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UNITED STATES NUCLEAR REGULATORY COMMISSION

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INTERVIEW OF PHILIP BENDER

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
AEOD INTERVIEW

Nuclear Regulatory Commission
Room 262
4340 East-West Highway
Bethesda, Maryland

Thursday, January 16, 1986

The interview convened at 3:00 p.m.

PRESENT:

PHILIP BENDER, Interviewee

FREDERICK J. HEBDON
Chief Deputy Director AEOD
Incident Investigation Team

J. T. BEARD
Engineer
Incident Investigation Team

GORDON EDISON
Incident Investigation Team

P R O C E E D I N G S

MR. HEBDON: Just to give you some background as to what this is all about, the purpose of these interviews is we have been established as an incident investigation team to investigate an incident that occurred at Rancho Seco on December 26 of 1985. Basically what happened was they lost ICS power and that produced a transient that resulted in a rather severe overcooling. One of the things that we are supposed to do is to look into that event in considerable detail but just that event. So it is a fairly narrow scope but a lot of depth.

One of the things that we are trying to look into is some of the history that led up to that particular event and particularly associated with the ICS because of the fact that that was the system in which the failure occurred that initiated the transient. It also caused them a lot of problems during the event. So what we are doing is we are trying to interview a lot of different people.

Just some background on the interviewing process, we are conducting these interviews and as you can tell, we will prepare a transcript from it. The purpose for that really is twofold. One is as a convenience to us so that we have a record of what was said that we can use then in preparing our report. The other thing is that copies of all of these transcripts will eventually go in the public

1 document room so that there is a complete record of the
2 investigation that we conducted.

3 Now, just as a point of background, if at any
4 time during the interview you want to go off the record for
5 some reason to discuss something or to just to take a break
6 or whatever, please let us know and we certainly can do
7 that. It is no problem at all. The other thing is that we
8 will give you an opportunity to review the transcript and
9 to make any comments, either on things that you think may
10 have been transcribed incorrectly or on things where it
11 wasn't what you really meant to say. Sometimes when you
12 read it over, you realize that you misspoke and you said
13 something you didn't really mean to say. And you can
14 provide a comment to say that that is not what you intended.
15 We will give you the opportunity to do that and that will
16 then become part of the record. Okay?

17 Any questions before we start?

18 MR. BENDER: That sounds like a reasonable
19 approach.

20 MR. HEBDON: Fine. J.T., do you want to start?

21 MR. BEARD: Okay.

22 Whereupon,

23 PHILIP BENDER

24 was called as a witness, and was examined and testified as
25 follows:

EXAMINATION

BY MR. BEARD:

Q Phil, as I mentioned on the phone to you when I called you and asked you to come over, the concern is at Rancho Seco they lost ICS power. But the concern about loss of power to the ICS and the NNI has been around a long time. So we are going back through and sort of trying to get a good understanding of what has happened in the past and how, if at all, that relates to whatever the situation at Rancho Seco.

Now, in your situation, when you were employed by the NRC, I believe you worked in the instrumentation and control systems branch.

A Correct.

Q And you were assigned to do a review of utilities' responses to Bulletin 7927. And I believe that what we would really like to understand the most is, what did your supervision explain to you as that job? How did you do it? What kinds of things did you like and dislike and basically help us understand how that review was conducted and, therefore, how you got the results that have been documented? Why don't you just start and tell us in your own words when you got this assignment, who gave it to you, and what you remember about how that assignment was characterized.

1 A Okay. I don't remember when I got the
2 assignment. But I was given it from Tom Dunning who was my
3 section leader at the time. Or else it may have been, it
4 possibly could have been an outgrowth of one of the
5 engineers working on it, Dick Wilson. I just recalled his
6 name when I went through here, who basically wasn't able to
7 finalize it and as part of my working there and working in
8 his vicinity and being familiar with this to a small degree
9 and him giving me the overview of what was going on here, I
10 don't recall if I was either assigned it or volunteered to
11 try to straighten it out. So that is probably how I got
12 into it.

13 I think I worked on it about six months or so,
14 maybe, prior to its -- the report which looks to be June
15 '82. So probably the beginning of 1982 or thereabouts.
16 And I just reviewed the documentation you gave me a little
17 while ago, just looked at it quickly.

18 Q For the record, let me make sure that this is
19 clear. In order to help Mr. Bender refresh his memory of
20 this work some years ago, I gave him an hour or two ago a
21 copy of Bulletin 7927 itself and a copy of his write-up
22 with the various attachments which is a memo dated June 1,
23 1982.

24 A So basically in reviewing it, I recall just
25 looking at this now is that there were a lot of what I

1 thought were fairly nit-picking reasons for why it wasn't
2 finalized, just statements that licensees hadn't made or
3 information that they hadn't provided or in many cases they
4 had provided but there was lack of coordination with I&E
5 and some of the other people and we didn't have it in our
6 files. Some things were actually closed out and we didn't
7 even know it.

8 So basically I took it upon myself or was
9 directed to review each one of the action items that was, I
10 felt, open -- in other words, indicated as open -- and try
11 to close them all by identifying each specific concern and
12 getting a response to each of those concerns and
13 coordinating with I&E people at the plant for items that
14 seemed to be questionable or that needed further
15 investigation or -- and also coordinating with the I&E
16 person who was here in this local region who was
17 responsible for that.

18 BY MR. HEBDON:

19 Q Who was that person?

20 A I think -- maybe his name is in here. I saw
21 some names in here but I don't remember.

22 Q That is okay. I thought maybe you remembered it.

23 A It would be one of the people on my cc's here.

24 (Witness examines document.)

25 I don't really remember who it is.

1 Q That is okay. Let's go on.

2 A Okay. So -- would you like me to talk about
3 something specifically?

4 Q Well, you took over the review. You mentioned
5 something about, I guess you used words to the effect that
6 you felt that it needed to be straightened out. Was there
7 a problem with it? Was there a problem with the review?

8 A It didn't seem to be coordinated completely. A
9 lot of loose ends left hanging. And I guess it wasn't -- I
10 am just thinking of impressions I might have had back then.
11 It looked like a concerted effort could close the gap
12 between open items and -- close the gap on open items.
13 Most of them seemed relatively straightforward to take
14 action on from our standpoint.

15 Q When you did your review, what basically did you
16 see as the issues that needed to be addressed? What was
17 your understanding of the underlying issues associated with
18 the bulletin, to start out with?

19 A I don't recall right now, other than in
20 reviewing it. What I recall just seemed to come to mind as
21 I was reviewing this recently, within the last hour, was it
22 identified seven main items that we wanted to clarify for
23 each plant which were in effect from the earlier review,
24 items that were identified as the minimum things that had
25 to be verified before we could say, the licensee properly

1 responded.

2 BY MR. BEARD:

3 Q Who developed this list of the seven items? Was
4 it your list or did somebody give you this list?

5 A It looks like the list essentially came from the
6 bulletin and from Dick Wilson's earlier memo where he
7 identified additional items to be taken by the licensee.
8 They were trying to get a supplemental bulletin put out, I
9 think. And instead of getting all the documentation and
10 reviewing it just like a major review that we do on a new
11 plant, the idea was to get them to confirm that they had
12 reviewed the items identified in the bulletin and had --
13 and get them to confirm that they could satisfy all the
14 specific items called out in the bulletin. I could read
15 them off but you know what they are.

16 MR. HEBDON: That is okay.

17 BY MR. BEARD:

18 Q The bulletin itself had three action parts to it
19 and then a fourth one was just an item that said, give us a
20 report. But of the three action items, did you feel like
21 your review covered all three of those or some part of it?

22 A Okay. No. There are three action items, one of
23 which, the middle one, I think, was an I&E follow-up type
24 thing. They were supposed to check the procedures, I
25 understand. And I was supposed to review the first and the

1 last item, the 1 and 3.

2 Q So the middle item was not in your review?

3 A Right. It was not part of my review. Although
4 I think, as part of my rereview on comments and such, if
5 there was -- if there was an open item, that I coordinated
6 with the I&E person there to ask if they had done their
7 portion of the review.

8 Q This would be the I&E or regional or resident
9 inspector at the plant?

10 A Yes. Right.

11 Q Getting back still with the scope of what you
12 saw the job as, not long after this event, by that I mean
13 the Oconee event and the bulletin and getting the responses
14 in, there was the Crystal River event and the B&W plants as
15 a subset of the 60-some that you reviewed here were asked
16 to answer some additional questions and then later there
17 was even some orders issued confirming that they were
18 agreeing to do certain actions.

19 Now, to what extent was that additional set of
20 questions and the order part of the scope of the work that
21 you took on?

22 A As far as the review of the Crystal River event,
23 as you probably know looking at the rereview, that was a
24 specific item on my checklist for any of those plants. And
25 for the ones that it did not apply, I wrote "not applicable."

1 And for Rancho Seco, it did apply. And I would assume that
2 in the folder for Rancho Seco on this report that I would
3 have a letter that would tell me that they had done the
4 rereview of their Crystal River event, as it was called to
5 do, and that they had provided some convincing information
6 that they had done a good job.

7 BY MR. HEBDON:

8 Q That is a key question that comes to mind is,
9 when you looked at the answers to each of these seven
10 different items, did you look simply to see that the
11 licensee indicated that they had done it or did you look at
12 the supporting information, the underlying information that
13 was provided by the licensee to determine whether or not
14 you agreed that in fact they had done an adequate job?

15 A That is a good question. I am not sure in all
16 cases. Looking over the reports that I was just talking
17 about here, I see that the goal originally was to review
18 all these responses as if we were doing a safety evaluation.
19 But then, because that became so cumbersome, we backed off
20 to the point where we would ask them to confirm that they
21 had studied the problem, identified any deficiencies, made
22 any -- told us what they were going to do about it. And if
23 there was a problem, to tell us how they were going to fix
24 it. And we would study how they said they would fix it and
25 if we had a problem with that, we would go back to them.

1 But if they studied the problem and told us that they
2 didn't have any deficiencies and indicated that they had
3 looked at it thoroughly as opposed to maybe using words
4 that weren't thorough, you know, in that case we may have
5 just agreed with their analysis, if they went on the record
6 to say that.

7 Q So then you felt that if they made a fairly
8 declarative statement that they had done a particular thing
9 that was called for, you pretty much took that statement at
10 face value?

11 A I recall that. In fact, as I look at my
12 checklist legend, one of the problems was in that everybody's
13 response would be, you know, using the English language and
14 if they didn't all use the very solid affirmative response,
15 in some cases that was cause to go back to them and ask
16 them, did you really look at all aspects of it? Did you
17 check all the circuits, or did you only look at some of the
18 power lines. Because then we would raise the question in
19 our mind, are they just kind of giving us what they think
20 is sufficient or did they do a complete job? And we would
21 try to convince ourselves that they had looked at every
22 applicable circuit and bus and that was the -- if they
23 would go on record and told us they had looked at every
24 single bus for this problem area, then I think we were
25 satisfied with that. We didn't independently review all

1 their drawings or, you know, documentation to confirm
2 independently that they didn't have this problem.

3 In some cases, I sort of recall there were some
4 cases where we had some questions based on their
5 information and I could be getting mixed up with another
6 bulletin, 8006, and I would recall maybe talking to J.T.
7 and some other people, getting some drawings from the plant
8 and studying them and see if maybe there was more to this
9 than what they were telling us. But I think that was more
10 in the line when they raised the doubt in our mind about
11 their response. Then we would take a little closer look at
12 it.

13 As I look at the response here for Rancho Seco,
14 that didn't appear to be a problem response in that they
15 didn't identify any problems and only the fact that a
16 response where they say that they conform may have used
17 some word that was less than 100 percent solid conformance,
18 but it seemed like that is what they were trying to tell us.
19 So we gave them the benefit of the doubt on that.

20 BY MR. HEBDON:

21 Q But you didn't look at the data that they
22 actually provided to decide whether or not you agreed
23 independently that in fact they had answered the question?

24 A Well, if they provided the data, then we did.

25 MR. EDISON: The basis for their statement.

1 THE WITNESS: I am not sure what data they
2 provided.

3 BY MR. HEBDON:

4 Q We have looked at the Rancho Seco event and we
5 have had benefit of looking at one response from one plant
6 and not having to deal with some 60-odd responses that you
7 were faced with. But if you look at the response that
8 Rancho Seco gives, it seems like there was some confusion
9 on their part as to what the question was that was being
10 asked. You know, they went in and the original event at
11 Ocone was an event where they had a loss of power to one
12 of the supply buses and an automatic bus transfer failed to
13 transfer and as a result, they ended up losing the power to
14 the NNIs.

15 Now, in response to the discussion about ICS, at
16 Rancho Seco, they basically described the same structure.
17 They have two buses with an ABT that allows it to shift
18 from one to the other. But they then go on to conclude
19 that because of that they don't have a problem so they
20 don't have to take any action.

21 Now, that seems a little strange in light of the
22 fact that that is exactly the configuration that Ocone had
23 and obviously they are the ones that had the problem that
24 precipitated the whole issue in the first place.

25 And so I guess we are having a little bit of

1 difficulty understanding what was looked at and was that
2 looked at in the sense of whether or not the conclusion
3 that they reached was reasonable from the information that
4 was provided.

5 A Did they provide any additional information in
6 that response? I don't recall them having a major response,
7 I mean a large response.

8 Q I am not sure what constituted a large response.

9 A I mean a detailed -- I don't recall what
10 supportive documentation they provided to show what they
11 did.

12 MR. BEARD: They were one of the few plants that
13 had actually submitted their response a few days prior to
14 the Crystal River event. Most of the plants, the 90 days
15 hadn't quite run out yet. And so their response was about
16 four pages long, isn't it?

17 MR. HEBDON: They have one response on February
18 22nd.

19 MR. BEARD: That is the one I was thinking of.

20 MR. HEBDON: That runs eight pages.

21 MR. BEARD: Then after Crystal River they -- we
22 had all these meetings and there were the supplementary
23 questions that I mentioned earlier and they gave a very
24 long response dated March 12, 1980.

25 MR. HEBDON: 21st.

1 MR. BEARD: Well, I got the numbers transposed.

2 MR. HEBDON: I am sorry. March 21 is a
3 different answer.

4 MR. BEARD: March 12 was the second one and that
5 was a response that was like a quarter-inch thick. But
6 that is why I was trying to understand the scope of your
7 job as to whether it would have included the later response
8 because those really were not 7927 per se. They were the
9 addons but they weren't the order. I can see sort of three
10 distinct phases: the bulletin itself, supplementary
11 questions for B&W plants, and then the orders. It wasn't
12 clear whether you reviewed that middle territory, the
13 supplementary questions and their responses.

14 At any rate, going back to what Fred was asking:
15 It did seem like in our reading of the response from Rancho
16 Seco, they seemed to misunderstand the problem and
17 basically say, we don't think we are going to lose power to
18 the bus. Therefore, we don't think it is necessary to do
19 the kinds of things that you are suggesting be done based
20 on having lost bus. When I read it, I was left with that
21 flavor.

22 For example, one part of the bus, one part of
23 the bulletin that you did not review but is a good example
24 of this had to do with developing emergency procedures.
25 And they gave that kind of an argument that we have

1 redundant power supplies and so we are not going to lose
2 power to the bus. Therefore we are not going to develop
3 any emergency procedures. And the whole document has those
4 kinds of flavors running all through it.

5 BY MR. HEBDON:

6 Q Specifically in the case of the integrated
7 control system, what they say is the effect of a loss of
8 power to the ICS will result in a power transfer to the ICS
9 by an automatic transfer to a non-class 1-E bus. Therefore
10 a loss of power to this channel will have no effect on the
11 operation of the ICS.

12 They do go on to say, however, if the assumption
13 is taken that a non-1-E bus is not available, then the ICS
14 failure mode is that all control devices will revert to
15 their 50 percent position.

16 That is basically the end of it. They make that
17 statement and then pretty much walk away from it.

18 Now, it seems to me that that answer goes right
19 into the heart of the concern that originally caused 7927
20 to be issued and certainly caused a heightening of the
21 concern for B&W plants as a result of the Crystal River
22 event. That is this idea of loss of indication, loss of
23 control, things happening and plant transients occurring as
24 a result of loss of power to various and sundry things.

25 That is why I was trying to get a feel for

1 exactly what was it that you looked at.

2 Did you look -- did you have the opportunity
3 really to look at these things in great detail and try to
4 look at things like this? Because obviously we have had
5 the benefit of being able to look at these in great detail
6 because we are not faced with 68 plants as you were. Or
7 did you feel that it was basically just an audit and you
8 were going to try and go through and find, did they make a
9 definitive statement that responded to each of the various
10 issues as raised in the original bulletin without really
11 having the time to go through and look at the bases in any
12 great detail?

13 A I would have to say that it was more than an
14 audit. It was to look to find if we could make the
15 statements that we made in our report and that we did try
16 to review all the items that they sent us. But it probably
17 was not a detailed investigation, technical investigation
18 of their complete response.

19 Q In retrospect or with the benefits of 20/20
20 hindsight, does that sound like an acceptable answer?

21 A I am not sure. I don't really have the
22 background in mind that much to appreciate the event right
23 now as well as I might have back then. I have to think
24 about that a little bit more. What they said and maybe --
25 it seems like it possibly could raise a question. But --

1 BY MR. EDISON:

2 Q Are you working with reactors right now, Phil?

3 A No.

4 Q How long have you been away from this?

5 A Since I left the agency.

6 Q Which was?

7 A 1982.

8 Q I see.

9 BY MR. BEARD:

10 Q You have been away about three years?

11 A Yes, a little over three years.

12 Q Before you were with the NRC, you were in the
13 intelligence field?

14 A Nuclear weapons systems.

15 BY MR. HEBDON:

16 Q Your background is in I&C though, or -- what is
17 your background?

18 A Electronics engineer, control systems, and I had
19 worked with nuclear weapon systems prior to coming to the
20 instrumentation and control and learned about nuclear power
21 plants after I had joined NRC and applied --

22 Q When did you join NRC?

23 A Well, I think it is probably around September or
24 October of 1980.

25 Q So you had been with the agency a fairly short

1 period of time when you reviewed this?

2 A Yes, a pretty short period of time when I was
3 doing this. So I would have to coordinate with what I am --
4 with the information as much as I could to try to satisfy
5 myself, if I had a question. With my boss, Tom Dunning, to
6 see if something would come to mind that didn't occur to me
7 to look into; investigate with people like Dick Wilson who
8 who had worked on this before, who had a lot of experience;
9 with other people in the branch, and other people in the
10 organization, J.T. and others, if there were questionable
11 areas, for anything we worked on. So --

12 BY MR. EDISON:

13 Q Do you remember what the working environment was
14 like at the time? I don't mean your office or the desk or
15 your particular comrades, but was it busy? Were you busy?
16 Was the staff busy? Were the licensees busy?

17 A Yes.

18 Q Were you in an overload condition or -- can you
19 recall the situation?

20 A I was fairly busy. I was working on a couple of
21 bulletins. This bulletin and 8006 bulletin and working
22 with independent contractor, the EG&G Company, who I had to
23 coordinate with on all these different things. And I also
24 was involved with review of the Byron Braidwood plant. And
25 I was also handling a relatively high visibility study on

1 electromagnetic pulse effects on nuclear power plant shutdown.
2 I would say I was pretty busy.

3 BY MR. BEARD:

4 Q How much time do you think, with these various
5 assignments, do you have any rough feel for how much time
6 of it you were able to put on this job? Was it like half
7 your time? A quarter of your time? 90 percent of your
8 time?

9 A Well, I think I was doing a lot of jobs at the
10 same time until I got to writing up the report here and had
11 everything finished. Then I think this was kind of a
12 sizable report and putting things together. That probably
13 was full-time when I was writing the report. But while I
14 was doing the work, it was mixed in with all the other jobs
15 probably. Probably 20 or 30 percent of my time was
16 involved with, when I get a response or something I have to
17 do related to this bulletin.

18 Q When you said you were coordinating with various
19 people, can you give me a flavor for what sort of an input
20 you got from a couple people in particular. Do you
21 remember any particular impression or flavor you got from
22 when you talked with Dick Wilson about it and, secondly,
23 particular type of input you got from talking to Tom
24 Dunning. How would you characterize them in general?

25 Obviously, we don't all remember the details but

1 can you remember the general flavors that you got from
2 talking to those two individuals?

3 A I recall that a lot of the items that kept these
4 things open were really items that were a completeness type
5 items where they didn't completely satisfy, say, Dick
6 Wilson, what he was doing, his interpretation of what they
7 should do. Instead of clarifying that, it was just left
8 open and this thing was left open for quite a while and
9 just piled up and piled up.

10 So I recall that from that standpoint there
11 wasn't a lot of good, solid, technical reasons many times
12 why these things were not either closed out or tried to be
13 more followed -- tried to be followed up further.

14 In the case of Tom Dunning, all the reports I
15 think he had to sign, and I would give him a copy of what I
16 had got in and my information that I was using to make the
17 conclusion, and ask for his advice or any comments. A lot
18 of times things got rewritten. He was quite a rewriter and
19 if he had anything that he wasn't satisfied with that I
20 hadn't thought of because he had a lot better idea of a lot
21 of the concerns that -- covering the scope of
22 instrumentation control that I wasn't familiar with, that I
23 would then investigate that and try to satisfy him before
24 he would, you know, could finish it.

25 So I thought he was a pretty careful person.

1 Q Let me ask you a little different question but
2 coming back to the concept of scope. Did anyone ever ask
3 you to review or expand the review that you were assigned
4 to cover additional items or to make sure that those
5 additional items were covered? In particular, I am
6 referring to items from a document called NUREG 0667 which
7 was an NRC report on transit sensitivity of B&W reactors
8 which contained a number of recommendations.

9 On loss of power, some instruments would fail
10 not to full down-scale or full up-scale but they would go
11 to a position in the middle of the scale. There was a
12 question as to whether that is a good thing to have happen
13 or not have happen.

14 A I don't recall that.

15 Q Okay.

16 A I don't recall that number either. The number
17 of the item.

18 Q The NUREG number?

19 A The NUREG number doesn't ring a bell.

20 BY MR. EDISON:

21 Q I would like to ask you a specific question:
22 Was there any pressure put on you by your management, your
23 line management, to close the bulletin response out? Get
24 this thing -- you know, it had been hanging around for a
25 couple years, close it out and to do a minimum review of

1 the responses so that this thing could be closed out and
2 put behind us?

3 A I don't recall the nature of the pressure, but I
4 do recall that being the general gist of the effort: to
5 try to clean it up, unless a specific concern was raised
6 that needed further investigation. But try to identify
7 whether or not they met the intent of the bulletin.

8 I don't recall any overt pressure. I mean,
9 other than it was clear -- I don't know if it was clear
10 but -- what is the right word for that? I think I got the
11 impression that NRC would like to clean up the bulletin,
12 you know, and get this behind us, unless there was some
13 significant reasons not to.

14 BY MR. HEBDON:

15 Q I had one other question. You mentioned that if
16 you found additional issues that required additional work,
17 that you would do some additional research on these.

18 Did this include contacting people, obtaining
19 additional information? What exactly was the nature of
20 that?

21 A Well, if there was -- I would have to go through
22 the status or comment section here to get a better idea,
23 but I recall there were a lot of items that were incomplete
24 that needed clarification, that I went directly to the
25 licensee and/or the I&E people to ask them to send me some

1 documentation or to clarify something or make a statement
2 and send us a letter saying that the interpretation that
3 was unclear was now understood to mean such and such, to
4 clarify whatever point was unclear and to put it in the
5 record.

6 I think from a completeness standpoint, we
7 wanted each file of each licensee to reflect that each item
8 had been looked at as thoroughly as we could in a short
9 time.

10 Q Was this generally technical information that
11 you were asking for or was this cases where the licensee
12 had not made a sufficiently definitive statement and so you
13 wanted them to make a more definitive statement on the
14 record?

15 A Both. I think it was a lot of it was
16 administrative-type things like you just described. But in
17 the case where there was deficiencies noted and they said,
18 we wanted to make sure we knew what deficiencies those were
19 and have a description of them and also the corrective
20 action. And that, I would look at a lot more closely, if a
21 deficiency was identified and they said they were taking
22 corrective action.

23 Q So the technical information you would ask for
24 would have been in cases where the licensee had identified
25 that there was a deficiency?

1 A In that case, for sure, yes. Unless there was
2 some other deficiency that we wanted them to address that
3 they hadn't addressed.

4 Q Did you find that it was very frequent that you
5 found deficiencies that the licensee had not noted and
6 brought those to the attention of the licensee?

7 A I don't believe so, because in most cases we
8 wouldn't have taken a detailed look at their valuation
9 report or drawing package to confirm their review, unless
10 we had some reason to doubt that they had done a thorough
11 job. Or had said something that we felt we needed to look
12 into further.

13 Q One thing, you know, of course the only package
14 we have looked at is the one that was submitted by Rancho
15 Seco. Approximately, physically how large were these
16 packages? Were they six, eight pages? 30, 40 pages? I
17 realize there is a broad distribution but on the average
18 about how large were most of the packages submitted by the
19 plants?

20 A I think they varied between short responses,
21 where somebody would say, they have looked at all these
22 subsystems and unequivocally said that they have studied it
23 and this is what they found. And other responses, where
24 they laid out in detail what they studied and what they
25 found, and listed all kinds of circuits and power buses and

1 everything with extra pages. But in effect said the same
2 thing as the short response.

3 In some cases, when we went back is if they
4 didn't say they had looked at all the buses, for instance,
5 and some other guys had given us a list of page after page
6 of things they had looked at, then we would be interested
7 to be sure that they had looked at all the same buses, if
8 there was a complete package.

9 And that, in those cases, we would, if we
10 weren't sure that they said all or something that said that
11 they looked at everything, then ask them to confirm that
12 they looked at all or identify which ones they didn't look
13 at and then look at all of them. But we wanted them to do
14 a thorough job and convince us that they had done a
15 thorough job.

16 Q But someone could use the shorter response as
17 long as they were very declarative and very definitive in
18 their statement that they had looked at all the buses and
19 they didn't see that there were any problems?

20 A That is right.

21 Q And that was an acceptable answer?

22 A It was.

23 BY MR. EDISON:

24 Q Did you spend a lot of time on the telephone
25 with the utilities during that six months?

1 MR. BEARD: Off the record for a minute.

2 (Discussion off the record.)

3 MR. HEBDON: Back on the record.

4 BY MR. EDISON:

5 Q Did you spend much time on the telephone during
6 the review period of those six months talking with
7 utilities and asking them questions about their status of
8 their response or, you know, that sort of thing?

9 A Because I was reviewing two responses at the
10 same time, 8006 and this one, I recall that I was on the
11 phone quite a bit to the utilities but I don't recall if it
12 was, to what percentage I spent on this one versus 8006.

13 Q Would that have been for a week, a couple weeks
14 or even months?

15 A That I was --

16 Q On the phone, making phone calls?

17 A A period of months, I guess. Because you have --
18 it was a very complicated procedure, as I found out,
19 between setting up times to contact them and working. Each
20 one of these calls was also always made with the licensee --

21 BY MR. HEBDON:

22 Q Project manager?

23 A Project manager, usually as a conference call.
24 Most of these were conference calls with him on the line to
25 confirm that we covered this material and in case they had

1 any questions or whatever. And to smooth the way.

2 BY MR. EDISON:

3 Q Let me ask you another question: From where you
4 sit now, three years later after you have left the NRC,
5 looking back, do you feel that this audit approach that we
6 used on the 7927 is a valid approach? Is that the right
7 approach or should we be doing 100 percent in detail review
8 of all those drawings and information submitted? Not only
9 on 7927 but on other bulletins and other information
10 requests we make to utilities and so forth. Is the audit --
11 does it work? Is it good enough? Do you feel looking back
12 that that was the right way to do it? Or do we need to go
13 into 100 percent review mode, an indepth kind of thing?

14 A I think we probably should have selected a few
15 plants and randomly done a very thorough review, just to
16 learn more about the way they do business with us and
17 respond and also as an educational process, since this was
18 an important event that we wanted to make sure everybody
19 understood carefully and --

20 Q What you are saying is that that kind of
21 detailed 100 percent review was not done on any of the
22 plants on Bulletin 7927?

23 A I don't believe so.

24 BY MR. HEBDON:

25 Q I guess I get the feeling a little bit that what

1 happened on 7927, please correct me if I am wrong, is that
2 the event came along and there was a lot of concern about
3 it initially and the bulletin went out and a considerable
4 amount of information was collected and then for whatever
5 reasons -- the TMI accident, the passage of time, the
6 changing of people or whatever -- the interest in this
7 particular subject waned rather badly and it finally got
8 down to the point of just, well, let's finish this thing up,
9 package it up, get it done and be done with it and go on to
10 other things.

11 Is that a fair representation of what happened?

12 A I wouldn't say that there wasn't interest in it
13 and that they wanted to get rid of it. I guess I would
14 just say that it did take quite a while and there was a lot
15 of frustration. Perhaps some people that, in terms of
16 resolving this bulletin and dealing with the issues, it
17 just comes to mind, a lot of times in talking to the
18 licensees, they are wondering what happened, you know, from
19 the time they sent their response in and how come nobody
20 ever gets back to them after such a long period of time to
21 either ask them questions or let them know what is
22 happening, and many of them were quite impressed that I had
23 taken the initiative to go over the responses with most of
24 them to either, you know, provide a completeness that they
25 essentially were looking for, to see that all the essential

1 items of the bulletin were looked at. And in cases where
2 there was some obvious problems or something that we
3 weren't clear about, to try to clear that up or to get them
4 to give a more detailed response.

5 MR. HEBDON: Okay. That is about all I have.

6 MR. EDISON: I am out of questions, Phil.

7 THE WITNESS: I probably would, if it would be
8 of any value to you, I would be glad to review, maybe even
9 off the record would be better, to review again their
10 response and some of the remarks you made about the
11 previous events and see if, upon reflection and thinking
12 about it a little more, if that gives me a --

13 MR. EDISON: We have staff here that can do that
14 now, if a further review is needed.

15 MR. HEBDON: Yes.

16 THE WITNESS: It sparks me to think of anything
17 else, you know, of why maybe that statement, if that -- you
18 are asking whether or not that, upon reflection, thinking
19 about that, if that, you know, why that maybe didn't alert
20 us to take some different actions. I can't really recall
21 in reading that, you know, that that didn't raise a concern
22 or, if it did, that I feel we clarified it in talking to
23 them.

24 BY MR. HEBDON:

25 Q Do you recall if you did call Rancho Seco?

1 A No, I don't recall. Well, I must have, I did
2 look and say the I&E follow-up performed. I stated that as
3 if I made sure that it was performed.

4 Q What are you referring to?

5 A I made a comment in the review status, one of
6 the open items was they didn't know if I&E had done such
7 and such. I said it was performed.

8 MR. EDISON: The region did publish a memo or
9 two with a paragraph or two in it stating they had followed
10 up on certain items. So it may be that you got it from
11 that or from the project manager and got the information
12 that way.

13 MR. HEBDON: There are two inspection reports
14 that address this particular issue.

15 THE WITNESS: I don't recall if perhaps I --
16 there may have been a report. A lot of reports that came
17 in weren't forwarded to us and then in coordinating with
18 I&E, we found out they actually had these reports when some
19 of the I&E inspections were done. So that closed the
20 matter of whether or not I&E had to perform that inspection.
21 At the point of the initial investigation, those were some
22 of the items that were open that we didn't know if I&E had
23 done anything. And, yet, the documentation had already, in
24 some cases, come in and said they had done something and --
25 but the net effect was, that was one of the reasons this

1 was an open item, because it wasn't coordinated to our group.

2 MR. EDISON: No further questions.

3 MR. HEBDON: I think that is all I have. Do you
4 have anything else relevant to this particular subject?

5 MR. EDISON: Any tapes?

6 THE WITNESS: The only thing I recall, looking
7 at this a little while ago, was wondering about the Rancho
8 Seco response and it occurred to me that one of the open
9 items for them would have been the Crystal River response
10 that hadn't come in yet. And so they should have followed
11 that up with an appropriate response that we reviewed and
12 found acceptable for us to say that that portion of the
13 response was acceptable.

14 MR. HEBDON: I think they did submit a response
15 to Crystal River.

16 THE WITNESS: Yes.

17 BY MR. HEBDON:

18 Q That would have been available to you, wouldn't
19 it?

20 A Yes, sure. I would think so.

21 Let me ask you, did you people look at the 7927
22 package that is on file for this, for Rancho Seco? Because
23 each one should have had a separate folder of all relevant
24 information. Would that be part of your review?

25 MR. HEBDON: I think we have reviewed all the

1 pieces. I don't know if we reviewed the folder per se.
2 Where would that folder be held?

3 THE WITNESS: It should be in the
4 instrumentation and control systems branch.

5 MR. EDISON: It is certainly on the docket.

6 THE WITNESS: It should be, but not everything
7 came in together. As I was pointing out, some things,
8 through coordination, were put together to make a complete
9 package. But if some independent person was just looking
10 into this event, say through the docket approach, it may
11 not be as complete. I would say the folder would represent
12 all of the relevant information for this bulletin.

13 MR. HEBDON: Well, we will have to check on that
14 and make sure we have all the pieces.

15 Anything else?

16 THE WITNESS: Just thinking, that folder would
17 probably identify people talked to, phone numbers.

18 MR. HEBDON: That is what I was thinking, too.

19 THE WITNESS: Things like that. What notes on
20 what they said, you know. More informal stuff that went into
21 each of these reviews. That is about all.

22 MR. HEBDON: Okay. Fine. Thank you. Anything
23 else? That concludes the interview then. Thank you.

24 (Whereupon, at 3:55 p.m., the interview was
25 concluded.)

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: INTERVIEW OF PHILIP BENDER

DOCKET NO.:

PLACE: BETHESDA, MARYLAND

DATE: THURSDAY, JANUARY 16, 1986

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission.

(sig) Rebecca E. Eyster
(TYPED)
REBECCA E. EYSTER

Official Reporter
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