would be a concern as far as, you know, operating a
3 nuclear plant because you don't know what your inventory of
4 water in your primary coolant system is, at least I don't know
5 that after you lose pressurizer level.

6 Q Was the concern with loss of pressurizer level
7 indication or with actual emptying of the pressurizer?

8 A I think from what I've got at one time, it's actually
9 a physical emptying of the pressurizer. Not all the way, but
10 down to a level of -- let's see. I've got 35 inches. That's --
11 oh, one event at Toledo Davis-Besse three. One event, there
12 was only forty-five inches left in the pressurizer. And I think
13 low or low, low level or something is like 125 inches or 80
14 inches or something like that.

15 So, that was way below the instrumentation that the
16 pressurizer could sense.

17 Q Did you consider that to be a problem?

18 A I am not that technically competent. I don't inspect
19 the plants any more. So, I didn't feel that it was really, you
20 know -- my judgment, they were following up on this thing and
21 that was their responsibility. My only responsibility in this
22 whole thing was just to see what they were there for and just to
23 coordinate with them while they were and to ensure them, if
24 they needed any help, or if I could get anyone from B&W with
25 them, that, you know, I would be there to help them on that, as

sls-14

1 far as that is concerned.

2 Q When you had this discussion with Mr. Kohler and
3 Mr. Foster, we've seen some references made to the possibility
4 that Mr. Kohler made a statement to the effect that Mr. Creswell
5 was a troublemaker and they were there to shut him up.

6 A That is exactly right.

7 Q Do you recall any other details about that or when it
8 occurred and in what context it was said?

9 A It occurred in a meeting that we had privately between
10 Kohler and I and Foster. And when I asked them what they were
11 there for, they told me about Creswell. And they said he had
12 written several memos and had concerns and he had kept beating
13 this thing to death and that there were some people, I guess
14 in Region III, that were -- that did not agree with him. And
15 that they had been sent to B&W to shut him up.

16 Exactly. Those were the exact words Mr. Kohler
17 used.

18 Q Did they give you any indication of the context in
19 which that was meant?

20 A When somebody says they are going to shut somebody
21 up, it seems to me that instead of resolving a concern
22 objectively, that you are going there to just resolve a concern
23 period. You know, and it's -- it left some concern with me that
24 a region would send inspectors to follow up on concerns of
25 another inspector, a fellow employee, you know, to shut him up.

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1 And I felt that if I had been sent there to do that,
2 I would have gone in objectively and tried to see if I could
3 understand what the man's concerns were. And then, after I had
4 accumulated enough information, you know, to make some sort of
5 judgment myself, then to determine at that point whether or not
6 the man had legitimate concerns or not.

7 Q Other than the statement made by Mr. Kohler, was
8 there any other indication that the -- Mr. Kohler and Mr. Foster
9 were taking less than an objective observation of the concerns
10 that had been raised?

11 A Well, when I had heard that they were coming on the
12 14th and after the presentation in the morning, I felt that
13 probably they'd be there two or three days following up on the
14 items that were discussed at the meeting. Because on N triple
15 S, when you have a problem and you bring it to their attention,
16 they are going to that meeting of that sort with charts, and so
17 on. They are going to try to impress you with the fact that
18 they have analyzed this problem and that it is not a problem.
19 And that your concerns are not really justified.

20 It's -- these people are in competition with each
21 other and --

22 Q Excuse me. Which people?

23 A N triple S.

24 Q In competition with whom?

25 A Each other, combustion engineering, Westinghouse,

sls-16

1 B&W, the ones that provide pressurized water reactors. It's
2 not to their advantage to have information in the PDR or in
3 the public that indicates that one of their plants is
4 operating any less safe than the other. Because their sales
5 depend on the safety of the operation of their plants.

6 It's like the Pintos with the gasoline tanks on the
7 back. That didn't help Fords selling Pintos any more. And you
8 don't want that sort of thing if you are a nuclear steam
9 supplier in the public record. Because it could hurt your
10 sales.

11 And my feeling is that the nuclear steam suppliers
12 have a tendency to kind of whitewash most of the concerns that
13 the NRC or utilities or anyone else has by presenting a dog and
14 pony show, as some people call it, for the benefit of the
15 NRC or the public, to resolve a question. And the only way
16 that you can really resolve it objectively, as an NRC
17 inspector, is once they presented the information to you, to go
18 deeper and look and see the analyses, the calculations that
19 they have to support what they're telling you.

20 And if you don't go that far, you're really just
21 getting a superficial view of the thing. And it was surprising
22 to me that they could come in at 10:00 o'clock in the morning,
23 spend the whole morning in a presentation, eat lunch and at
24 3:00 o'clock, be completely finished with their -- with the
25 concerns such as have been indicated unless they had a lot of

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1 prior information that had already -- their judgment was already
2 made on what the problem was. Because for something like this,
3 the only place that you can really go to see if there have been
4 design changes or reanalysis or anything of that sort to
5 establish the safety of a system, B&W is the only place that
6 you can get that information. Because they're the nuclear steam
7 supplier. And they have the analysis groups that perform those
8 sorts of analyses.

9 They use computer codes, do hand calculations, all of
10 the engineering techniques that are necessary to substantiate
11 any information that they have regarding transients or problems
12 that they're having in a nuclear plant. So, the main thing was
13 that the time that was spent there, I don't feel was enough to
14 really objectively find out if there was substantive information
15 that backed up the response that B&W gave them in the morning
16 session.

17 Q Did Mr. Kohler or Mr. Foster give you any informa-
18 tion as to whether their concerns were principally associated
19 with the technical content of the analyses or simply the --
20 an attempt to identify what analysis had been done and when
21 they had been done?

22 A I am not aware of that. I don't know -- Would you
23 repeat that again?

24 Q There's some indication from discussions with
25 Mr. Kohler and Mr. Foster that their principal concern was not

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1 so much the technical content of what had been done because
2 of their perception that they had already been rather extensively
3 analyzed by NRR. But, their concern was more on the issue of
4 what had been done and whether a timely evaluation of these
5 issues had been done, rather than trying to get into actual
6 technical content of the analyses.

7 In fact, I think Mr. Kohler even admits that he's
8 not a thermodynamics expert and wouldn't have been qualified to
9 assess the technical merit of the analyses in the first place.

10 A So, they were just following up on the procedural
11 aspects of the thing?

12 Q Correct.

13 A Okay.

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1 Q Now, if that were in fact the case, do you think
2 they could have accomplished that in the time that they were
3 there?

4 A Sure. That's possible if they knew that NRR had
5 already been to B&W and had gone through the calculations
6 and analyses and had confirmed that they were correct.
7 Then, their meeting, coming in there later, would have been
8 just a procedural thing, but I don't know why they would
9 have even had to have gone in at all if NRR had already
10 confirmed that supporting calculations verified that the
11 problem, you know -- that it wasn't a problem.

12 Q Well, in issues such as this there's two possible
13 questions that can be asked. One is the question of whether
14 there is an unreviewed safety issue, whether or not there's
15 a technical content or a technical merit for determination
16 that an issue is or is not an unreviewed safety issue.

17 There is also the question of whether or not that
18 determination, regardless of how it eventually comes out,
19 was performed in a timely manner.

20 A Right.

21 Q Now, it is my understanding -- and please correct
22 me if you don't agree, but it was my understanding that
23 Mr. Kohler and Mr. Foster, their feeling was that they were
24 there primarily to determine if the analysis had been done
25 in a timely manner. Taking as a given the fact that the

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1 results of the analysis which had been done confirmed by NRR
2 was that there was not, in fact, an unreviewed safety
3 issue. So their principal concern was simply whether or not
4 that determination had been done in a timely manner.

5 A Then why was the meeting in the morning technical
6 in nature? Because the B&W presentations had to do with why
7 the problem was occurring, what action B&W was taking,
8 design action they were taking to correct the problem. Why
9 it was not generic to all plants and, you know, if it were
10 only reporting that, we're talking about -- it seems like
11 the meeting got a little too technical for that part of it.

12 Q Well, again, I don't want to attempt to overwhelm
13 you with my understanding of what's going on. Obviously,
14 the purpose of this is to get your perceptions of what's
15 going on. But, as I understand it, there was some confusion
16 on B&W's part and Mr. Kohler and Mr. Foster's part about
17 exactly what that meeting was all about.

18 Now, did you perceive any confusion such as that?

19 A Yes. I perceived that from the beginning because
20 when Kohler and Foster and I arrived for the meeting, there
21 was considerable animosity by the utility people that were
22 there. Because -- let's see, the utilities wanted to know
23 why Region 3 had not gone through all of the other regions
24 in notifying the utilities, why Region 3 had called B&W and
25 asked B&W to notify the utilities. Because the utility

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1 people that were there felt like -- that the NRC format for
2 this sort of thing would be to notify regions in which --
3 like Arkansas-1, notify Region 4 which in turn -- the
4 principal inspector at Arkansas-1 then -- or yes --
5 Arkansas-1, would notify the people at Arkansas-1 that there
6 was going to be a meeting at B&W.

7 And that was the concern of the utilities, that
8 the notification of the utilities had not been proper.

9 Q What -- excuse me, go ahead.

10 A And it just seemed as if there was a lot of
11 hostility at the beginning of the meeting. And the fact is
12 Foster said, I'm sorry if we stepped on anybody's toes. And
13 to kind of quiet the utility people down because there was a
14 lot of animosity and discussion, and so on, in the
15 beginning.

16 Q In your understanding, who requested that the
17 utilities be there?

18 A I think later on, I saw -- the fact is after I
19 gave deposition to the Three Mile Island Commission, they
20 sent my deposition back to me with the attachments that we
21 had kind of breezed through when I was at the Commission.
22 And one of them was a letter, I believe, from Foster to
23 somebody at B&W telling them that they were coming in for
24 this meeting.

25 And I guess once that happened, then, the people

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1 at B&W notified the utilities that the NRC was coming in for
2 this meeting and maybe the utilities felt like, that the NRC
3 was trying to sneak in and find out more about their
4 particular plants from B&W without first notifying the
5 utilities that they were going to be there.

6 You know, there's quite a bit of interplay between
7 utilities and NRC and NSSS as their architect-engineers and
8 there's certain formalities that everyone tries to observe
9 as far as setting up meetings and making sure the right
10 people are there for the meeting and seeing if the utilities
11 would like to send a representative, and so on.

12 Q Well, is there any current practice that would
13 imply that an NRC inspector in a region can't go to B&W to
14 discuss a generic concern or can't go to any vendor to
15 discuss a generic concern without having representatives of
16 all of the plants that are involved with that vendor
17 present?

18 A I think first, he has to notify the utility that
19 he's going to do that. I don't think he would go to B&W
20 with a concern without first notifying the utility
21 representatives that, I am going to B&W to follow up on
22 this.

23 Q Well then, how do you do your inspections? Do you
24 have to notify all five or six B&W utilities every time
25 you're going to go to an inspection at B&W?

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kapPL 1 A I'm not a reactor inspector. I inspect B&W. So,
2 I don't have to notify the utilities. My responsibility is
3 to B&W. That's my inspection responsibility.

4 Q But you inspect B&W?

5 A Yes.

6 Q If you inspect B&W, that would seem to be of
7 interest to people who own B&W plants.

8 A We don't have to notify them.

9 Q What's the difference between you going to inspect
10 the B&W and address concerns and a regional inspector from
11 Region 3 coming in to inspect B&W with unaddressed concerns?

12 A Well, that's a concern that I have. My concern is
13 that I am a principal inspector at B&W. And as far as I'm
14 concerned, that's my plant. And the way the NRC operates is
15 they can send inspectors, regional inspectors, into B&W or
16 NRR can send inspectors into B&W without my even knowing
17 about it. I can be at Westinghouse and somebody will ask
18 me, Did you know that there are five guys here from NRR that
19 are also inspecting?

20 But, we wouldn't dare go into a nuclear plant in a
21 region. I wouldn't dare go to Rancho Seco to do a quality
22 assurance inspection there without first clearing it through
23 the regional office and through the inspector who's the
24 principal for this plant.

25 But, I think that's a problem within the NRC that

POOR ORIGINAL

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kapPL 1 needs to be resolved.

2 BY MR. FOLSOM:

3 Q Would you notify B&W if you were going to Rancho
4 Seco to make an inspection of some aspect of B&W plant
5 performance there?

6 A I am the principal inspector at B&W.

7 Q I understand that.

8 A Okay. I inspect the engineering activities of all
9 plants that are under construction right now by B&W. If I
10 am looking at Bellafonte, I don't notify TVA that I'm
11 in .ting at B&W at Bellafonte. That's my inspection
12 responsibility. Now --

13 Q Does B&W know that you're going to Bellafonte?

14 A I look at Bellafonte test engineering activities
15 at B&W. I don't go to any of the plants.

16 Q I see.

17 A But, a regional inspector who is a principal
18 inspector at Davis-Besse, for instance, can come into B&W
19 with my -- with no knowledge on my part.

20 Q And it's your understanding that he has to notify
21 B&W or the utility that he's coming there?

22 A I was inspector at Arkansas-1. I wouldn't have
23 gone to Babcock & Wilcox to follow up on a concern that I
24 had at Arkansas unless the people at Arkansas knew I had --
25 I was going there.

POOR ORIGINAL

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kapPL 1 Q Was that your personal rule?
2 A That was a regional rule.
3 Q A regional rule?
4 A Yes, sir.
5 Q Was that an NRC rule?
6 A If it's a regional rule it's an NRC rule.
7 Q Within certain limitations, yes.
8 A The regions promulgate activities of I&E, NRC, and
9 whatever rules they have for inspection of the plants are
10 NRC rules. They're made in the regions.
11 Q Do you know whether that rule is pervasive of all
12 regions?
13 A Before an inspector can follow up in an activity,
14 an AE or NSSS for a utility that he's principal of, that he
15 notifies the utility?
16 Q Yes.
17 A I don't know. I know Region 4 has that
18 restriction.
19 BY MR. HEBDON:
20 Q That's not quite the case we have here. They
21 weren't really going to specifically address Davis-Besse.
22 They were going to address a generic concern that applied to
23 all B&W concerns.
24 A No, five plants. Only five.
25 Q There's only six B&W plants, aren't there? All

POOR ORIGINAL

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kapPL

1 but one. In fact -- well, for the -- it's not really
2 particularly important but for the sake of argument, I asked
3 to get information from all B&W plants. And as I understand
4 it, there were two that had never had that type of
5 transient, one or two that never had that type of
6 transient. And so, they didn't provide anyone and that's
7 the reason it wasn't everybody.

8 So, Kohler and Foster first of all, Kohler is not
9 a principal inspector on any B&W plant. He is not a B&W
10 inspector on a plant. He wasn't at the time.

11 A Kohler?

12 Q Kohler.

13 A Okay. I didn't know that.

14 Q Foster is an investigations specialist. He's not
15 an inspector at all. I still don't understand how the
16 system can function if these are the ground rules. Kohler
17 and Foster told B&W they were coming down there to discuss
18 some generic concerns associated with B&W plants. B&W said,
19 well, we have to notify all of the utilities. That's fine.
20 That is B&W's problem.

21 But, why would the utilities be distressed because
22 of the fact that they weren't notified through the I&E
23 regional -- each through their own I&E regional office that
24 this meeting was going to be held, they were told it was
25 going to be held? What difference did it make to them now

kapPL 1 they were told?

2 A You'll have to ask the utilities.

3 Q Didn't that strike you as an unbelievably
4 cumbersome way to try and hold a meeting?

5 A If that's the the utilities feel it works, I guess
6 you'll have to resolve that with the utilities. If they
7 have concerns about people coming to B&W to look at
8 engineering activities on their plants, well, I guess we
9 either have to tell them it's none of your business and go
10 in any time we want to, or else try to coordinate activities
11 through them.

12 Q But you go in any time you want to and look at
13 B&W?

14 A No, I don't. I send -- I notify them by phone. I
15 follow it up with a letter saying that I'm coming, when I'm
16 coming. Then, when I'll be there. Then, I come regularly
17 on a four time a year basis.

18 BY MR. FOLSOM:

19 Q Do they always know what you're coming for?

20 A Then I always look at engineering activities. I
21 look at the design activities of B&W. If I bring somebody
22 along with me that's going to look at procurements or
23 audits, I notify them that I have somebody coming along that
24 will be looking at procurements or audits. So that at the
25 entrance meeting, they can have the proper people

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kapPL 1 represented there, so inspection can get off in a hurry and
2 we can get to work right away.

3 Because too many times, you arrive. People are on
4 vacation. You don't get to see the right people. And
5 that's why we notify them.

6 Q You don't have any unannounced inspections?

7 A We don't have any unannounced inspections, no.
8 And there's really no reason for it, because when you say
9 you're going to look at design, you're talking about a
10 million documents. And there's no way that they can clean
11 up the whole design area in a two-week period of time before
12 you get there.

13 Q Now, let's say you wanted to go down and look at
14 one of the plants that is actually under construction by
15 B&W. That's still in the design phase, early in
16 construction.

17 A Yes.

18 Q First of all, have you ever done that?

19 A No. We're not allowed to do that in our group.

20 That is --

21 Q If you were looking into the design of a
22 particular system and for whatever reasons you wanted to go
23 see how it actually looked --

24 A I felt like -- that I needed to go in?

25 Q You felt like you needed to actually go see what

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kapPL 1 this thing looked like. Are you telling me that you would
2 be prohibited from doing that?

3 A I am not saying I would be prohibited from doing
4 that. I am saying we have not done that. What you would
5 have to do is, you have a construction inspector in the
6 construction group, in the regional office. They have
7 construction inspectors. The inspectors, construction
8 inspectors, are the principal inspectors at those
9 construction sites. And some of them now are regional
10 inspectors.

11 Now, if you wanted to follow up on a problem that
12 you had identified -- if I wanted to say that I had
13 identified at B&W, at South Texas projects, for instance,
14 well, that would be Westinghouse -- then, I would have to
15 notify my management that I would like to go in there. We
16 would have to coordinate it through the principal inspector
17 and his chief in whatever region we wanted to go into, to go
18 to the plant to do whatever we wanted to do.

19 But, it's never been done yet.

20 Q Would you have to tell B&W?

21 A I'm sure -- I don't know if I'd have to, but I'm
22 sure that I would tell them. I would tell them at an exit
23 meeting that I've identified a problem. It's going to
24 require that I go to Arkansas-1. That I'm going to have to
25 coordinate it through my local -- my Region 4 management.

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kapPL 1 And the way that would work is that I would
2 request that in my regional office to the Operations Chief.
3 And then, he would coordinate it through his resident
4 inspector at ANO-1. And then I would go to Arkansas-1.

5 But there's more than just me leaving B&W and not
6 telling them anything and taking the next plane out and
7 landing at Little Rock and driving up to ANO-1 and walking
8 into the plant and saying, I'm here to look at follow-up on
9 some information. It just doesn't work that way.

10 Q All right. But your statement of what there's
11 more of all relates to within the NRC and has nothing to do
12 with whether you tell B&W. You have to get clearances
13 through your own line management and then whatever crosscut
14 problems within the agency might be involved?

15 A Yes.

16 Q But that has nothing to do with notifying B&W that
17 you're going to do it, does it?

18 A Well, if all of this that you're saying is true,
19 then why was there antagonism between the utility owners
20 that were present, and why did Mr. Foster say I'm sorry if
21 we stepped on your toes? I mean, if he felt like he had
22 done this in all good faith, why did he say that? I
23 wouldn't have said that.

24 I would have said, It's none of your damn
25 business. We'll come up here any time we want to. That's

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kapPL 1 exactly what I would have told them. And we don't operate
2 like that.

3 BY MR. HEBDON:

4 Q Well, first of all, Mr. Kohler was, as I
5 understand it, unaware that the utility representatives were
6 going to even be there. It's his perception that he never
7 asked that they be there. He was simply trying to get some
8 information and had never had any intention that they would
9 be there, and in fact, was quite surprised when he walked in
10 the room and saw them there.

11 A I know that.

12 Q So, could that be a plausible explanation of what
13 he was apologizing for? That he was apologizing for the
14 fact that they were there because he had not -- he had not
15 requested their presence and that he was a little bit taken
16 aback to find all the time and money and travel time and
17 airline tickets and everything else that had been spent to
18 get these people here from all over the country, when he
19 really had no desire that they be there?

20 A That's not a judgment I can make. I don't know
21 what was in his mind. I am not Mr. Kohler.

22 Q Well, my question was, why was he apologizing, and
23 what I'm wondering --

24 A Foster is the one who was apologizing.

25 Q Foster or Kohler. Is that a plausible explanation

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kapPL 1 for what he was apologizing for:

2 A No. I don't have any idea. But, the fact that he
3 said, I'm sorry, we stepped on your toes, to me appears that
4 somehow, he felt that he had done something that was
5 inappropriate and when they raised objections to it,
6 previously, maybe he realized that maybe he hadn't really
7 gone through it, taken the proper action to arrange this
8 meeting. I don't know.

9 Q Well, anyway, that's neither here nor there.
10 When you do your inspections, do you actually
11 review the content of the design and analyses or do you
12 review more the procedures by which the design and analyses
13 are done?

14 A For the last year and a half, I have been
15 reviewing the actual design. I've been looking at the
16 actual calculations, the actual computer codes, the output
17 of computer codes. I've been paying very little attention
18 to quality assurance, procedural requirements to doing it.

19 Sometimes it — sometimes I identify deviations
20 that fall out in the process of doing this, but I am more
21 interested in the technical details of their design. I do
22 design verification, is exactly what I do now.

23 Q You mentioned that you've never been to any of the
24 B&W plants as part of your inspection program.

25 A B&W, yes. Arkansas-1, I was principal inspector

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1. apPL 1 there.

2 Q I mean, since you've been part of the vendor
3 inspection program, you have not been to any B&W plants?

4 A No.

5 Q Do you find it at all difficult to inspect or to
6 assess design and analysis work on systems that you haven't
7 physically seen?

8 A It is a problem, yes. What I'm looking for is
9 mainly, Does a single calculation which provides input to a
10 larger design analysis, is that calculation correct?
11 Because sooner or later, NRR will get the design analysis.
12 They'll get the final numbers.

13 What I am really interested in is the calculations
14 that are performed by hand, by an engineer, checked by
15 another engineer and verified by another one, are the
16 technical contents of that calculation correct? Because if
17 the input is incorrect, then the output is no good. Input
18 in is only as good -- the output is only as good as the
19 input.

20 So, I look at individual calculations and design,
21 verify those, follow up on the verifier.

22 Q Do you look at those calculations on an audit
23 basis, or do you attempt to review all of the calculations?

24 A Just on a sampling basis. That's all we can do.
25 There are thousands of calculations. It would be impossible

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kapPL 1 to do it in a lifetime, one person.

2 Q So then, your purpose is to basically serve as a
3 quality assurance check on a sampling basis?

4 A Not quality assurance. Quality assurance means
5 that you're assuring that the procedural requirements have
6 been met, and so on. I'm doing a technical audit, is what I
7 am doing. I am looking at the references that are used in a
8 calculation, the equations that have been used, assure that
9 the numbers go into the equations correctly to provide the
10 input that goes into the computer codes, that provides the
11 design analysis.

12 Q How frequently do you find errors?

13 A We've been finding errors quite frequently. Even
14 though a calculation is prepared by an individual, checked
15 by an individual and verified by another one we still find
16 errors in the calculations.

17 Q Substantive errors?

18 A Some of them have been, I felt, yes. Just
19 recently in an inspection at Browning Route, I had had some
20 response spectra that had been used, response spectra that
21 was in a report that generated information for the FSAR, was
22 different than the response spectra that was in the report.
23 And the fact is, it was less conservative. So I had a
24 concern, then, about whether or not this less conservative
25 response spectra had been used in the procurement of

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kapPL

1 equipment, because all the specifications, design
2 specifications, have to identify the response spectra that
3 that pump or valve or whatever must be subjected to. Also,
4 the construction of the containment, the containment base
5 mat, for instance, has response spectra that it is designed
6 to.

7 And this response spectra was less conservative.
8 I did not feel that I was technically qualified to really do
9 this sort of an analysis. So I requested from NRR a
10 specialist in this area. And a Dr. Rafan went down to
11 Browning Route with me, and at that point, he didn't feel
12 that he was really qualified at that time, to do it.

13 So, he took about six calculations back with him
14 to Bethesda that had been a system that had been designed
15 using less conservative response spectra. And it had been
16 re-analyzed to assure that the incorrect response spectra
17 had not underdesigned the system that was being fabricated
18 down there. And in particular, it was the shield door on
19 the reactor containment building.

20 And on my last inspection of Browning Route I
21 received, finally received a letter from Dr. Rafan in which
22 he had performed the analysis -- a verification of these six
23 calculations. And he felt that each -- that the
24 calculations and the design of that structure were
25 conservative.

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2 So then, I was able to close the item. And I
3 feel like these sorts of things are definitely substantive
4 technical design information.

5 Q If you're identifying these substantive problems,
6 are you taking any general actions to improve or to minimize
7 the possibility of these kinds of errors being made?

8 A Yes. One of the things that they have to do in
9 their corrective action is to identify generically any other
10 systems that may have been purchased, may have been
11 fabricated that were based on this report that had
12 non-conservative response spectra. And that's one of the
13 things that the architect-engineer is required -- we require
14 of him in his response to us.

15 And he then looked at all specifications relating
16 to South Texas project, to assure that the correct response
17 spectra that was in the FSAR, was identified in each of
18 these design specifications.

19 And they found -- that's how they identified the
20 one for the shield door. And also, there was part of the
21 reactor fan cooler system that was purchased to less
22 conservative response spectra. They re-analyzed those two
23 systems and found that in neither case was the system
24 underdesigned.

25 There's a lot of -- in the design of nuclear
plants, there's a lot of conservatism that's put into the

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kap PL 1 design by AEs and NSSSs.

2 Just about every time they turn a corner, they add
3 more conservatism. They're lucky because when they find one
4 of these things in error on design, if there's not a way
5 they can go back and take some of the conservatism out and
6 re-analyze the thing, they would be tearing out systems or
7 redesigning and rebuilding systems to meet the design
8 criteria.

9 Q I think we've gotten a little far afield. Let's
10 see if we can get back to specific concerns of Mr. Creswell,
11 Foster and Kohler.

12 What was your opinion of the general competence
13 and maturity of Mr. Kohler?

14

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pv PL

1 A Oh, I think he's an excellent reactor inspector.
2 He was. And he did very well in those courses that the
3 Inspection & Enforcement, you know, provides, the P&R
4 course, the one I was in with him. His questions in class
5 were very clear. He's a very technically competent person.
6 There's no doubt in my mind that he's not. And I think he's
7 from the nuclear navy. I think he's got that background
8 experience. I think he has an engineering degree.

9 There's no question in my mind that Kohler is not
10 very competent. He's probably one of the top, or was one of
11 the top, reactor inspectors that we have. I don't know what
12 he's doing now, but --

13 Q Do you feel that he would be involved with an
14 effort to -- and maybe this is a bit of an overstatement --
15 whitewash the concerns of a fellow inspector?

16 A That's a hard question. That's a moral question
17 that an individual must address himself to. I am not sure
18 that if my management didn't put pressure on me to whitewash
19 concerns of another inspector, you know, that I might not be
20 forced into a box to do that. I don't know.

21 That's a moral question that sometimes you can be
22 intimidated into whitewashing another individual. If there
23 are enough people around that say, "He doesn't know what
24 he's talking about," and you feel like you have to agree
25 with the majority, even though you may feel that maybe the

POOR ORIGINAL

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pv PL 1 guy does have legitimate questions. So, I don't really
2 know. I don't know how to answer that.

3 That's a moral question that I wouldn't know how
4 to answer. I don't know how I would react under a similar
5 situation where I am put under pressure by management to go
6 out and intentionally find a way to discredit somebody. I
7 don't know. And I don't know if that's what happened in
8 this case.

9 Q Okay.

10 A All I know is I just have some gut feelings about
11 what did happen, and that's all I can say.

12 Q One of the things that I believe came out in the
13 course of this meeting was a discussion about an earlier
14 incident that had occurred at Arkansas 1. Do you recall a
15 discussion of that particular incident?

16 A Yes. There were two events reported on November
17 11, 1974, and May 9, 1975, that were of 20- to 30-second
18 duration. And it had to do with steam relief valves not
19 receding or something, safety sticks, or I am not sure
20 exactly what that was. But this was a presentation, part of
21 the B&W presentation, to Konler and Foster.

22 Q Were you involved with Arkansas Nuclear as an
23 inspector when these events occurred?

24 A Yes.

25 Q Do you recall the event at all, separate from the

POOR ORIGINAL

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1 discussion at this meeting?

2 A The one on November 11, '74, I was not the
3 inspector at that time. The one on May 9, 1975, I had just
4 taken over responsibility for Arkansas in April, the month
5 before. And I guess, about -- that would have been my
6 second inspection there, sometime about that time period.

7 And it seems like, in my memory, we got a letter
8 from some formal naval officer who had a home on Lake
9 Darnell, and they had been lifting safetys on Arkansas I
10 pretty regularly. And he wanted to know about the
11 qualification of the people that operated that plant because
12 he was concerned that they must not know what they were
13 really doing, because if they had to lift the safetys all
14 the time -- and that's the only thing in my mind; that is a
15 recollection of what anything that had to do with anything
16 like that.

17 And I don't even know if I reviewed a licensee
18 event report related to safetys or something like that.
19 It's been a long time.

20 Q Do you recall any discussion at that time of any
21 concerns by anyone that pressurizer level indication had
22 been lost during those transients?

23 A No. I don't remember that at all. And besides
24 that, I was so immature in my judgment at that time, I
25 probably would not have known what they were talking about

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pv PL

1 in the first place, because I had only been with the NRC for
2 -- let's see -- four months; and my previous experience with
3 -- in the nuclear industry, had been the operation of
4 research reactors.

5 And so -- and I was in the process of being
6 trained at that time in I&E, PWR schools. So, I can't
7 answer that question.

8 Q All right. You mentioned, I believe, earlier,
9 something to the effect of one of the topics that was being
10 discussed at the meeting was a question of safety valves
11 lifting and receding?

12 A Yes.

13 Q Was that primary safety valves, or secondary
14 safety valves?

15 A I'm sorry, I can't answer that. I believe it was
16 steam relief valves, because that's what I have got here. I
17 have got "steam reliefs did not recede," and then I've got
18 "safety sticking." And this was at Three Mile Island,
19 Units 1 and 2. And there were two events of 30 seconds
20 apart.

21 Q Do you have a date on that?

22 A Notification to the NRC was 11/15/78.

23 Q All right. By the way, I think you've been
24 quoting here off and on from some notes you took during the
25 meeting. Would it be possible to get a copy of those notes?

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pv PL 1 A Yes. And you can get them from Mallory. He says
2 he has an extra copy. At the Three Mile Island deposition,
3 they made copies of this, and he has an extra copy. So, he
4 said he'd be happy to provide you all with that, if you
5 requested it.

6 Q All right. Fine. We'll get that from him.
7 Mr. Mallory, from the general counsel's office?

8 A Yes.

9 Q Did you have any subsequent discussions with
10 Mr. Kohler or Mr. Foster after their visit to B&W?

11 A Oh, boy. Let's see. I think I called Joel Kohler
12 and told him that I was -- that I had been asked to come to
13 the Three Mile Island Commission to give a deposition. And
14 I think I told him exactly what I was going to have to say.
15 I think I did that the week that I went to the deposition
16 for Three Mile Island.

17 Q What did you tell him you were going to have to
18 say?

19 A The business about "shut him up."

20 Q All right. Do you recall either at the briefing
21 that you participated in or at the exit interview, exit
22 meeting, did Mr. Kohler or Mr. Foster give any indication of
23 what the results of their investigation was going to be?

24 A The only thing I can remember is it was something
25 to the effect that we've gotten the information we came

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pv PL

1 for. And we are satisfied, you know. And that's about all
2 of the information I remember them giving me at the exit
3 meeting.

4 Q Did they indicate that they were satisfied with
5 the information they had received or they were satisfied
6 that they had resolved the concerns that were raised?

7 A No. They didn't say that. I think they were
8 satisfied with the information they had received. And they
9 wanted to thank B&W for giving them the information and
10 going to the trouble of preparing it, and so on.

11 But they did not indicate what the final
12 resolution of the thing would be. They indicated that there
13 would be an inspection report which would document the
14 meeting.

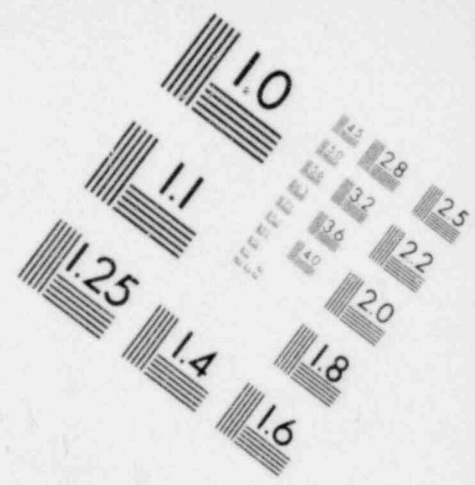
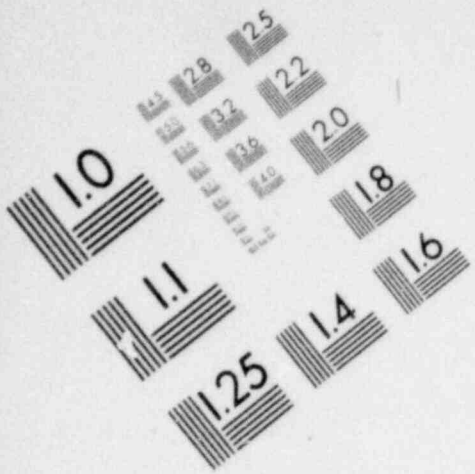
15 Q Did you receive a copy of that inspection report?

16 A No. First time I saw it was Three Mile Island
17 deposition. They showed me a copy of it.

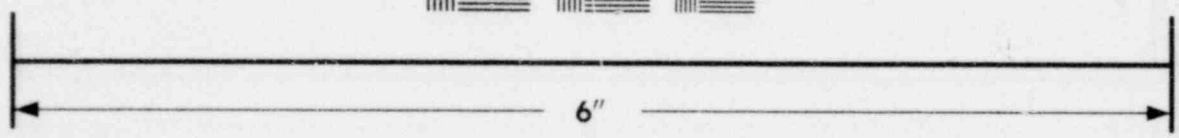
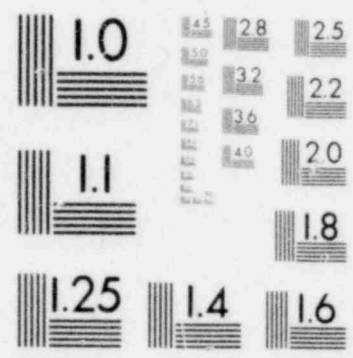
18 Q Did you find it unusual that you didn't receive a
19 copy of it?

20 A It's the way the system works. I would think it
21 would be -- it would have been nice if Mr. Konler had sent
22 me a copy of the inspection report so I could have found out
23 what the resolution of the whole problem was, since I, you
24 know, was initiated to the problem somewhat that day.

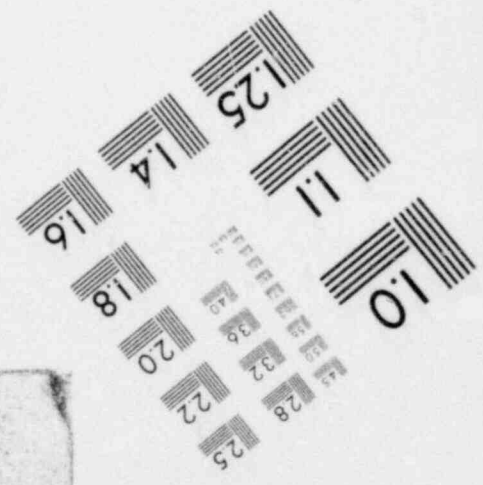
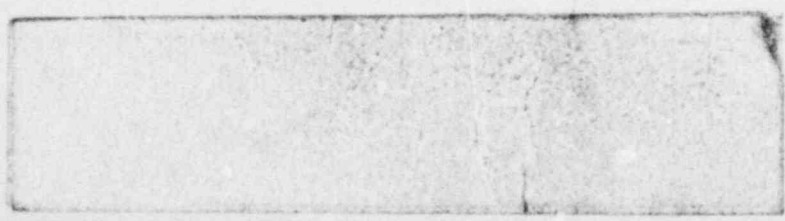
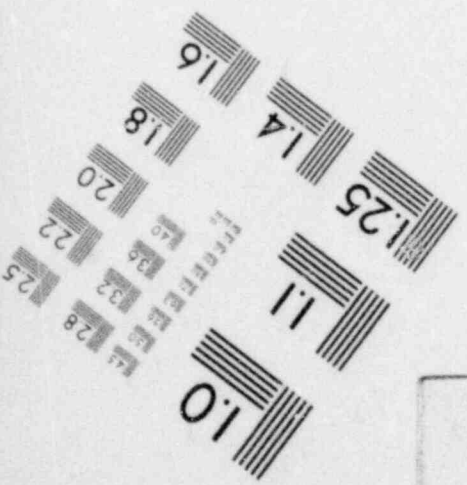
25 Q Were you at all curious about how it came out?



**IMAGE EVALUATION
TEST TARGET (MT-3)**



MICROCOPY RESOLUTION TEST CHART



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pv PL

1 A No, because I have got my own work to do, and
2 following up on someone else's concerns had already been
3 their responsibility. And I go out on inspection every
4 other week, and I come in and write an inspection report on
5 the week I'm there, and I just don't have time to follow up
6 on anything else like that.

7 I don't think that they had any responsibility to
8 send me an inspection report.

9 Q Why not?

10 A Because it was a Davis-Besse inspection report,
11 and I suspect B&W —

12 Q Were these to be associated with an issue that
13 might have been generic to B&W plants?

14 A Yes.

15 Q Wouldn't you have any involvement with that?

16 A Well, it would be nice if we could go in and
17 follow up on things like that as part of our normal
18 inspection routine, but we don't do it that way. We've got
19 inspection procedures that we inspect to, and there are
20 certain requirements in those inspection procedures that you
21 have to meet during the time that you're there. And you
22 have got 20 percent of your time can be spent in individual
23 inspection efforts, and that sort of thing, I feel like is
24 the sort of thing that would probably take you at least a
25 week to follow up on, to look at the calculations that

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1 support the information, to verify those calculations, to
2 assure yourself that the design input that had to be changed
3 or whatever in the redesign of the systems or reanalysis of
4 the systems was correct.

5 Q I guess I find it a little difficult to understand
6 how here two inspectors from Region 3 have come to B&W, for
7 whom you're the principal inspector, and they've raised a
8 concern that possibly B&W has failed to perform a timely
9 analysis of a generic concern, and they've held meetings
10 there, they've taken the time and effort to come down there,
11 so they obviously feel it's at least to some extent a
12 significant concern. And then they go off and they leave
13 and they go back to Region 3 and you, as the principal
14 inspector, are first of all procedurally not provided with
15 the results of that analysis, nor are you -- nor do you feel
16 in your mandate or your charter of what you're supposed to
17 be doing there, any need to find out how that whole matter
18 came out. Now --

19 A Stranger things have happened in the NRC. I don't
20 think there's a lot of coordination between different
21 regions, between headquarters, on things like this. I think
22 there -- somehow there's a flaw in the system that maybe
23 it's administrative or something.

24 But I know that I inspected, as part of my duties,
25 in the authorized inspection agency activities, I went to

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pv PL

1 the State of Oregon to inspect their authorized inspection
2 agency, and I came back and I wrote a report on that
3 inspection, and I attached a memorandum to that inspection,
4 which raised some concerns that I had and some feelings that
5 I had about the authorized inspection agencies.

6 Our director was interviewed and they asked him
7 some loaded questions about what he thought about the
8 authorized inspection agencies. And he gave them an
9 opinion --

10 Q Excuse me. Interviewed by whom?

11 A See, I guess -- was it a newspaper?

12 Q Okay.

13 A Okay.

14 Q Go ahead.

15 A And they had a copy of my memo, and then they
16 said, "Well, how is it that you're the director of that
17 regional office, and here's a copy of a memo where one of
18 your inspectors, who is actually done the inspection, has an
19 entirely different opinion of the system than you do?" And
20 somehow, that memo had gotten out of our office without our
21 regional director even knowing it existed.

22 It came to Wayne Reinmuth, in headquarters, and,
23 for some reason, the regional director didn't even know of
24 its existence.

25 So, things like that, I am sure, I feel like

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1 happen all the time, that the people who actually are
2 involved and have the responsibility for a particular
3 inspection or activity, sometimes the information in an
4 inspection report is not enough to get strong concerns in
5 those things identified to the proper people, because not
6 everybody reads all the inspection reports, except maybe a
7 chief reads it for technical content and corrects the errors
8 in the report, and then it may go — after that, it may go
9 into the PDR without the regional director, you know, or
10 anyone else seeing the thing.

11 And I guess this memo that I am talking about
12 probably was the same sort of thing, and if he had known
13 about the memo, he may have had a better feeling for the
14 system. I don't know.

15 MR. FOLSON: Can we take a break?

16 MR. HEBDON: Yes. Let's go off the record and
17 take a break.

18 (Brief recess.)

19 MR. HEBDON: Go back on the record.

20 BY MR. HEBDON:

21 Q What was your opinion concerning the significance
22 of the issues that Mr. Creswell raised?

23 A Not being able to really technically evaluate what
24 his concerns were, it appeared to me as if they were related
25 to Inree Mile Island, that the concerns that he had -- and

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pv PL 1 then after Three Mile Island, that there was some
2 relationship between the two.

3 Q In what way?

4 A Oh, I guess, pressurizer level, for one, because
5 that was a problem at Three Mile Island. Let's see. And, I
6 guess, the relief valve or safetys, or whatever, not
7 receding, was probably associated.

8 Q Let me explore those a little bit, if we could.

9 In what way did you see -- do you see a
10 relationship between Mr. Creswell's concern about low
11 pressurizer level during a cool-down transient and the
12 accident at TMI?

13 A The accident at TMI also had a rapid cool-down, I
14 understand, after they got -- finally aux feedwater going.
15 They had depressurized below the point at which they got
16 safety injection. They had a sling in the primary coolant
17 system. Some of these same things, I guess, were what I
18 inferred from the Davis-Besse incidents.

19 If you have to manually operate a motor controller
20 on a valve for a system which supplies water to your primary
21 coolant system, it appears that maybe at Three Mile Island,
22 if they had done something of this sort, maybe they could
23 have gotten some water back into the system.

24 Q Could be something of what sort?

25 A Manually operating the valve controllers on the

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pv PL 1 makeup pumps, the charging pumps to the system that could
2 have gotten some water back into the system this way. They
3 turned off safety injection, which cut down -- cut off a
4 source of supply to the primary coolant system.

5 Q I'm sorry, I guess I still don't understand what
6 motor controllers they'd be operating to do what.

7 A Well, there must be valves on the charging
8 system --

9 Q Yes.

10 A -- That can be opened up to allow the charging
11 pumps to force water into the primary coolant system.

12 Q What would have caused them to do that? They had
13 already shut off the high-pressure injection pumps.

14 A I guess they had to turn them back on to do that.
15 They had shut off the high-pressure injection because they
16 turned on safety injection and --

17 Q Isn't that the same thing?

18 A The plants that we learned about were Westinghouse
19 plants.

20 Q Okay.

21 A And B&W plants are somewhat different. So,
22 sometimes I get the two confused.

23 Q Well, isn't the safety injection system on a
24 Westinghouse plant and the high-pressure injection system on
25 a B&W plant essentially the same system?

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pv PL 1 A On a Westinghouse plant, the safety injection
2 system, high-pressure safety injection, is your charging
3 pumps. And in one mode, it forces borated water from the
4 bit into the reactor coolant system; and the other mode is
5 to just provide makeup for the primary coolant system.

6 Q You also mentioned that you felt that the safety
7 valve issue had some relevance to the TMI. In what way?

8 A Well, they -- the PERC on the pressurizer lifted
9 and -- or PORV on the pressurizer lifted, and it didn't
10 recede. So, they lost coolant into the relief tank. And
11 they finally blew the rupture disk. And so it was a case of
12 relief valve not receding and leaking. And I am not sure
13 whether what they were talking about at B&W was your steam
14 safety's leaking or whether it was the PORVs on the
15 pressurizer. I didn't pick that up in the period of time
16 that I was, you know, listening to the discussions.

17 Q All right.

18 A Besides that, I am sure somebody has analyzed
19 Creswell's concerns and have seen if they do relate to the
20 TMI. I haven't had the time or I haven't had the technical
21 information available to do that myself.

22 Q Certainly. That was just an attempt to get your
23 perspective, not an attempt to get any detailed analysis.

24 A If I had the technical information to look at,
25 based on -- I have never even seen any of Creswell's

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pv PL 1 reports, you know. The only thing that I've seen is a memo
2 that Creswell wrote. That's attached to my Three Mile
3 Island deposition. And it doesn't really give a lot of the
4 details of his concerns.

5 It's a poor Xerox, in the first place. You can
6 hardly read it.

7 And the other thing is it doesn't identify his
8 concerns at all. It doesn't give the detail of them. So,
9 it would be impossible for me to analyze what his real
10 concerns are and how they relate to Three Mile Island,
11 unless I have availability to that information. And I feel
12 like somebody else is responsible for that sort of thing at
13 the present time. They're bound to be.

14 Q All right.

15 A You know, that's another thing: After Three Mile
16 Island, why didn't regional directors or somebody in
17 regional offices call in all the inspectors and sit them
18 down and tell them exactly what had happened at Three Mile
19 Island, the exact details of the thing?

20 I went on an inspection to Westinghouse after that
21 had happened. And Westinghouse had had something like 500
22 of their engineering staff in a conference, in which the
23 details of Three Mile Island were described in the meeting,
24 to apprise all of the engineers there of what had actually
25 happened. For one thing, for public relations. Because you

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1 have people that are going out in the public and somebody
2 says, "Hey, you work for the NRC. What happened at Three
3 Mile Island?" And if people cannot, you know -- if a guy
4 indicates that, you know, "I don't have any idea what
5 happened at Three Mile Island," they think, "And you work
6 for the NRC?" You know.

7 But we didn't have any single inkling. The fact
8 is it was as if management was trying to keep the details of
9 the thing away from everyone.

10 I think there is a -- there is a gap there. I
11 think that after an incident of this sort and this
12 magnitude, that everyone that inspects, whether they inspect
13 a nuclear plant or anything else, anyone that's in an
14 inspection capacity and is interfacing with the public
15 should have some sort of training as to what happens in
16 these sorts of events. We're not all stupid, and sometimes
17 they treat us as if we were all -- you know -- don't have a
18 need to know. That's exactly what it is.

19 Q Well, do you think that that particular incident
20 is somewhat symptomatic of the relationship of the various
21 units within NRC, that there is very little
22 cross-fertilization of information?

23 A I think so. See, I was with the AEC back in the
24 time when there were 18 inspectors altogether. It was a
25 close-knit group at that time, and when anything happened,

POOR ORIGINAL

830 03 16

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1 everybody knew about it, because it wasn't that hard to
2 disseminate information. But now, the thing is, the NRC has
3 grown to such a size that I guess it's hard to really get
4 the information around to everyone.

5 But there should be an attempt to do this, I
6 feel.

7 Q I would like to ask you some much more general
8 questions about the way the NRC and the way I&E functions.
9 Some of these things, I think, we've already talked about to
10 some extent.

11 What is your general perception of the
12 relationship between I&E headquarters and I&E regions?

13 A That's -- I think there is some feeling of
14 suspicion between the two. I think that the regional
15 offices have a feeling of independence, and I&E headquarters
16 probably feel as if they promulgate the policy which they
17 do. And then sometimes, the regional offices tend to drag
18 their feet a little, I think, about new policies that come
19 through, because a lot of people don't like change. They
20 get in a groove of doing things, and they don't like for new
21 things to come along that cause them to have to spend more
22 time to learn a new system.

23 And I think there is a sort of a feeling between
24 the regional offices and headquarters that headquarters just
25 is providing more work for the regional offices, or

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pv PL 1 something of this sort.

2 It's a parochial sort of thing that always exists
3 in a situation like this, where you have the headquarters
4 offices located somewhere else and then regional offices out
5 in the field.

6 I see this with the authorized inspection
7 agencies. For instance, Hartford Steam Boiler, they provide
8 the authorized nuclear inspectors at the nuclear plants now,
9 and they have seven regional offices in the United States,
10 and the headquarters office is in Hartford, and there is a
11 lot of ill feeling between the regional offices and the
12 headquarters office because they feel like the headquarters
13 office is always forcing undue requirements on them that add
14 to their time and just cause extra work and effort, you
15 know.

16 And I remember one time, we had an old friend of
17 mine that had been in Region 2 that was now at headquarters,
18 and he came out to our regional office to explain
19 enforcement action. That was his responsibility in
20 headquarters. And they just berated him something
21 terribly. They really raked him over the coals.

22 And I feel like there should be more esprit de
23 corps between the people in the NRC, and not so much feeling
24 that here's a guy that's just coming out and he's trying to
25 add more work for our schedule and he doesn't really know

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pv PL 1 what's going on. And I think that's the regional offices'
2 feeling about headquarters, that headquarters, you know,
3 those people there are way back in Bethesda, they sit in
4 rooms at desks and just sit there all day long and that the
5 regional office is really the one that does all the work and
6 actually promulgates the activities of inspection and
7 enforcement.

8 So, I think there is not a good feeling, as far as
9 I can see, between regional offices and headquarters. And I
10 don't see that this has to be. I think that there should be
11 more coordination and more feeling of cooperation between
12 the two.

13 That may not be a flaw in the system. I don't
14 know. But it probably doesn't help if people have feelings
15 like that. I'm sure it doesn't increase the frequency of
16 inspection effort.

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1 Q Have you ever been discouraged from using a strongly
2 worded statement to describe deficiencies that you found?

3 A No, I don't use strongly worded statements, anyway.

4 Q Have you ever had any perception that -- that the
5 management of the I&E region were discouraging that sort of
6 usage?

7 A Only to the extent that -- where you might be
8 expressing your own opinion. I think -- I don't think opinions
9 have any, you know -- you've got requirements. If you've got a
10 finding against a requirement, use that requirement in your
11 findings. And you should not express personal observations or
12 opinions.

13 And I think there's been -- there's a policy about not
14 expressing opinions and findings. But sticking to the facts
15 and addressing their requirements.

16 Q How does one express opinions?

17 A You don't really express opinions in inspection
18 reports.

19 Q How do you express them at all?

20 A Do you have an example in mind or --

21 Q I think this particular utility is incompetent and
22 shouldn't be allowed to operate a plant. How would you express
23 that?

24 A Well --

25 Q How would you bring that to the attention of your

1s-2 1 management?

2 A I guess you'd either go to your chief and tell them
3 I feel like this utility is incompetent and not capable of
4 operating. But, I think the first thing you would be asked is,
5 you know, is that a personal opinion?

6 Do you have anything to indicate that that utility is not
7 competent?

8 Q Let's say he's been inspecting that particular
9 facility for a year or so and he has a large number of documents
10 in compliance in his inspection report, and that sort of
11 conclusion has to be subjective. Incompetence is a very
12 subjective term. How would an inspector go about expressing
13 that concern to his management?

14 A Let me just address not utilities or plants, because
15 I don't inspect those.

16 Q Vendor.

17 A Let me address in AE or N triple S. If I had
18 identified a large number of deviations and an architect-
19 engineer and really felt that they weren't responsive to my
20 concerns and my findings, and that their corrective action was
21 not being completed, that they were identifying in their
22 letters of response that they were going to take whatever
23 corrective action and then I'd come back on another inspection
24 and they had not completed the corrective action, then, I
25 wouldn't have any feeling at all about now going to my

1 management and telling them that this is the case. This is
2 the problem that I am having with these people. And I am that
3 I would get complete cooperation from my management as far as
4 writing some sort of a letter to them telling them that in our
5 case, that we withdraw their letter of approval if -- approving
6 their quality assurance program if, you know, they didn't
7 start completing the corrective action that has been described,
8 and so on.

9 Probably, we would even have a management meeting. My
10 chief would go along with me and explain to the people that
11 they were not performing the duties that they were inspected to
12 meet.

13 Q Could you put that formally in a memo to your
14 branch chief?

15 A Sure. Yes. I'd have no problem at all doing that.

16 Q All right. What is your perception of the
17 relationship between I&E and NRR?

18 A There again, I think it is the same sort of thing
19 that -- it is not really like we are all NRC. It's more like
20 all separate organizations and jockeying for positions. I'm at
21 the very bottom. So, I am giving you a bottom looking up to the
22 top. I don't know. I don't have an overall management view of
23 the whole thing.

24 So, I don't know whether there is a lot of cooperation
25 between NRR and I&E or whether, you know, there is sort of an

sls-4

1 obstacle between the two organizations, even though they are all
2 within NRC.

3 Q Based on your perception, how effectively does the
4 current I&E and NRR relationship facilitate the feedback
5 of operational experience into a licensing process?

6 A You mean identifying LER's at plants and then
7 following up on those and --

8 Q Well, in a general sense, how aware is the technical
9 reviewer in the Division of the Systems Safety, or how aware is
10 the technical reviewer in the Division of Operating Reactors
11 to the concerns and problems that you are seeing as a vendor
12 inspector?

13 A You know, we write inspection reports and the
14 inspection reports sometimes have pretty substantive problems --
15 identify pretty substantive problems.

16 Q Yes.

17 A You really feel that once you've signed off on your
18 inspection report and turned it into the papermill or whatever
19 and it goes in the PDR, and so on, no one ever reads the thing
20 again.

21 BY MR. FOLSOM:

22 Q What's the PDR?

23 A Public Document Room.

24 Q Okay.

25 A And I guess the mechanism that we have or, you know,

sls-5

1 of identifying these things to licensing, is action items, action
2 item requests. An inspector, if he really --

3 BY MR. HEBDON:

4 Q Excuse me. Is that the same as transfer of lead
5 responsibility?

6 A I don't know about that. This is in the regional
7 office.

8 Q All right.

9 A What this is, it's an action item that if an
10 inspector has a problem that he feels should be addressed to
11 licensing, you know, NRR, then, he fills out a form that
12 identifies what the problem is, and I think it's in the -- it
13 goes to the computer system. And it's directed to I&E
14 Headquarters and then somebody takes responsibility for it here
15 in Bethesda and sees that the proper organization in NRR gets
16 this problem directed towards them.

17 And mainly, these action items request some sort of action
18 on the part of NRR. And it takes them an inordinate long
19 period of time to get any sort of response back on these things.
20 I think that may be a problem with the system because after a
21 while, the inspectors get to the point where they feel like,
22 you know, I'm identifying this thing and maybe it's a year
23 before I hear anything about it. And, you know, what's really
24 the necessity for continuing to write these action items when
25 I'm not really hearing, you know, what resolution is taking

sls-6

1 place.

2 Q Is it your perception that most of these action items
3 eventually reach NRR or are most of them handled at the I&E
4 headquarters?

5 A I think they do get to NRR.

6 Q What is the basis of that perception?

7 A Because sometimes, we get action back on them and it
8 comes from NRR. And I don't guess I ever get telephone calls,
9 you know. When I submit an action item, I don't finally get a
10 telephone call from whoever has been given the responsibility in
11 NRR, asking me to expand on what, you know, the details of this
12 problem that I might have.

13 And probably, that would be a way that you would expect the
14 system to work, if it were working effectively, and there
15 would be -- when it finally got to the person that had the
16 responsibility, that he would get back to the inspector that
17 identified his concern and that they would work together, you
18 know, trying to get the details worked out so that the person
19 in NRR could actually perform an analysis or an evaluation of
20 the problem.

21 Q Okay. Is there a difference in your inspection
22 procedures in philosophy with respect to safety related
23 systems as opposed to nonsafety related systems?

24 A I pretty much stick to the safety related systems
25 in our inspections because -- especially our technical

sls-7 1 inspections, because only if you identify a problem with a
2 nonsafety related system, it tends to not become as much of a
3 concern as if you've identified a problem on a safety related
4 system.

5 BY MR. FOLSOM:

6 Q Tell me as a layman, I'm the layman, the difference
7 between a technical inspection and any other kind of an
8 inspection.

9 A Oh, okay. Vendor Inspection Branch, which I'm in,
10 Program Evaluation Section, we're responsible for the
11 architect-engineers and nuclear suppliers. And we don't have
12 anything to do with pumps and valves A component branch.
13 That's also a Vendor Inspection Branch.

14 We have requirements in the manual chapter to inspect the
15 Quality Assurance Programs of these AE's and N triple S's. The
16 Quality Assurance Programs are usually developed in the top
17 Report, which is approved by a Quality Assurance Branch in NRR
18 and that describes their program for conducting their activities.
19 It is the 18 criterion in 10 CFR, Part 50 and Appendix B.

20 And, of course, you know that there is procurement and
21 audits and things like that that are programatic. Then, there
22 are things like the activity that I am really interested in is
23 design and control.

24 Q Is that technical?

25 A That's technical.

sls-8

1 Q And all of your work is technical then?

2 A All of my work is technical, yes.

3 Q Okay.

4 A In our group, we -- I guess up until about a year and
5 a half ago, we inspected the programatic aspect of quality
6 assurance. And, at that time, we began to deviate from that.
7 And myself and another gentleman in our group, started to look
8 more at the technical aspects of the Quality Assurance Program.

9 In other words, not just the quality assurance procedures and
10 so on that they had for conducting the design activities. But
11 actually, were they conducting the design activities correctly?

12 It was design verification, is what it was. And after that
13 time, I have nearly devoted all of my time strictly to that at
14 the AE's and N triple S's. I've nearly entirely spent my time
15 looking at design verification of calculations, computer codes,
16 input from the codes and output from the codes, things that NRR
17 does not have an opportunity to see. Because --

18 Q Now, would you put your answer to me about the fact
19 that all of their work is technical, together with Mr. Hebdon's
20 question about what is the difference in your inspection
21 procedures and philosophy for safety related versus nonsafety
22 related systems? Your answer to him was that you spent -- that
23 you tended to give a more technical inspection to safety related
24 features.

25 A Yes.

sls-9
1 Q What kind of an inspection would you give to non-
2 safety related systems?

3 A I don't really look at nonsafety related systems.

4 Q That's what I'm driving at.

5 A Yes. The condensor turbine generator, electro-
6 hydraulic control system, all of that, I don't -- I look
7 strictly at mainly the things that are in containment.

8 Q Is that someone else's responsibility to look at
9 the nonsafety related items that you have just listed?

10 A I am not sure that we do look at nonsafety related
11 systems at all. The components that are supplied for nonsafety
12 related systems, I think are component suppliers who actually
13 look at the qualifications of those.

14 But, as far as the design of the nonsafety related
15 systems, I don't think, since I've been with NRC, that I have
16 ever looked at a system like that.

17 Q Okay.

18 BY MR. HEBDON:

19 Q What is the basis for deciding that a system is
20 safety related?

21 A Well, I guess the design specification indicates
22 whether it is Safety Class 1. I usually try to pick those
23 systems that are Safety Class 1 systems. I can usually, you
24 know, from the training programs that I've had in the NRC, I'm
25 able to recognize, you know, by the title of a system, whether

sls-10

1 it's safety related or not safety related.

2 And I try to stick with those that I am absolutely sure
3 are safety related. This last inspection that I made at
4 Browning Route, I looked at the reactor head degassing system
5 because of Three Mile Island. And I was interested in what
6 was the difference between how a Westinghouse plant would handle
7 that sort of a problem, with a vapor in the head of the vessel
8 and that had the same problem. Because there are no automatic
9 control valves in that system. There's a spool piece that has
10 to be placed in place before we can do fuel handling operations.
11 And that's when they degassed that head.

12 And so, they would have had the same problem. But, I
13 selected that system because obviously, the safety related
14 system and --

15 Q It is a safety related system?

16 A It's a Safety Class 1 system.

17 Q All right. How is it classified as a safety system?
18 What's the basis for deciding that that system is a safety
19 related system?

20 A Is this an examination?

21 Q No, no, not at all. This is information gathering.

22 A Okay.

23 Q Examination, you have to know the answer before you
24 ask the question. Answer any part of the reactor coolant system
25 that you could lose reactor coolant and radioactivity from the

sls-11 1 primary coolant system, I would think would be a Safety Class
2 1 system.

3 Q Do you know if the PORV on a B&W plant is a safety
4 related system?

5 A I don't know. I've heard words that it's not. And
6 I can't believe that it's not a safety related system because
7 it's a pressure boundary where the primary pressure reactor
8 system.

9 Q As I understand it, the valve itself is a pressure
10 boundary but the control to the pressure valve isn't. Would
11 that surprise you?

12 A No. In my inspections, I've seen a lot of systems
13 that I thought, you know, in my own mind, appeared to me to be --
14 this appears to be a safety related system. You know, and yet,
15 it was classified as nonsafety related. And I guess the
16 c. erion is like you said. It's the pressure boundary to the
17 primary coolant system.

18 Q Who makes the determination as to whether or not a
19 system is safety related?

20 A You know, that's a good question. It seems to me to
21 be that each AE and N triple S makes this judgment on his own.
22 And we've been trying -- I don't know whether we did it by
23 action item or anything of that sort. But, we've been trying to
24 find, you know, someone in NRR that would classify systems as
25 safety related or nonsafety related and put out a list of safety

sls-12

1 related and nonsafety related systems so that everybody in the
2 industry would have the same guidelines.

3 But, there doesn't seem to be a single criterion that
4 establishes which systems are which. And today --

5 Q Have you made that request formally?
6 Do you know if there is any documentation of that request?

7 A I don't know if we have or not. But we have
8 struggled with this for years.

9 Q Would you, when you return to the region, attempt to
10 locate any formal requests or any document attempt to identify
11 or to resolve this issue of what systems are safety related and
12 what systems are not and forward a copy to us, if you can find
13 it?

14 A I'll be happy to.

15 Q Okay. You'll be getting a copy of the transcript,
16 so there's no real need to make a note of that.

17 A Let me do it so that I can start action now.

18 MR. HEBDON: Let's go off the record for a minute.

19 (Discussion off the record.)

20 BY MR. HEBDON:

21 Q Back on the record.

22 Have you ever attempted to have a particular system
23 reclassified as safety related?

24 A No. Because there are enough systems that are
25 safety related that it keeps me busy just inspecting those. I

sls-14

1 would be easy to do if someone wanted to do it?

2 A I think NRR, if they made a list and said these
3 systems are classified and within these systems, these pumps are
4 classified safety related, I think you'd need a listing like
5 that. Somebody might need to do something like that in order
6 for it to be effective.

7 Q And what I'm trying to get at is has any inspector
8 that you know of, out in the field, ever identified a system that
9 they thought ought to be safety related that wasn't and made
10 any effort to have I&E headquarters or NRR reclassify that item
11 from nonsafety related to safety related?

12 A Not to my knowledge.

13 Q Is there any perception in your mind as to whether
14 or not it would be feasible to do? Could an inspector do that
15 if he wanted to do it with some reasonable probability of
16 success?

17 A I feel like it would be successful to do that. I
18 don't think it would be an impossibility.

19 Q Then, why hasn't anyone ever tried to do it?

20 A I don't have an answer for that. I know that I've
21 heard other inspectors say that this system is not classified as
22 safety related, and I feel like it is safety related and yet,
23 it was dropped at that point

24 Q Okay.

25 A And I know I probably said the same thing myself in

sls-13

1 don't have any trouble finding a safety related system to
2 perform my type of inspection on.

3 Q Have you ever been concerned that a particular
4 system was not safety related that you felt should be?

5 A Yes. The fact is, I can't remember, but it seems
6 like someplace I went, the aux feed system was not considered
7 to be a safety related system. And in light of Three Mile
8 Island, it appears to me that maybe it obviously should be a
9 safety related system.

10 Q Did you feel any responsibility to have the systems
11 reclassified as safety related?

12 A I think all of us have, and I think all of the
13 inspectors have discussed it amongst ourselves, you know.
14 Even those in reactor operations and so on. And I don't know
15 if there has ever been any formal request.

16 I think something, you know -- you've got the feeling that,
17 from discussing it with other guys, that NRR had never -- that
18 somebody had asked NRR to do this, to classify safety versus
19 nonsafety related and that there had never been any sort of a
20 list that had ever come out that identified which systems were
21 and were not.

22 Q Do you know of any cases where anyone has ever
23 tried to get a system reclassified?

24 A No.

25 Q Was there any perception that such a thing is --

sls-15

1 the discussions, had some concern about a system that I felt
2 like should be classified safety related. The fact is, on one
3 of my inspections, I identified -- let's see. At United
4 Engineers, I identified that the condensate storage tank and
5 demineralized water storage, which are the primary source of
6 supply for the aux feed system, they were both classified as
7 nonsafety related. They were not Safety Class 1 systems.

8 But, the problem was that they had taken the tanks from --
9 let's see. They had moved the tanks outside the building and
10 in doing so, they had originally established the boundary of
11 the auxiliary building as the limit for any Safety Class 1
12 systems.

13 And then somehow, the -- in the design, the tanks were
14 moved to the outside of that and they didn't get reclassified
15 as Safety Class 1. This is a deviation or an unresolved item
16 that I have at United Nuclear -- oh, United Engineers right
17 now. That I feel would require some NRR assistance.

18 Q How long has that issue been unresolved?

19 A When did I go to United Engineers?

20 Q Approximately.

21 A Let me see. IT was sometime this year. May 21st
22 through 25th, 1979.

23 Q Do you feel then that you are now going to request
24 that NRR reclassify those two tanks as safety related?

25 A No. The United Engineers have already taken the

sls-16

1 action to reclassify them when I identified that they were not.
2 They reclassified them as Safety Class 1.

3 Q What plant would that be associated with?

4 A I don't have my inspection report. Let's see if I
5 can remember. Just guessing, I would say WPPS-1 and 4.

6 Q Could you double-check for sure when you get back
7 to the office and let us know for sure?

8 BY MR. FOLSOM:

9 Q Would you express that, WPPS?

10 A Washington Public Power Supply Service or whatever,
11 WPPS.

12 BY MR. HEBDON:

13 Q Washington Public Power System, W-P-P-S.

14 A Do you want me to report back to you on that?

15 Q Yes, if you would.

16 A Okay.

17 Q Now, let's say that the architect-engineer in this
18 particular case said no, we don't want to reclassify that as
19 safety related. What would you do?

20 A I would then -- I'd have a problem with it.

21 Q What would you do?

22 A I would prepare an action item for -- to go through
23 the Office of Inspection Enforcement to NRR and appraise them.
24 The fact is, I'd probably call the WPPS project manager when I
25 got back to the office for NRR and tell him what I found and that

sls-17

1 I felt that those two tanks were -- should be classified safety
2 related and United Engineers disagreed with me. And that --
3 that I would be concerned if they were constructed as nonsafety
4 related structures.

5 Q Has that particular design been approved by NRR?

6 A They haven't submitted an FSAR, I don't think.

7 Q Do they have a construction permit?

8 A Yes.

9 Q Now, they have gone through the first preliminary
10 design?

11 A Yes.

12 Q In the course of that preliminary design, was there
13 any indication that you've been able to identify, that the issue
14 of whether or not those two tanks were or were not safety
15 related came up?

16 A No. It was an oversight on the part of the United
17 Engineers.

18 Q Was it equally an oversight on the part of NRR that
19 they didn't catch it, either?

20 A No. I think probably -- I don't know this for sure.
21 But, I can't remember. I know I looked at the PSAR and I looked
22 to see where they were located in the PSAR. And I think that in
23 the PSAR, it shows them located within a safety, you know,
24 Class 1 boundary.

25 Q Which would have made them safety related?

sls-18 1 A Yes, I am pretty sure. And then, of course, when
2 they looked at additional, you know, newer drawings where the
3 things had been moved, then I questioned the fact that they were
4 not classified as safety related. Because the design
5 specification did not have them classified as safety related,
6 Class 1 systems.

7 And so then, when I addressed this problem, then United
8 Engineers followed up on it while I worked on the inspection to
9 find out how the oversight had occurred. And the tanks were
10 moved and they had been reclassified. And that was the
11 problem.

End t-4

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sls-1

1 Q Okay.

2 A And before I left, they had done the design change
3 requests and all of that sort of thing to get those things
4 reclassified as safety related.

5 The next problem that I had was the specifications that
6 were sent out to the supplier to fabricate the tanks, have them
7 identified as nonsafety related. So, of course, that's another
8 case in which I found that the Response spectra was incorrect.

9 And so, the tanks were being designed to a less conservative
10 Response spectra and were not classified safety related. So,
11 I wanted them to verify the analysis performed by the supplier
12 to assure that the tanks were being fabricated, in fact, to the
13 new Response spectra.

14 And so, of course, when I leave that, United Engineers
15 is not my inspection of responsibility. I was assisting on that
16 inspection.

17 And so, I don't know what follow-up has occurred on that.
18 But I have a feeling that I will be required to go back on the
19 next time they go back on an inspection of United Engineers, to
20 follow up on that particular item and hopefully, I can get
21 someone from NRR that's technically competent in that area to
22 go along with me and take a look at the reanalysis to assure
23 they are, in fact, fabricated to the more stringent requirements.

24 Q The fact that those tanks are not safety related,
25 have been affected in the FSAR?

1s-2

1 A I'll bet they would have missed it all the way
2 through.

3 Q They still would have shown the tanks as being
4 inside the auxiliary building?

5 A It would have probably shown them being outside the
6 auxiliary building, but it would have not addressed them as
7 safety related systems.

8 Q Do you have any perception as to whether or not that
9 would have been identified by NRR as a problem?

10 A I've never worked in NRR. So, I don't really know.
11 I don't really know what details they really look at in an
12 FSAR. There's so much information in those, 20, 25 volumes. I
13 don't see how anyone could look at every page and evaluate
14 every single system and find errors of that sort.

15 It seems to me that it would just be a monumental problem to
16 do that. It would take a tremendous amount of manpower to do
17 that. I don't know how they operate in NRR, but I am sure
18 they assign certain sections of it to certain groups that have
19 competence in that particular area. And one group was used
20 over and over and over again with a certain system, rather than
21 the whole FSAR. And maybe people, if they do that over and
22 over again, they'll pick up something like that quickly.

23 Q Okay. Do you know of any other precursory events
24 that are relevant to the accident at TMI?

25 A Yes.

ls-3

1 Q What?

2 A I'm going into Westinghouse Monday on a Part 21
3 inspection that has to do with Beznau-1 in Switzerland, which
4 is a foreign plant in which they had a transient that supposedly
5 is similar to Three Mile Island in 1974. And the purpose of
6 Denny Ross and his group, are responsible for initiating
7 inspection. And my responsibility is to go in and look to see
8 if after Three Mile Island, did Westinghouse go back and look
9 at all transients at foreign and domestic plants that might
10 have been of the same sort of situation that happened at
11 Three Mile Island.

12 And under Part 21, if they did look at Beznau-1 and since
13 they had plants domestically, that was the same vintage as that
14 plant, did they, in fact, or why didn't they, in fact, report
15 that as a Part 21 after Three Mile Island?

16 So, that's what I'm going in Monday to Westinghouse on.

17 Q Okay.

18 BY MR. FOLSOM:

19 Q May I ask a follow-up on that? I was going to ask
20 you anyway before you mentioned this. Did you -- did you know
21 the content of the Westinghouse briefing about Three Mile
22 Island? Were you there? Do you --

23 A No.

24 Q You learned about it --

25 A I learned about it from discussions with people that

1 were there. They said that -- you know, I said that I was
2 just discussing with them, you know, what action has Westinghouse
3 taken, you know, with respect to Three Mile Island. How much
4 have you all gone back and really looked at Westinghouse plants
5 to see how closely related your systems are to their systems
6 and whether or not this could happen in a Westinghouse plant,
7 and so on.

8 And I understand that NRR had already sent, I guess, a
9 request to get information from all of them, from Combustion,
10 Westinghouse, and to really look into this and see if they had
11 had similar problems or could have similar type problems.

12 Q What kind of an answer did you get from the people
13 that you made these inquiries of?

14 A The first thing that -- right after Three Mile Island
15 that they had all of their engineering people responsible for
16 design activities on Westinghouse plants into this big meeting
17 in which some people -- I guess after Three Mile Island, the
18 NRC, the utility or somebody must have requested that Westinghouse
19 Combustion send some people to Three Mile Island for
20 assistance or something.

21 And when the people came back from Three Mile Island that
22 had been there, providing this assistance, of course, they were
23 the ones that were most familiar with what the activity and
24 the problem was there. So, these guys debriefed everybody at
25 Westinghouse in the design and the quality assurance. Because

sls-5

1 I guess some of these guys from Quality Assurance were there
2 and told them, you know, just a complete description of what
3 had happened, how this was significant. And then all of them,
4 I guess, should take a look at Westinghouse systems and see if
5 this sort of thing could happen to us.

6 And I guess they were requested by NRR to do this, anyway.

7 Q Did that debriefing surface the Beznau incident?

8 A No, I don't think so. I think the Beznau thing
9 was identified by the Three Mile Island Commission or you all.
10 Was it your group that identified it?

11 MR. HEBDON: Yes, it was.

12 THE WITNESS: Okay.

13 BY MR. FOLSOM:

14 Q Okay.

15 A But that's right. Sure. One of the letters that I
16 had in the portfolio that Denny Ross sent me is a letter from
17 your group that tells them about Beznau and wants to know if
18 this should not have been reported or something to that
19 effect. I only had four hours to look at that package of
20 information last week. I came in. I've been on an inspection
21 for four weeks in a row now. Every week I've been on two
22 investigations for allegations. I've been on an inspection. I
23 came in this last week. This was a short week anyway because
24 of the holiday -- you know, the holiday. I had two inspection
25 reports to get out this week, plus I had to review for -- I had

sls-6

1 to get ready for this thing. All this was was travel, of
2 course.

3 But, I didn't even get to read my previous deposition which
4 I wanted to do. And then Monday, I've got to go to Westinghouse
5 and I've had four hours this week to look at that information.
6 And I probably have to do a lot of the preparation at Westing-
7 house, once I get there.

8 Q You wanted to clear the record for something.

9 BY MR. HEBDON:

10 Q I thought it would be fair so we all know what they're
11 doing, to clear the record, the letter that you have from the
12 special inquiry group, I wrote that. So, just to make sure
13 that we all know who has done what to whom.

14 A I remember that was in the package.

15 Q Yes.

16 A And I looked at it briefly, just read it once and I
17 didn't even notice your name being there.

18 Q I'm not even su it's on it. Just to keep the
19 record straight so you don't feel we are trying to sandbag
20 you with anything --

21 A No.

22 Q Do you have any additional information that might be
23 relevant to our inquiry into the events surrounding the accident
24 at TMI?

25 A No. I guess it's appalling to me that two valves

sls-7

1 could be closed and cost a utility \$400 million. If those two
2 valves on the feed water system had been opened, this event
3 would never have happened. It is just appalling to me that
4 that could happen.

5 Q In what respect?

6 A I guess not so much that people don't make human
7 errors and do that sort of thing, but to think that two valves
8 in a system like a nuclear plant that are on a feed water system,
9 that I really believe someplace is not even safe to relate it,
10 I may be wrong, could cost a utility \$400 million, you know.

11 Maybe we missed something. I don't know. Maybe we should
12 have classified -- had some system for classifying systems, you
13 know. I don't know that either. It is all Monday morning
14 quarterbacking now. Now, it's hard to tell.

15 Q Okay. Have we failed to elicit any information that
16 you believe to be important?

17 MR. HEBDON: Do you have any additional questions?

18 MR. FOLSOM: I have no further questions.

19 MR. HEBDON: Do you have anything else to add?

20 THE WITNESS: No.

21 MR. HEBDON: Okay. That completes the interview.

22 Thank you very much.

23 (The interview concluded at 3:30 p.m.)

Insert #1

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PROFESSIONAL QUALIFICATIONS FOR DONALD GENE ANDERSON

Education

University of Texas, 1955, B.A. Physics/Math
Southern Methodist University, 1961, M.S. Nuclear Engineering
University of Texas, 1972, Ph.D. Nuclear Engineering

Certification

Registered Professional Engineer (Nuclear) State of Texas, 1974

Experience

From 1955 to 1961, I was employed by General Dynamics/Fort Worth as a Nuclear Engineer in the Aircraft Nuclear Program. During that time my assignments included:

Shielding Studies 2 years

Reactor Operator 3 years

Reactor Safety Engineer 1 year

From 1961 to 1965, I was employed by the University of Texas, Austin, as a Reactor Supervisor. During that time my assignments included:

Safety Analysis Report Review, Construction, Installation and Startup of 250 kw TRIGA REACTOR 1 year

Supervisor - Senior Reactor Operator 3 years

Reactor Safety Committee

In 1965, I was employed by the USAEC as a Reactor Inspector, Division of Compliance, Region II Atlanta. My inspection responsibilities were:

University of Virginia Reactor
Babcock & Wilcox Training Reactor and Pool Reactor
University of Florida Reactor
North Carolina State Reactor
Carolina Virginia Tube Reactor (Power)
BONUS (Power-Puerto Rico)
Lockheed Research Reactor

From 1966 to 1973, I was employed by Texas A&M University, Nuclear Science Center, College Station, Texas. During the seven (7) years at the facility, I held the following positions:

Senior Reactor Operator

Reactor Supervisor

Manager of Reactor Operations

Assistant to the Director, Nuclear Science Center

I returned to the University of Texas, Austin, in 1973 in the following position:

Reactor Laboratory Supervisor

In 1975, I was employed by the USNRC in the Office of Inspection and Enforcement, Region IV, Arlington, Texas. During the past four and one-half years (4½), I held the following positions:

Reactor Inspector

Principal Inspector

I am also an Associate Professor of Mechanical Engineering on the evening school faculty of the University of Texas at Arlington, where I teach courses in Nuclear Engineering.