

1 MR. MURPHY: It's now 1:55 and we're
2 back on the record. Mr. Robinson.

3 BY MR. ROBINSON:

4 Q. Regarding the information that was
5 supplied by the line people doing the
6 technical responses after the Lundin effort,
7 did you assume that because of the tests that
8 Lundin gave that information earlier, that it
9 was fair to assume that the information coming
10 in after that would all have been fairly valid
11 and accurate, too?

12 A. Yes, but there wasn't any great
13 substantial changes made. There were a few
14 additions by NSRS, but most of the additional
15 effort that was done was to complete the
16 research, look at additional pieces or where
17 there was an incomplete thought in the line
18 treatment, to make them go and complete it, so
19 that there were no loose ends.

20 Now, in addition to that,
21 immediately after the letter was sent, I
22 directed them all to compile a full set of
23 everything that was used and what I was
24 looking for was 11 books that would be
25 available to the NRC inspector. I expected

172

1 one within days, but it didn't happen right
2 away. Those 11 books ended up in this stack
3 of eight feet of paper that ultimately the NRC
4 asked for and was sent to them.

5 So we did prepare for somebody to
6 come in and pour through it and look at it and
7 be able to repeat the process that we went
8 through.

9 Q. Did Bill Wegner play any part in review
10 of the technical responses?

11 A. Not that I recall, other than he sat
12 through some parts of the discussions about
13 the material that we were looking at, but I
14 don't think he looked at any of the supporting
15 material.

16 Q. Do you recall him making any changes to
17 the drafts of the final technical responses?

18 A. Not specifically, but I wouldn't be at
19 all surprised if he didn't ask or identify
20 things that were incomplete in them. Those --
21 a lot of people read those to see if they left
22 questions unanswered, and he could have done
23 that, I don't know.

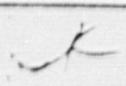
24 Q. Who was responsible for reviewing the
25 final set of technical responses that was

1 going to be included under the March 20th
2 cover letter?

3 A. There really wasn't any one person
4 outside of maybe somebody in Licensing to make
5 sure that everything got picked up in it. I
6 read them several times along the way. I
7 don't know that I read the ultimate final
8 set. I think Lundin read several of them
9 along the way, you know, as they progressed,
10 he reviewed them a number of times. The
11 licensing people went over them, and Mullin
12 and a couple of other QA people in the
13 organization went over them, Tom Burdette went
14 over some of them.

15 Q. At the time of the final meeting for
16 concurrence of the letter, the cover letter
17 and the attachments, you said, I believe, that
18 Mr. White went over each of the attachments in
19 detail. Did he ask for any verbal input from
20 anyone there at the meeting as to their
21 satisfaction that all of those technical
22 responses were accurate and complete?

23 A. I don't recall that at the final
24 meeting. He did that as sort of a continuing
25 process as he went through and familiarized



1 himself with each of those issues.

2 Q. Just to switch gears a little bit, to
3 your knowledge, was Mr. White's first contact
4 with Stone & Webster this TVA project?

5 A. Best of my knowledge, with the company,
6 yes. With some of the individuals within
7 Stone & Webster, he went back to the early
8 days of the Navy with some of the people.

9 Q. I notice that you said that when he
10 assigned you the job as QA man, he didn't ask
11 if you wanted it and didn't do any extensive
12 interview. Did you have a personal
13 association with Mr. White prior to the TVA
14 project?

15 A. None at all. I had never met him
16 before.

17 Q. Why did you think that he didn't require
18 any interview and just nominated you without
19 even asking whether you wanted to take the job
20 or not?

21 A. Probably because I was the only one who
22 took on all of his Navy buddies at that
23 dinner, individually and collectively. Most
24 people leave -- they were all talking war
25 stories and I was not a Navy man, and so I

1 made them pay, as is --

2 Q. Oh, I see, okay.

3 A. So he thought that was a fresh outlook
4 and also that I might be perceptive.

5 Q. When you and Jim Houston hand-delivered
6 the final version of the letter to Hethesda --

7 A. It wasn't Jim Houston.

8 Q. Oh, excuse me, you and --

9 A. Kirkebo.

10 Q. And John Kirkebo, were there any changes
11 to the cover letter prior to your handing it
12 over?

13 A. Yes.

14 Q. And what was the substance of those
15 changes?

16 A. I haven't got the foggiest notion.
17 There was a change made in a word or two on
18 the cover sheet between the time I left the
19 office on Thursday evening and arrived in
20 Washington. As a matter of fact, I took an
21 early flight from Chattanooga via Charlotte to
22 Washington, and I was paged in Charlotte by
23 ~~Budd~~^{Steve} White, and he said there was a change,
24 and he told me what it was, and it was -- the
25 front page was being retyped and somebody

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1 would meet me with the revised front page when
2 I got to Washington; and when I got there,
3 John Kirkebo had already met the person and
4 had the revised front page and I made the
5 switch in the front page in the NRC office in
6 Bethesda, using ~~our~~ ^{his} staples.

7 Q. You don't remember the nature of the list
8 change? Was it inconsequential or --

9 A. It was a word --

10 Q. Grammatical?

11 A. It was a word or two. It wasn't
12 grammatical, it was a word or two, and I
13 really don't remember what it was
14 specifically, but it was, in my estimation, it
15 was not even worthy of changing the letter
16 for.

17 MR. REINHART: So it wasn't a
18 substantive change, you would say.

19 THE WITNESS: No.

20 MR. ROBINSON: I don't have any
21 further questions.

22 MR. MURPHY: I just got a couple
23 follow-up questions.

24 BY MR. MURPHY:

25 Q. I guess I'm going back to the systematic

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1 analysis identified, you know, by Mr. Kirkebo
2 and his staff, and I guess in talking with
3 some folks, there are some people who I
4 guess, maybe proud of the type of work done
5 here, and my question is, if I read what --
6 we've listened to what you said was the basis
7 for this, and I've been looking this thing
8 over, and it says, and I'm reading -- this is
9 Page 3 of the systematic analysis identified
10 issues/concerns. This is background.

11 In a meeting with the NRC
12 commissioners on January 9th, 1986, TVA
13 directors committed to a review and evaluation
14 of previously identified issues/concerns as a
15 means of assessing the current situation as
16 well as identifying certain root causes of the
17 problems. Okay? To meet this commitment, a
18 systematic analysis of identified
19 issues/concerns was performed. The objectives
20 of the analysis was to accumulate issues and
21 concerns from sources external to TVA, encode
22 these into a data base, and analyze the
23 resultant information, determine if root
24 causes where possible and support the
25 preparation of a report to NRC outlining the

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1 TVA Recovery Plan, which you said was what
2 this was going to be used for. What was your
3 problem with this? You said that there's no
4 validation? Is that --

5 MR. MESERVE: Do you want to look at
6 that?

7 A. I don't have any problem with it being
8 used for that purpose, that is, to support the
9 preparation of the TVA Nuclear Recovery
10 Program. But I do have a problem with
11 somebody picking this up as an authoritative
12 treatment of what is actually wrong, because
13 we didn't make any judgment as to the validity
14 of any individual issues.

15 Q. Let me point out one thing, maybe you
16 can -- maybe I'm confused. Could you read the
17 description of the process from that same
18 thing, what were the --

19 A. Description of process. The analysis
20 process was divided into two phases, data
21 review and input was the first phase. Data
22 independent validation was the second phase.
23 Is that where you wanted me to stop?

24 Q. Yes, that's fine. I mean, let me ask
25 you something about the credentials of these

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1 folks doing this study, you mentioned that you
2 were personally knowledgeable of these
3 individuals?

4 A. Yes.

5 Q. Did they have good credentials?

6 A. Yes.

7 Q. In a wide variance of disciplines?

8 A. In general disciplines, because they
9 weren't sorted into specifics like civil or
10 electrical, they were knowledgeable about the
11 general enforcement process.

12 Q. Would you classify these people, in your
13 opinion, as good people, knowledgeable folks
14 about the areas that their discipline
15 encompassed?

16 A. Yes.

17 Q. You don't have any problem with their
18 credentials?

19 A. No, but I might discuss what that
20 statement means. Let me go back to the second
21 part of that.

22 Q. Sure. I was going to go back to it if
23 you weren't so --

24 A. Data validation?

25 Q. Yes.

1 A. That's a validation of the computer
2 input process, not a validation as to whether
3 the issue being input is valid, only if it was
4 carried into the computer data base properly.

5 Q. Now, we've had this described to us by
6 several other people, and I'm going to tell
7 you what they kind of said and you tell me if
8 this is wrong.

9 Q. They said they sat down with this group
10 of experts, right? I mean very knowledgeable
11 people about their particular areas, right?
12 And no one so far has questioned their
13 capabilities, right? And they evaluated X
14 number of documents.

15 A. Right.

16 Q. 800, okay? After the evaluation, they
17 encoded the stuff into a data base and put it
18 into a computer, put it aside. Okay?

19 Then they sat down and divided
20 themselves up into groups, three separate
21 groups. And they said, let us sit down, based
22 on what we've been able to review, 800
23 documents, and see if we can identify what the
24 major problems, major concerns in TVA are.
25 They sat down independently, three different

1 groups, come up with a list of, someone told
2 us it was the top ten whatever you want to
3 call it, top ten.

4 When they did this, they got
5 together as a whole group and quickly realized
6 that they had no problem in coming to a
7 consensus on what their top ten were. There
8 was a high degree of agreement on what they
9 viewed as problems in TVA.

10 In talking with other folks, I mean
11 I realize you have an opinion and they have an
12 opinion, I'm not so sure they didn't think
13 that these were valid concerns, I mean, valid
14 to the point where they were going to, as I
15 understand, take some action, develop a
16 program based on what they perceived to be the
17 real problems in TVA, is that correct? Are
18 they off base? Am I off base?

19 A. No, neither one, they or you are off
20 base, except in recognizing the limits of what
21 they had to deal with. They reached a
22 consensus of the top ten problems,
23 independent, three groups, and collectively,
24 they had some changes when they got together
25 collectively.

1 What they reached a conclusion on
2 was a reflection of what basically NRC had
3 written into the record. They did not form an
4 opinion based on any independent observation,
5 any firsthand direct knowledge of what was
6 transpiring in TVA.

7 In other words, they were looking at
8 a record produced by other people, with
9 reasonably good credentials, admittedly, but
10 with one side of the story, and they formed an
11 opinion, and to the extent that all the data
12 is valid, that opinion is valid.

13 So if you argue with individual
14 findings, a specific inspection report may not
15 be complete or may have represented something
16 wrong, it becomes irrelevant in the process of
17 determining the areas needing attention. So
18 for that purpose, it's valid, because the
19 nuances, the windage in the thing would wash
20 out, and it wasn't trying to pick the only
21 target. We were going to work on picking the
22 big problems. So for that purpose, it's
23 valid.

24 But to say that it accurately
25 reflects what the situation within TVA is or

1 contains a ranking of the problems which is
2 accurate, misrepresents the facts. The limits
3 of the available information were stretched to
4 write that report.

5 Q. I mean, I don't know that's really worth
6 arguing about. I think you may have
7 difference of opinions from the office of the
8 report but that's --

9 A. That's why most of the people did that
10 work for me and not me for them.

11 Q. So you don't -- would you call this an
12 in-depth review?

13 A. I would call that an in-depth review of
14 the available documentation. I would not call
15 it a thorough analysis of the TVA problems,
16 because for that, I would need field work, I
17 would need more information than I would
18 extract from the NRC reports.

19 For an example, the NRC reports deal
20 with safety related material only. Now,
21 that's significant to the NRC, but I could
22 have a secondary problem, a very significant
23 problem in the secondary side of a P.W.R. That
24 is of vital concern to the NRC but not part of
25 their inspection program, but is of vital

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1 concern to me as a TVA person. So all of that
2 kind of data was -- is not in the analysis.

3 I may have had training difficulties
4 that existed in other areas that were very
5 significant to the well-being of the entire
6 program, but they would have skipped through
7 this process.

8 Q. I guess I only have one question. If
9 there's question of the validity of these
10 concerns, right? Why in the world would TVA
11 then want to use this as a primary basis, and
12 I think they did, for nuclear performance
13 plan? I mean, if this is what we've
14 determined to be the major problems, but yet
15 they're not valid, why are we going to
16 approach them as such?

17 A. What I tried to explain to you a minute
18 ago is that nuances or windage, the subtleties
19 of it are irrelevant to the total process.
20 They highlighted the principal areas which
21 required work, and the entire TVA operation
22 was addressed in those areas. The
23 reorganization didn't limit itself to safety
24 related activities only.

25 And it's also important to recognize

It

1 that the NRC formed its opinions and other
2 interested parties formed their opinions based
3 on the same record we were looking at there.

4 Q. I need a clarification there. Are you
5 saying that when INPO did their study and when
6 NRC inspectors come out and do their reviews,
7 that it's merely a records check?

8 A. No, no, I'm saying that the NRC
9 management thoughts are based on the
10 information developed by the inspection
11 process. It's not -- I'm not saying the
12 inspection process is based on a records check
13 only. I'm saying that the record is -- the
14 inspection reports --

15 Q. I understand that.

16 A. So the NRC creates its perceptions based
17 on the work by all the field inspectors and by
18 specialists that they send in. Therefore,
19 it's valid to address the NRC concerns based
20 on what the NRC's concerns are based on.

21 Q. I think you've lost me. Just correct me
22 if I'm wrong. We do this study, and the basis
23 for our study is certain reports filed by
24 external agencies, NRC, INPO, MAC, whoever
25 does these impartial studies, and there's been

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1 a bunch of them

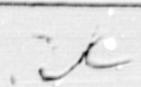
2 Now, we say that there's a question
3 in your mind, correct me if I'm wrong, about
4 the validity of this because it's a records --
5 we're doing a records review. But as I view
6 it, you're doing a records review of some
7 hands-on work performed by INPO, performed by
8 NRC, performed by MAC, whoever, right? I
9 mean, these records reflect -- are not just
10 some record generated from another record,
11 they're generated from some hands-on work, is
12 that correct? I mean, am I --

13 A. That's right.

14 Q. So when we -- then why would we not
15 place some validity on that?

16 A. I guess I'm caught up in using two
17 different parts of my thought process
18 together. One is, I said it's a valid process
19 for focusing the recovery program, the
20 adjustments in the TVA nuclear programs. It's
21 valid for that purpose.

22 It's invalid to take it as a
23 representation of the significance or extent
24 of the problems described in it, because we
25 didn't test each problem for its significance



1 or its extent or its validity. It's secondary
2 work. It's analysis of somebody else's
3 primary work.

4 So we're not introducing new
5 information into the process, we're only
6 taking available information, trying to
7 assemble it in a manner that we can utilize
8 it.

9 Q. And in the process, what are you doing?
10 Are you not identifying problems?

11 A. Not new problems.

12 Q. Problems, whether they're new, I mean,
13 the basis for the study was also to deal with
14 current problems.

15 A. One of the things we had a difficulty in
16 doing this process was taking NRC documents
17 that identified a problem and then another NRC
18 document that analyzed that problem, and we
19 had to try and screen those out, because we
20 were getting, for every one problem we got, we
21 had two hits. We had two entries. We
22 couldn't live with that.

23 I'm not finding fault with the
24 source of the data or the data, itself, we
25 used. I'm just saying it has limitations and

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1 we shouldn't try to portray it as something it
2 is not.

3 Q. Oh, I wouldn't think that either. I'm
4 just wondering if that doesn't, in fact, based
5 on the study, itself, identify a series of
6 problems that exist in TVA.

7 A. I haven't reread that for a year, but
8 after having been down there for a year, and
9 looked at a lot more parts of the program and
10 talked to lots of people, I might or might not
11 agree with that. I probably would agree with
12 most of it, but we didn't have the luxury of
13 being able to take a year to reach a
14 conclusion, we had to do it very quickly.

15 Q. I understand that.

16 A. That was an useful tool for that
17 purpose.

18 Q. So we're saying this identified some
19 problems, but it's not something that we
20 should get concerned about if we're not
21 responding to the Appendix B letter even
22 though --

23 A. It was unrelated. It was done for a
24 different purpose.

25 Q. I understand that.

1 A. It miscast to be used in association
2 with Appendix B.

3 Q. In talking with other people, I'm not so
4 sure that Mr. Lundin's report was intended to
5 be used as the basis of an independent study,
6 either.

7 A. No, but it was much more closely focused
8 at the Appendix B letter than that was.

9 Q. Let me go over the top ten. I'm sure you
10 have already, and you tell me which one of
11 these does not fall in directly into a Quality
12 Assurance Program.

13 Lack of management, direction,
14 control, involvement and program monitoring,
15 that was your number one. Does that somehow
16 relate to Appendix B?

17 A. Do you want an answer to the
18 individual --

19 Q. Yes, please.

20 A. I'd like to read them for myself.

21 Q. Sure, if you'll read them for the Court
22 Reporter and as you go over them, tell me
23 which ones do not apply to Appendix B?

24 A. First, lack of management, direction,
25 control, involvement and program monitoring.

122

1 That has QA ramifications, has a lot broader
2 ramifications than just QA.

3 Q. I understand that.

4 A. It may or may not have represented a
5 breakdown or some concern.

6 Q. I'm not asking whether it represents a
7 breakdown.

8 A. Second one is lack of quality assurance,
9 overview and basic program weakness.

10 Q. Can we somehow fit that into Appendix
11 B?

12 A. I think that's one that, after a year, I
13 would disagree with.

14 Q. Okay.

15 A. We did find some weaknesses, but I think
16 as a generalization, that's not totally
17 correct.

18 Q. You don't have a problem with corrective
19 action at TVA, is that what I'm --

20 A. No, I didn't say that, did I?

21 Q. Well, you said you disagree with that
22 comment.

23 A. Lack of quality assurance, overview and
24 basic program weakness. Third, inadequacy of
25 problem --

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1 MR. REINHART: Before we go on, in
2 general, would that, whether it's true or not,
3 would that category fit into or address QA
4 program? Subjectively?

5 THE WITNESS: Try asking that
6 question again, because I'm having difficulty
7 trying to find out what your question is.

8 MR. REINHART: I believe Mr. Murphy
9 asked the top ten, does each one somehow or
10 somewhat relate to one of the 10 CFR 50,
11 Appendix B criteria?

12 A. Without reading any of the rest of them,
13 I would say that they all do, because 10 CFR
14 50, Appendix B is a set of management
15 guidelines, and I would guess all of these
16 have some dealing with management, and if they
17 don't, maybe we can calibrate on those
18 individuals but --

19 BY MR. MURPHY:

20 Q. I don't want you to do that. I read
21 them, I guess, a bunch of times, and I'm
22 certainly no Appendix B expert, but the reason
23 why I would like to go over them is that it
24 seems to me like, in my limited knowledge of
25 Appendix B, that these not only -- don't have

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1 to stuff them in, we don't have to find some
2 related area, it seems to me that they
3 directly apply to Appendix B, but if they
4 don't, I would like you to tell me that. I
5 mean, I don't -- this is your field of
6 expertise, and surely not mine. But if
7 there's one in the top ten that don't apply to
8 Appendix B, I'd like you to tell me that.

9 A. I'll continue.

10 Q. Please do.

11 A. Inadequacy of problem evaluation and
12 corrective actions. Do you want me to read
13 the parentheticals and all --

14 Q. Sure -- no, it's not important.

15 A. That's the item. That certainly has
16 ramifications in Appendix B activities.

17 Q. Okay.

18 A. Four, lack of timeliness and/or
19 responsiveness to identified problems. That
20 certainly involves Appendix B.

21 Five, unclear or fragmented
22 management responsibilities and authority. I
23 couldn't say whether that has any
24 ramifications or connection with Appendix B.

25 Six, procedure noncompliance and

1 poor attitude toward requirements, quality and
2 compliance. That certainly involves Appendix
3 B issues.

4 Seven, inadequacy of preventive
5 action and failure to identify root causes of
6 problems. That involves Appendix B, or
7 could.

8 Eight, procedure inadequacy.
9 Potentially involves Appendix B activities.

10 Nine, training program
11 ineffectiveness. Could involve Appendix B.

12 Ten, lack of communications and
13 feedback, including plant/plant interfaces.
14 Not really Appendix B, it falls under other
15 regulations, like Part 21.

16 Q. That's enough. That's what they
17 classified as the top ten.

18 As you went over these, eight of the
19 ten areas had some Appendix B --

20 A. Connotations.

21 Q. -- connotations. Why would a person not
22 utilize this document, the results of this
23 review, if you were considering whether you
24 had an Appendix B problem or not? I'm not
25 saying it wasn't. I'm merely asking.

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1 A. It wasn't, I can tell you it wasn't.

2 Q. Okay, it wasn't.

3 A. It wasn't. And why would they not?

4 Q. Yes, sir.

5 A. I come back to the thing, I did not
6 endorse that report, issuing that report, or
7 representing it for anything other than input
8 to a series of planned corrective actions.

9 Q. That --

10 A. All of those problems may have been
11 fixed prior to Steve White showing up on the
12 scene. If the NRC was diligent in carrying
13 out its duties, all of them would have been
14 fixed, because that's how they do business.
15 So you could presume that each individual
16 problem had been resolved, accepted by the NRC
17 and there was no remaining residual issue on
18 any individual item that fed into the creation
19 of that data base.

20 Q. Except that you have clearly stated for
21 the record that there were a lot of problems
22 at TVA, when you arrived on the scene that had
23 not been fixed, is that --

24 A. That had not been completely resolved.

25 Q. Resolved. So --

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1 A. Some had not even been fully defined,
2 but the definition process was in progress.

3 Q. Any of those problems that you've
4 discovered since your arrival at TVA fallen in
5 the category of the concerns identified by the
6 analysis, here?

7 A. Some, certainly. Most of those were
8 fixed early on.

9 Q. Early on; by early on, after your
10 arrival?

11 A. After White's arrival.

12 Q. Okay. Let me go on. So, now, we've
13 asked you about whether you thought the Lundin
14 report was an in-depth review, and I think
15 your response was no, that it was more of a
16 cursory review, is this correct?

17 A. Yes.

18 Q. But yet some degree of credence was
19 placed on that report.

20 A. Yes.

21 Q. Why the difference? I guess I don't
22 understand why we get a report done here, I
23 guess probably on February 14th, Lundin report
24 was done sometime in February, why do we place
25 so much credence on a cursory review, as

1 opposed to that, what's the difference?

2 A. The difference is the process that was
3 done, and the information that was examined in
4 each. As I said, the Lundin report tested the
5 actual occurrences in the field and the actual
6 corrective actions that were planned or in
7 place, but didn't limit itself to only taking
8 the NSRS reports and analyzing those and
9 reaching a conclusion. It extended into what
10 is actually going on.

11 And in the case where it found that
12 the NSRS perception was based in fact, that
13 there were deficiencies in an activity, it
14 tested whether the TVA response was aimed at
15 resolving that completely and thoroughly. So
16 we looked at the entire process, not just
17 whether the NSRS perceptions stated
18 something.

19 The Kirkebo report looked only at
20 the reporting of problems, not whether the
21 effort identified each problem as isolated or
22 as incorrectly interpreted or perhaps
23 extensive. We didn't look to see whether that
24 was the case.

25 Q. Let me ask you -- okay. Could you,

1 from -- could you, based on the Lundin review,
2 study, whatever you want to call it, did you
3 determine, did that study give you enough
4 information to say we are in compliance with
5 Appendix B?

6 A. Generally, yes. Generally is the word I
7 add. We are generally in compliance with
8 Appendix B.

9 Q. And you think it was sufficient enough
10 to arrive at that conclusion? I mean, just
11 cursory --

12 A. Sufficient? No, it led me to do a
13 couple of things; one, to have some confidence
14 that the information I was getting was
15 reasonable; second, to say that we need to
16 look further in the field, and look much more
17 extensively. And so we did.

18 That first group of six people came
19 in and spent a week looking at 11 specific
20 issues, and subsequent to that, there were a
21 number of other people brought in. As a
22 matter of fact, I made it a condition of
23 accepting the position as Director of QA that
24 I have access to 36 people of my choosing to
25 look at a lot more of what was going on in the

1 field.

2 Q. Let me ask you one more. Do you know --
3 you said that Lundin study did identify some
4 problem areas.

5 A. Some weaknesses.

6 Q. Weaknesses. Were any of those
7 weaknesses the same weaknesses that were
8 identified in the analysis assessment?

9 A. It would not have related. There was no
10 way of comparing one to the other. The Lundin
11 effort, for instance, looked at weld rod
12 controls. One of the items in the NRC report
13 probably was weld rod -- I mean, I would have
14 guessed there's been at least one violation.
15 So they looked at the same area. But the
16 conclusions drawn in the Kirkebo document
17 aimed not at the control of the weld rod, but
18 at why there was an NRC concern in that area.

19 The Lundin effort focused on, was
20 weld rod being controlled? And if the
21 procedures were loose, what the actual
22 practice was. Was it getting the right wire
23 in the right place? So even if procedures
24 were somewhat inadequate, the Lundin effort
25 focused on what was the end result.

1 Q. Do you see any relationship between the
2 items in the Kirkebo report, as you called it,
3 or Nace report and NSRS' perceptions?

4 A. There's a couple of them that are the
5 same.

6 Q. I'm going to ask you just kind of --

7 MR. MESSERVE: May I just ask, the
8 Kirkebo Nace report related to all of the
9 plants in the all nuclear program, whereas the
10 Lundin was Watts Bar only?

11 THE WITNESS: Watts Bar 11 issues
12 only.

13 BY MR. MURPHY:

14 Q. Obviously, you haven't read this thing
15 in a long time, but do you know what
16 percentage of the documents pertained to Watts
17 Bar, by chance?

18 A. No, I don't have any recollection.

19 Q. Would you be surprised if I told you
20 over 30 percent applied to Watts Bar?

21 A. No, I would have expected, if I had to
22 guess, I guess at numbers like 40 percent
23 Watts Bar, 40 percent -- no, 30 -- 30
24 Sequoyah, 30 Browns Ferry and a very few
25 insignificant at Belefonte, and I would expect

1 that based on the status of the program.

2 Q. You dealt with Mr. White, obviously, and
3 Mr. Wegner and their staff. You consider them
4 to be highly attuned to what the requirements
5 of Appendix B are, knowledgeable about
6 Appendix B requirements. Will you
7 characterize what you consider their ability
8 to understand Appendix B?

9 A. Let's talk about Mr. White, first, all
10 right?

11 Q. Sure.

12 A. Mr. White has a long and distinguished
13 career associated with the Navy nuclear
14 program, dealing primarily with operations,
15 but having at least some knowledge of the
16 design and construction process, probably
17 reasonably minimal.

18 Appendix B does not exist, as far as
19 the Navy nuclear program goes. They've never
20 heard of it, know what it is. They use
21 mil Q 9858 A, and I believe the other number
22 is mil standard 48 -- a number like that.
23 Those are the QA or inspection programs
24 associated with nuclear power.

25 He understood those kinds of

JK

1 requirements.

2 Appendix B was derived basically off
3 those same requirements, the military
4 standards for QA and inspection. So when he
5 first got involved in the TVA program, he had
6 minimal knowledge about the specific wording
7 of Appendix B. But he understood the
8 principles from past associations.

9 I think I gave him a copy of
10 Appendix B in November or December, which is
11 the first time that he had had in his
12 possession the exact wording.

13 During the first month or so at TVA,
14 we gave him extensive indoctrination as to
15 what Appendix B meant, how it was derived, and
16 what it was used for. So he, by now, probably
17 in March, he had a reasonably thorough
18 understanding of what Appendix B was. He
19 certainly hadn't achieved 50 years of
20 experience with it, but he understood it.

21 Bill Wegner and the other advisors
22 had varying degrees of association with
23 Appendix B, some extensive.

24 The RETA organization had been
25 working in commercial nuclear programs since

1 '79 or '80, and they had reasonable
2 understandings of Appendix B, similar to some
3 of the other people involved like Siskin and
4 Sullivan.

5 Q. You think Mr. White relied a great deal
6 upon your advice for his conclusions about
7 Appendix B?

8 A. I think probably that was true.

9 Q. I mean more so than, say, Mr. Wegner or
10 Mr. Brodsky or any other individuals he
11 associated with?

12 A. I think you ought to ask him that
13 question. I don't know the answer. He
14 certainly consulted with me, but he also
15 consulted with other people.

16 Q. You said that after your arrival here --
17 well, not here, but at TVA, that you have seen
18 problems, but you've seen these at other
19 plants around the country. Have you ever seen
20 as many problems associated with other plants
21 as you have with TVA all in one location?

22 A. Yes.

23 Q. Where is that at?

24 A. A couple of plants defined in your
25 terminology as problem plants. I'm talking

ick

1 Watts Bar, specifically, Zimmer, Comanche
2 Peak, early days of South Texas. There are a
3 number of other plants that had similar
4 problems.

5 Q. But to the degree that they existed at
6 TVA Watts Bar, to that degree?

7 A. I'd have to say very close, yes. I
8 didn't find one problem, by the way, at TVA
9 that I had not seen somewhere else in the
10 industry. Every single problem that TVA has,
11 has also occurred at other places and been
12 resolved in other places.

13 Q. And I was just curious --

14 A. Usually a lot quicker, though.

15 Q. I was just curious, why is that, by the
16 way? Why has it taken so long to resolve the
17 problems at TVA? If you have an opinion.

18 A. That's a conclusion you're drawing that
19 it's taking so long.

20 Q. You suggested that, I believe. I don't
21 think it was my conclusion. Maybe I'm wrong,
22 but did you not just say something about it
23 taking so long? Maybe my hearing is going on
24 me. At my age, it can happen.

25 A. Let me define too long, then. Longer.

1 than I would like. That plant is not
2 operating, has never operated, and if they
3 could solve their problems quicker, they could
4 go into operation quicker.

5 Q. Is there any particular reason for this?

6 A. Obviously, until Mr. White showed up,
7 there was some difficulty in bringing the
8 necessary resources to bear to solve the
9 problems.

10 MR. MURPHY: I don't have any other
11 questions.

12 BY MR. NORTON:

13 Q. Mr. Kelly did you ever make or hear any
14 comment to the effect that in this letter to
15 the NRC, TVA would come as close as possible
16 to saying that they were not in compliance
17 with Watts Bar as -- without actually saying
18 so?

19 A. No, never had any discussion with me.

20 Q. I note on the second page --

21 A. And by the way, I would not -- I would
22 not have accepted that, you know, if I was
23 requested to sign off on that, ⁵²~~111~~
24 participate in the preparation, I wouldn't
25 tolerate that.

Ed

Kelly

1 Q. I note on the second page of the June
2 5th, 1986 letter from Mr. White to Mr. Denton
3 that Mr. White states that, As a result of our
4 review conducted in the QA area so far,
5 independent of the NSRS concerns, numerous
6 actions have been taken which have resulted in
7 the addition of more than 300 engineers and
8 quality assurance personnel. This number is
9 expected to increase drastically over the next
10 three months, as the various organizational
11 and programmatic efforts continue to be
12 implemented.

13 That comment would lead me to
14 believe that extensive problems had been found
15 in the QA area. Do you see where I'm reading
16 from?

17 A. Yes, I see it, I see it.

18 Q. That comment would lead me to believe
19 that evidently extensive problems were found
20 in the QA area, is that a correct assumption?

21 A. You can make that assumption. I wasn't
22 making that assumption.

23 Q. Is that accurate?

24 A. And I wouldn't necessarily make that
25 assumption in reading this, because I know

1 what the people we brought in were doing.

2 There was a significant review
3 effort, welding task force review, which
4 consumed lots and lots of people, employee
5 concern program review. We had some 1700
6 safety related concerns, many of which had
7 ramifications -- impact on all the
8 organizations. Plus we were strengthening the
9 organization and at this point, we had
10 reorganized, and I had started a revision of
11 the QA program. I had started revisions of
12 the procedural system, because, as I said, I
13 reorganized, and the units of QA that fitted
14 into construction, engineering, operations,
15 nuclear fuel and a dozen other places had been
16 brought together, so the procedural system did
17 not reflect the unitized organization or what
18 had to be done.

19 Engineering had made adjustments.
20 There were a lot of things that had to be
21 done. Plus there were a lot of reviews of the
22 problems that were being -- had already been
23 identified, that had to be scoped to fully
24 resolve them.

25 We also had to take and look for

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1 problems at the other plants that had already
2 been identified at a single plant. And we had
3 an instrument line slope problem and fitting
4 problem at Watts Bar. We had to look at
5 Sequoyah and Browns Ferry for that same
6 problem.

7 We had environmental qualification
8 problems at Sequoyah, that basically was the
9 reason it was shut down. We had to take the
10 experience, learn there and apply it to the
11 other plants. There are nine operating plants
12 or nine plants, not operating.

13 Q. One further question regarding that June
14 5th letter. On the first page, bottom
15 paragraph, I believe, Mr. White quotes from
16 his March 20th letter, and quotes the
17 terminology regarding there being no pervasive
18 breakdown. He leaves out the phrase that
19 follows that, meaning that we are in overall
20 compliance with Appendix B. Is there any
21 significance to that, the fact that he left
22 that phrase out?

23 A. I didn't -- I don't know. I didn't take
24 any significance from it.

25 Q. Did you participate in that review of

[Handwritten signature]

1 that letter?

2 A. Yes, I read this letter.

3 Q. Do you recall any discussions about
4 leaving that phrase out?

5 A. No, I really don't. I recall the
6 discussions about he shouldn't send it.

7 Q. He shouldn't send it?

8 A. It wasn't needed. My suggestion, when
9 he thought about writing this, was that he
10 shouldn't write it.

11 MR. WILLIAMSON: Wasn't that in
12 response to a May 16th letter from --

13 THE WITNESS: Yes. That May 16th
14 letter was their -- results of their review
15 and conclusion of the March 20th letter. And
16 Steve White felt the obligation to respond. I
17 felt no obligation to respond. As a matter of
18 fact, I thought the more letters we wrote back
19 and forth on this, the longer the thing would
20 go on without being resolved.

21 BY MR. NORTON:

22 Q. One final question, Mr. Kelly. From the
23 little over a year now that you've been with
24 TVA --

25 A. I'm not with TVA any more.

OK

1 Q. From the little over a year that you
2 were associated with TVA, have any of the 11
3 NSRS Perceptions turned out to be accurate?

4 A. Yes, some of them.

5 Q. Which ones?

6 A. Well, instrument line ~~and~~ ^{line} adequacy ~~slope~~ ^{line}
7 fittings, those were both true. Slope was ^{line}
8 fixed, the fittings did not require any fix.
9 Bending induced stresses on conduit was
10 examined and found not to be a problem. I
11 don't recollect the others.

12 MR. MURPHY: How about number one?

13 THE WITNESS: As constructed,
14 welding program is indeterminate. We found at
15 least two problems in there which could be
16 defined -- have been defined as breakdowns.
17 There may be others in that.

18 Both of those problems in the ~~structure~~
19 welding are fairly restricted and
20 well-founded.

21 MR. MURPHY: Has TVA not submitted a
22 letter stating that there had been a breakdown
23 in the structure welding program?

24 THE WITNESS: Yes, they have.

25 MR. MURPHY: How about number two.

Kelly

1 there?

2 THE WITNESS: Electrical cable
3 present qualification condition is
4 indeterminate. I don't know the current
5 status of that, but I think that was
6 reexamined and basically found out to be a
7 problem, but I'm not positive of that.

8 MR. MURPHY: You're not sure of that,
9 right?

10 THE WITNESS: I've been out of the
11 TVA QA system since September, except on
12 ~~another~~ occasion, so I don't know the current
13 status of all those issues, but most all of
14 these issues required some reviews, and even
15 on March 20th, we said there were a number of
16 these things that were real problems, and
17 needed to be fixed. It's not as though we
18 ~~saw everything is perfect~~ seen. We never said
19 that and didn't intend it to be that.

20 BY MR. REINHART:

21 Q. Mr. White, on the final submittal in the
22 March 20th letter, did that, as written,
23 document ever go back to the NSRS itself for
24 review itself to see if it was adequately
25 raising the issues that they raised?

1 A. I don't believe it did go back. If it
2 did, I didn't present it to them.

3 Q. You had mentioned to us on the January
4 8th interview, I believe it was in the time
5 frame of the Lundin effort, that you had a
6 printout of NCR's that you reviewed?

7 A. Yes.

8 Q. Could you tell us what you looked at
9 there, what you determined from that?

10 A. It was -- I thought it was slightly
11 after that Lundin effort, but in that general
12 time frame. Basically, I looked to see if the
13 TVA QA program, as applied at Watts Bar, was
14 detecting problems as I expected it should
15 have, and if they were tracking them to
16 resolution. I found they were. I found they
17 had identified a fairly significant number of
18 nonconformance in specifications, and that
19 they had been controlling them and tracking
20 them till they were resolved. So I had, from
21 historical record, at least a broad
22 perspective that the QA program was
23 functioning.

24 Q. Did you just look at the printout or did
25 you go further than the printout? How

1 in-depth of a --

2 A. I looked at the audit reports. I looked
3 at all parts of things that were identified
4 and resolved problems. I also looked at the
5 types of issues that they were picking up to
6 see if I expected that those are the things
7 that they should have found, and they were.

8 I also looked at how long it was
9 taking them to resolve them. And I found that
10 in most cases, they were just about what
11 should have been happening for a construction
12 program.

13 Q. In addition to the piece of paper that
14 came out of the computer that had the list on
15 it, did you look at other pieces of paper that
16 might have related to those numbers? Did you
17 go to backup documentation?

18 A. I looked at a lot of nonconformance
19 paper to see if it had a disposition,
20 probably, too. General course of reviews.

21 Q. No, no, I mean in the specific effort of
22 looking at that printout, I'm trying to get a
23 feeling for how -- about how long that took
24 and what all, as far as depth of review there,
25 was it just the printout, or did you, like,

23K

1 pick maybe seven items at random and go follow
2 them through the system or how did you --

3 A. No, no, I didn't pick any of the
4 historic ones. What I was doing was sort of a
5 management process review to see if they were
6 finding things wrong like they should have.

7 Q. Of just the printout itself?

8 A. That's right.

9 Q. Now, last one, knowing today how the
10 Lundin effort has been used, would you have
11 done that differently?

12 A. Absolutely.

13 Q. What would you have done differently?

14 A. First of all, I would have made it a
15 more intense review, and I would have had a
16 much more formal look with predetermined plans
17 as to the scope that they were going to talk
18 to, what they were going to look at, so I
19 could make sure up front that I didn't miss
20 anything. Then I would have had formal
21 reports back for the record.

22 I don't have them. But if you told
23 me a year ago you were going to ask for them,
24 I probably would have had them for you now.

25 BY MR. WILLIAMSON:

OK

1 Q. One thing. Going back to the November,
2 '85 time frame when White did their management
3 assessment of TVA, then we go to January when
4 we had your systematic analysis of identified
5 issues, and then in February, we had Mr.
6 Lundin doing a, we've been told, a snapshot of
7 NSRS perception issues, and then you mentioned
8 something a few minutes ago that I had
9 forgotten about, was H G & G was on board
10 doing their welding evaluations, and
11 identified some problems in the welding
12 program, and also QTC was aboard, which
13 identified numerous areas of concern, and all
14 of these reviews, assessments, analyses all
15 pointed to one thing, problems in QA program
16 or QA related problems. And with all of this
17 information, the conclusion in the March 20th
18 letter was that there was no pervasive
19 breakdown and that TVA was in compliance with
20 10 CFR 50, Appendix B, and with a high level
21 of expertise, yours, Mr. Lundin's and a number
22 of other people in the QA program, I guess I
23 don't understand how you can come to that
24 conclusion.

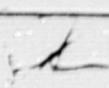
25 We've been talking about it for

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1 several hours. But there were so many factors
2 that pointed to problems in the QA program. I
3 was wondering if these were even
4 considerations in that final letter that went
5 out on March the 20th?
6 A. Some of them were, obviously. The EG &
7 G Department of Energy EG & G Welding
8 Program was one of the issues in the NSRS
9 perceptions. It had been -- it probably was
10 responsible for initiating that welding
11 review. And that review was reasonably well
12 underway by March.

13 Prior to issuing the March letter, I
14 had a verbal report from the principals in EG
15 & G on the sites as to their program review.
16 Their review was in two pieces; one was a
17 program review, one was a hardware, specific
18 hardware review. And I had a verbal report
19 from them as to their conclusions from the
20 program review, which was, at that point, I
21 believe, 99 plus percent complete.

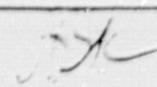
22 And that report was that they had
23 identified the requirements for a welding
24 program and had tracked back through the
25 appropriate documents QA program procedures



1 and specifications and been able to track back
2 the requirements, that they existed in the
3 program all the way back to within a few weeks
4 of the initiation of activity. And they had
5 something like 26 items they were still
6 looking at. So I had that verbal report. And
7 it's substantiated, from what they told me,
8 that the program had been in compliance with
9 Appendix B.

10 Now, subsequently, they hedged a bit
11 on that information. It changed, they
12 vacillated rather substantially. As more
13 people became involved, like the Dingell
14 Subcommittee and they came under more
15 scrutiny, they wanted to do more work as to
16 the implementation and they did. But the
17 information we had was that the program
18 complied, from them.

19 The QTC efforts had generated on
20 some 5,000 interviews some 1700 employee
21 concerns, a large number of which were
22 duplicated in the NSRS issues and another
23 large number of which were duplicated as
24 nonconformance in specifications, and one of
25 the things I found was that I was triple

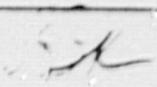


1 counting or quadruple counting issues all over
2 the place, because I had seven or eight
3 nonconformance tracking systems. The same
4 items showed up in all of them.

5 That didn't disturb me as long as I
6 was capturing them. I didn't like having
7 several ways of trapping the nonconformance,
8 but as long as I was capturing them all, at
9 least I had a baseline.

10 One of the things I was doing that
11 used up the people was to collapse that into
12 one system, not several. But in that, there
13 was, at the time we wrote the letter, we
14 didn't have any new information that would
15 lead us to reach a conclusion contrary to what
16 we had seen in the attachments to the March
17 20th letter. So there were lots of efforts
18 going on.

19 And, in fact, it was fairly well
20 recognized at all levels of the industry, as I
21 alluded to earlier, and the political scene,
22 that there were problems at TVA, management
23 problems, and that's why White was brought
24 in. I didn't have anything to contradict
25 that, and I haven't really seen anything to



1 contradict it since.

2 BY MR. MURPHY:

3 Q. Just one little question. Who at EG & G
4 told you -- related this information to you
5 that they had?

6 A. Fogarty.

7 Q. Fogarty?

8 A. Actually, he was conducting a
9 presentation. I'm not sure he said those
10 words, but his presentation was Ken Therp and
11 he had another fellow that was doing program
12 review. They were concentrating on the
13 hardware.

14 Q. Mr. Kelly, have I or any other NRC
15 representative here threatened you in any
16 manner or offered you any reward in return for
17 this statement?

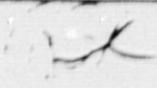
18 A. No, you haven't.

19 Q. Have you given this statement freely and
20 voluntarily?

21 A. Yes, I have.

22 Q. Is there any additional information you
23 would like to add to the record?

24 MR. MESERVE: Want to talk to me for
25 a minute?



1 A. Let me pause for a minute?

2 (Witness and counsel confer.)

3 (Resumed at 3:10 p.m.)

4 MR. MURPHY: Mr. Kelly was allowed
5 to consult with his attorney and now would
6 like to add something for the record.

7 THE WITNESS: Okay. What I'd like
8 to do is just summarize the underlying
9 approach that we took in the preparation of
10 this letter. We tried to be responsive, to
11 begin with, to the request of January 3rd, to
12 be totally factual and call it precisely as we
13 saw it.

14 We tried not to prejudge the
15 conditions, but to judge them as we -- as they
16 evolved on their own merits and make the call
17 based on the experience available to us and to
18 TVA through us.

19 We tried to make clear and concise
20 in the establishment of the facts and provide
21 a record that would be completely available to
22 the MRC and did, in fact, do that, to the best
23 of our ability by compiling all the backup
24 which I think has been made available to you
25 gentlemen.



1 So just in summary, the answer we
2 provided has been subject to a lot of
3 second-guessing, but it is to the points as we
4 understood them, and it is based on the best
5 judgments we could make with the facts
6 available to us at the time. There's no
7 question, that's all I have to say.

8 Q. There was no effort in your opinion on
9 anyone's part in TVA to word the response in
10 the form that might be misleading to the NRC
11 or anyone else that might have read it?

12 A. No, there was no attempt at all.

13 Q. No attempt to mislead.

14 A. Not to the best of my knowledge or
15 anything I could even suspect of that
16 motivation.

17 MR. MESERVE: No questions.

18 MR. MURPHY: This interview was
19 concluded at 3:15 on 3 March, 1987. And we
20 thank you, we really do thank both of you for
21 being patient. You spent all this time. I
22 know it's a tough flight flying in here in the
23 morning, and it's difficult and we appreciate
24 it.

25

Richard Kelly