

COPY

UNITED STATES

NUCLEAR REGULATORY COMMISSION

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Fallon
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IN THE MATTER OF:
INVESTIGATIVE INTERVIEW
10 CFR 50, APPENDIX B
Interview of Richard B. Kelly

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TRANSCRIPT of testimony as taken
by and before Sean M. Fallon, and Kathleen A.
Paglione, Certified Shorthand Reporters and
Notaries Public of the State of New Jersey, at
the offices of Stone & Webster Engineering
Corporation, Three Executive Campus, Route 70
& Cuthbert Boulevard, Cherry Hill, New Jersey,
on Tuesday, March 3, 1987, commencing at 10:25
o'clock in the forenoon.

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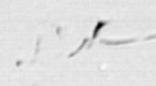
1 MR. MURPHY: It's now 10:25, March
2 3, 1987. This is an interview of Mr. Richard
3 B. Kelly who is employed by Stone & Webster
4 Engineering Corporation. The location of this
5 interview is the Stone & Webster Engineering
6 Corporation headquarters at Cherry Hill, New
7 Jersey. Present during the interview are Mr.
8 Kelly, Mr. William G. Meserve, who is the
9 Stone & Webster corporate -- acting as Stone &
10 Webster corporate attorney. Len Williamson,
11 Larry Robinson, Leo Norton, Mark Reinhart and
12 Dan Murphy. As agreed this is being
13 transcribed by a court reporter.

14 The subject matter of this interview
15 concerns TVA's March 20th, 1986 letter to the
16 NRC, regarding their compliance with 10 CFR
17 50, Appendix B.

18 Mr. Kelly, would you please stand
19 and raise your right hand? Do you swear or
20 affirm the information you are about to give
21 is the truth, the whole truth and nothing but
22 the truth, so help you God.

23 THE WITNESS: I do.

24 MR. MURPHY: At this time, Mr.
25 Meserve would like to make a statement.



1 MR. MESERVE: I would like to state
 2 for the record that my name is William G.
 3 Meserve. I'm with the law firm of Ropes &
 4 Gray, in Boston. I am counsel for Stone &
 5 Webster Engineering Corporation. I am not
 6 here today as counsel for Mr. Kelly
 7 individually, but I am here at the request of
 8 the company, which Mr. Kelly is an officer,
 9 with Mr. Kelly's concurrence.

10 I've explained to Mr. Kelly that he
 11 is entitled to his individual counsel and he
 12 has indicated that he is content to go forward
 13 without his own counsel, but with me sitting
 14 in as counsel for the company.

15 I will be here for the -- for the
 16 next two or three days, however long these
 17 proceedings take, and I can say that I know
 18 with Mr. Houston, who I think will be here
 19 later today, that the same agreement prevails
 20 and I believe it does with the other three
 21 witnesses, but will confirm that at that
 22 time. I might say that I have represented
 23 Stone & Webster Engineering Corporation in a
 24 variety of matters over the years and I am
 25 here primarily because this is a cautious

1 company and they take this matter seriously
2 and thought that it would be advisable to have
3 counsel present, so they've asked me to
4 attend.

5 MR. MURPHY: Thank you.

6 BY MR. MURPHY:

7 Q. Mr. Kelly, would you please give us a
8 little bit about your educational and
9 employment experience, with some emphasis on
10 your nuclear quality assurance experience?

11 A. I am a graduate of Massachusetts
12 Institute of Technology in 1956. B.S.
13 Engineering and Management. That's the
14 subject. That's not the specific title of the
15 degree. The -- my experience was with -- as a
16 sales engineer with Ingersoll-Rand for a year,
17 at which time I moved to Bethlehem Steel
18 Corporation and became involved in nuclear
19 power as a production engineer in 1958.

20 I left them for about a year, but
21 was more or less unbroken in that capacity at
22 Bethlehem Steel until they sold the facility
23 to General Dynamics and I stayed in the same
24 basic capacity with General Dynamics until the
25 mid-'60's. I then became involved in other

1 shipbuilding-related activities, financial
2 planning, performance, measurement, things of
3 that nature until '74, at which time I joined
4 Stone & Webster Engineering Corporation and
5 entered into my first direct responsibilities
6 in quality assurance and I have been
7 essentially in the quality assurance field
8 continuously since '74. Some small
9 assignments outside of that field, but still
10 in the nuclear field.

11 Q. Thank you.

12 As we mentioned earlier, the office
13 of investigation has been asked to look into
14 how the March 20th, 1986 TVA response to the
15 NRC was prepared, some of the problems that
16 have been encountered, and just the general
17 background of how that letter came into
18 being.

19 If you would, could you relate to us
20 your role in the preparation of that letter,
21 in addition to your role in preparation of the
22 letter, what knowledge or participation you
23 had in the preparation of the technical
24 reviews by the TVA line organization, which
25 were in response to the NSR's, Nuclear Safety

1 Reserve staff's eleven perceptions, that the
2 Craig Lundin review that was conducted and has
3 been identified, I believe, as an independent
4 review of the situation, the report, the
5 systematic analysis that was done by a group
6 of individuals under the direction of Mr.
7 Nace, we believe, and also your knowledge of
8 a -- an analysis that was done probably under
9 a small group led by Mr. White in the October,
10 November, 1985 time frame. Do it, if you
11 would, obviously as best you can recall, in
12 that chronology of events, as you saw them.

13 A. All right. First event was a small
14 review of the TVA nuclear program done by a
15 group of people, some Stone & Webster and some
16 outside personnel, led by Steve White. I
17 believe that Bill Wegner from Beta was
18 associated with that. The Stone & Webster
19 people were drawn from various disciplines,
20 construction, engineering, quality assurance.

21 Prior to the initiation of that
22 event we held a small meeting, which I
23 participated in, to more or less plan how we
24 would review what was going on in the TVA
25 system. That was my only direct participation

1 in that review, although I did sit in on a
2 preliminary results meeting at the conclusion
3 of their efforts, some three, four weeks
4 later.

5 I attached one of my key people to
6 that effort and he participated in that
7 review. Fellow by the name of Bob Burns. I
8 don't believe there was any formal report
9 written of that, although there was a report,
10 verbal report, rendered at the conclusion of
11 it, and it indicated a number of weaknesses
12 through the TVA system. Some in management,
13 some in the integration of their efforts. I
14 didn't participate in the presentation of that
15 to TVA, although I heard that it had been
16 presented. That's, basically, all I know of
17 that first effort in November, December.

18 My next involvement with the TVA
19 system came after Steve White reported for
20 work -- he had been requested to assume the
21 manager of nuclear power role by the TVA Board
22 of Directors, and he started that job early in
23 January of 1986. Something around the 10th,
24 7th or 10th. Somewhere in that range.

25 Almost immediately after he went

1 down there, and he had with him on reporting
2 time, Larry Nace, Ed Siskin, and Walt
3 Sullivan. Larry Nace called me as the Stone &
4 Webster director of quality assurance and
5 asked me to come down and consult with them
6 about some of the things that they were --
7 they had to get initiated. Some of the
8 beginning mobilization efforts. So, I did go
9 down. I believe it was January 13th. Just
10 about that time.

11 I spent the first couple of days
12 working on structuring the systematic analysis
13 in conjunction with John Kirkebo and Jim
14 Houston. What we were attempting to do was to
15 provide some focus by the analysis of the
16 previous year to year and a half's worth of
17 work and I think we cited something about
18 sixteen months of past activities, preceding
19 1 January '86.

20 We developed a methodology to take
21 information generated by all outside agencies
22 that we were able to identify, catalog them,
23 and try and determine if they -- there was any
24 underlying ~~patent~~^{PATENT} or root cause that was
25 evident from that analysis. To do that we

1 took the NRC inspection reports, SALP reports,
2 Systematic Analysis of Licensing Performance,
3 reports from the ANI, which was Hartford Steam
4 Boiler, INPO, there was a couple of others
5 that were finished and I think we tried to
6 include any outside agent that had done an
7 inspection or audit and came -- and determined
8 the existence of any problems.

9 We took them as raw input. We did
10 not attempt to determine the validity of the
11 finding or problems identified in those
12 reports, nor did we attempt to determine what
13 corrective or preventive action was taken or
14 if the item had been completed. We were just
15 taking the raw NRC data and other agencies'
16 data and cataloging it. That was done
17 primarily when we started it to provide focus
18 for the White team to prepare the recovery
19 plan, which was to be representative of the
20 TVA Volume 1 recovery plan. That report was
21 subsequently issued under a covering note from
22 Kirkebo, over my objection, because I felt it
23 was inappropriate utilization of the
24 information to issue it as a report, since we
25 could not attest to the validity of the

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1 original findings, nor did we attempt to
2 determine if corrective preventive action had
3 been accomplished on each of those. But, for
4 the purpose it was constructed it was useful
5 in structuring the recovery program.

6 That was the first week, week and a
7 half, and to that effort I added a number of
8 people from my staff. After we had determined
9 the methodology I assigned people from my
10 staff to go and assemble the information.

11 One of those people was Craig Lundin
12 and he -- he reported down there for that
13 effort the second week, which was about the
14 16th -- 15th or 16th of January. He might
15 even have been there the week before that, but
16 my recollection is the second week he showed
17 up. When he showed up down there the Appendix
18 B issue had been presented to Larry Nace as an
19 issue. The letter from Mr. Denton to TVA,
20 dated, I think, January 3rd was on the table,
21 had been identified to Steve White and Larry
22 Nace, who was acting as his administrative
23 aid. Larry asked me if I had somebody that
24 could look at the issues involved in that
25 letter. So, I loaned him Craig Lundin to do

1 that. That's how Craig Lundin became involved
2 in that effort early on.

3 He took those -- the NSRS
4 Perceptions that were attached to the January
5 3rd letter, went to Watts Bar to determine
6 what, if anything, was being done about them.
7 He found that there were a number of people
8 working on defining the scope of each of those
9 issues, and determining what had already been
10 done and what else needed to be done. He was
11 involved in that for a couple of weeks working
12 directly with Nace and I had minimal
13 involvement in that individual effort, until a
14 little later in January, when Walt Sullivan
15 asked me to come to a meeting and see if I
16 could give them an opinion on the seriousness
17 of the Appendix B related issues. So, I did.

18 I went to a meeting and found in the
19 meeting Walt Sullivan, Doug Nichols, who was
20 attorney for TVA, and Bob Mullin, who was the
21 manager of quality assurance -- operations
22 quality assurance was one piece of the quality
23 assurance organization for TVA. Mullin --
24 this was about 9:00 o'clock in the morning,
25 one morning, and Mullin had in his possession

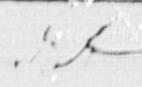
1 things that he had been working on the
2 previous day and all night. He looked a
3 little bleary-eyed, because he had worked all
4 through the night to produce some packages of
5 information, white papers, which contained as
6 much of the factual information surrounding
7 each of those eleven perceptions as they were
8 able to pull together.

9 He had two documents for each, one
10 was a little write-up by NSRS, one was a
11 write-up by the line organization, which may
12 have included QA, construction, engineering,
13 whoever was -- had the knowledge, describing
14 the background and facts around those issues.
15 At that meeting he had, I believe, eight
16 finished drafts of -- eight issues in finished
17 draft, one that was half typed and one that
18 was pencil written and there was another one
19 or two -- one that was incomplete at that
20 point.

21 Well, I spent the next two hours or
22 so listening to him describe what the issues
23 were, what the background was, and reading
24 those documents, and reached a preliminary
25 conclusion with that much information that I

1 didn't see any bell-ringers in that package of
2 information. I saw problems that I -- that
3 were described that looked like they had been
4 the subject of non-conformances documented and
5 somebody was working on them. I saw some
6 issues that I felt were without merit. A
7 number of individual ones that I felt, if
8 true, they had no significant meaning. Among
9 those would be things like the quality
10 assurance organization's independence or the
11 traceability issue on conduit hangers.

12 My conclusion, looking at them, was
13 I had seen those kind of issues before. If
14 all the facts presented by NSRS are true, it's
15 a so what. Does not represent a major
16 problem. I found a few issues that were --
17 looked like they had some substance to them
18 that were -- I had incomplete information in
19 the package. I couldn't make a judgment.
20 But, I didn't see any major tragedy about to
21 happen. It looked like the normal things that
22 I would have expected to see in a plant that
23 was started in the late '60's or early '70's
24 and had been working for fifteen years. With
25 the changes in regulation and interpretations,



1 I didn't see anything in there that surprised
2 me.

3 So, that was my first involvement
4 and I indicated that I didn't see any
5 bell-ringers in that meeting to Sullivan and
6 to Mullin and to Doug Nichols. But, that they
7 had to finish up the information and make sure
8 that the facts that they presented were
9 verified, had some basis, in fact.

10 I also recommended that somebody
11 else should, beside the line organization,
12 ought to look at those white papers to see if
13 the information was properly presented. I had
14 no basis for forming a judgment, whether what
15 I was reading was fact or complete or if it
16 was accurate. I just didn't have any basis.
17 I had had no -- to that point I had had no
18 contact with the TVA QA organization at all.

19 So, I made that recommendation and a
20 few days later was asked if I could provide a
21 group of people to go and test this. I
22 selected from my quality assurance staff, with
23 one construction fellow from Stone & Webster,
24 a group of people who had experience in the
25 areas of these issues, that had worked in them

1 recently. All had worked on nuclear plants or
2 were currently working on nuclear plants. All
3 had specific experience in one or more of
4 these issues at other plants, and each of whom
5 I had a calibration on that if they told me
6 something, I knew them well enough to know
7 that I was not suffering from a lack of
8 communication. They would -- I could
9 interpret what they told me.

10 So, I selected, I think it was about
11 six people. Larry Nace asked me to get them
12 in there. I did and sent them out under the
13 direction of Lundin. They went out and into
14 the field and looked at white papers that were
15 available, the actual practices in the field,
16 how people were controlling materials, or weld
17 wire, how the programs were working. They
18 spent a little over a week, I think, doing
19 that. About a week. They finished that
20 assignment and I sent them home.

21 They had been through their material
22 with Lundin who went through it with me, and
23 they basically substantiated what was in the
24 white papers I have read. That they were
25 generally reflective of the actual situation

Kelly

1 in the field, they didn't find any conditions
2 which should have been non-conformance that
3 had not been. They found some weaknesses in
4 the way TVA did business, but nothing that was
5 really out of the ordinary. Things that had
6 not evolved or progressed with the industry,
7 as most of the plants my people had been
8 coming from had progressed.

9 So, on that basis I restated my
10 opinion that we did not have any major
11 bell-ringers, but we did have a lot of work to
12 do and stated that to Mace and may even have
13 stated it to White. I'm not sure.

14 That was over the period, the first
15 couple of weeks of February. About the 17th
16 of February White was interviewing people for
17 various management positions within TVA, loan
18 managers positions in engineering and
19 construction, QA and other places.

20 Unfortunately, I happened to have dinner with
21 him one night and he selected me to run the QA
22 organization. I didn't have an interview, I
23 didn't volunteer and I didn't want it, but I
24 agreed to take it.

25 So, my involvement in the Appendix B

Kelly

1 issue became rather direct at that point,
2 because at that point I now had to make sure
3 that the information that was provided was
4 complete and totally accurate.

5 Now, in the process of Lundin's
6 involvement from mid-January through the end
7 of February there were several drafts of
8 responses to that letter, and several versions
9 of these White papers. Let's say, not several
10 versions. Several revisions. The basic
11 content of the white paper didn't change very
12 much from the day I first saw it until the day
13 it was sent with the letter, but there were
14 revisions, a whole series of revisions along
15 the way where there were ambiguities in it, in
16 any one of the attachments or there was a --
17 they were not clear or there were obvious
18 trails that had not been followed out to make
19 sure that we knew all the facts that were
20 available.

21 So, they were revised to enhance
22 them, to add information. They were also
23 revised to incorporate later input from the
24 NSRS because all this time NSRS was revising
25 their original input documents, and they

Kelly

1 continued for some time after March 20th, as a
2 matter of fact. Amongst the things that they
3 did, they went and catalogued, by employee
4 concerned number, the concerns they felt
5 supported their position. The NSRS position.
6 Each one of those had to be looked at by the
7 line organization and tested. Those were
8 revised up until March 20th.

9 As I said, there were revisions of
10 the transmittal letter, several revisions
11 along the way. A couple of them got close to
12 be signed out, but were delayed because of
13 other inputs.

14 During this period of February,
15 March, there were two reports issued by OTI. I
16 believe, it may have come out under NSRS
17 letterhead, but they were stemming out of the
18 employee concern effort, one on Watts Bar
19 concrete and one on Trench -- what we call
20 Trench B. Those reports were not part of the
21 original eleven NSRS contentions, but were
22 somewhat similar in nature.

23 We felt we had to at least examine
24 those and see if there was -- if they
25 introduced any changes in the information we

1 had in our analysis of the eleven issues,
2 because in each case they indicated a
3 non-compliance to Appendix B, so we wanted to
4 know whether, in fact, they did represent a
5 non-compliance to Appendix B before the March
6 20th letter was sent.

7 The reports on those two issues were
8 finalized sometime later, but by March 20th we
9 had a reasonable feel for what was involved in
10 it. The actual letter and the attachments
11 were reviewed by numerous people along the
12 way, virtually everybody got a chance to
13 rewrite the letter, and it was rewritten and
14 changed substantially along the way.

15 Finally, on March the 19th or 20th
16 we had what we considered enough information.
17 We had chased out most of the threads on the
18 eleven issues, White had spent days
19 questioning people, primarily myself and
20 Houston, about what some of these things
21 meant, what was normal practice, what was
22 expected in a plant that was ten years old,
23 had the practices and procedures in the
24 industry changed from '72 to '84, what did
25 prompt mean, what did the regulations say. He

Kelly

1 had lots and lots of questions. He went
2 through every one of those attachments and the
3 letter word by word several times.

4 We had a -- as I say, about the 19th
5 or 20th, we had a final review of it with
6 myself, Kermit Whitt, who was the head of NSRS
7 at the time, Dick Gridley, licensing, Wegner,
8 Bill Wegner from Beta, and White, and White
9 read the letter and said, if nobody has any
10 problems, we'll send it.

11 So, each of the TVA people or loaned
12 managers to TVA, which excluded Wegner, but it
13 was myself, Gridley, Kermit Whitt, signed a --
14 stamped off or signed off on the letter saying
15 it was as good as we can make it, and it was
16 signed and sent.

17 As a matter of fact,
18 hand-delivered it to Washington, to the NRC
19 office on Friday, whatever the date was, the
20 20th or the 21st. John Kirkebo and I took it
21 up. We took it up primarily so that if there
22 were any questions by the people that received
23 it, they wanted to read it and ask any
24 questions, we were prepared to answer them.

25 I might interject one other

1 comment. From what I just told you it sounded
2 like we were working diligently and almost
3 full time on the Appendix B issue. Such was
4 not the case. Between my assuming the
5 position of director of QA on the 17th of
6 February and March the 20th, I had reorganized
7 the entire TVA QA organization. I had
8 interviewed most all the key players within
9 the TVA system. I had reorganized the
10 individual departments and assignments. I had
11 started the revision to their QA program. I
12 had gone through the procedural system and
13 determined what changes were required. There
14 were lots and lots of things going on.

15 So, it wasn't full time devotion to
16 the Appendix B. It was a little bit of time
17 each week until we finally got to the point
18 where we thought we could send it. There had
19 also been hearings before commissioners, which
20 took two or three days out of our activities
21 while we prepared Dean, Waters and White, and
22 the other people who had to present material.
23 It was a busy time.

24 BY MR. WILLIAMSON:

25 Q. Let me ask you, Mr. Kelly, going back to

1 November, 1985, when there was a management
2 assessment, I guess it was called, by Stone &
3 Webster personnel. You were briefed by Mr.
4 Burns as to the results of this assessment?

5 A. To a small extent. I sat through a -- I
6 guess an informal briefing when they were
7 trying to organize -- the whole team was
8 trying to organize its thoughts prior to
9 presenting them to TVA Board of Directors.

10 Q. Do you recall the results of the -- this
11 management assessment?

12 A. I think I said they found lots of
13 weaknesses. They found -- hard to think of
14 the right word -- highly segmented
15 organizational structures, where parties with
16 the same basic interest were approaching
17 problems differently or in a counterproductive
18 way.

19 You have to remember that that
20 management review that was done in a couple of
21 weeks encompassed four nuclear plant sites and
22 two offices, by eight or nine people. It was
23 done mostly by interviewing people within the
24 TVA system. They really did not see anything
25 of the actual practices. All they were

1 getting was hearsay.

2 Q. Do you recall who commissioned or
3 authorized that review?

4 A. Well, for Stone & Webster, the one
5 that -- the person who was initiated was Bill
6 Matson.

7 Q. Was this a request of TVA?

8 A. It started out as -- sometime before
9 November, started out as Stone & Webster and
10 other people that we were dealing with looking
11 at the things in Nucleonics Week and Inside
12 NRC and just seeing reports of problems after
13 problem coming out of TVA and comments made
14 that we had heard from all sorts of sources
15 about how bad the nuclear industry was.

16 Our interest was twofold. One, our
17 business was largely involved in nuclear power
18 and we didn't think nuclear power was as bad
19 as people were accusing it of. Secondly, we
20 were in the business of selling engineering
21 and construction services and perhaps we could
22 help them. So, we went in there initially
23 voluntarily, volunteered by Matson, to see if
24 we could help them focus their activities to
25 better solve their problems.

1 Sometime during the period of
2 November, December, the focus shifted a little
3 bit from just offering them some outside free
4 consulting, which we later found out you
5 couldn't do, you can't offer free consulting
6 to a government agency, to offering to help
7 them. Now, that took some funny twists, to
8 the point where Steve White ended up as
9 manager of nuclear power. That was never
10 envisioned when we started that effort in
11 November.

12 Q. You mentioned that upon completion of
13 this assessment there was a verbal briefing
14 provided to TVA. Do you recall who was
15 briefed? You mentioned the Board, you
16 thought.

17 A. I think it was -- I'm hearsay on this,
18 because I wasn't a player, but I believe it
19 was given to Parris, who was then the manager,
20 and subsequent to briefing him, they went on
21 and briefed the Board.

22 Q. You raised the question or made a
23 statement that you didn't concur with the
24 issuance of the systematic analysis of
25 identified issues. We call it the Nace

1 report. I'm not sure where we came up with
2 that name, but --

3 A. He charted it.

4 Q. So, this was by Mr. Kirkebo and I think
5 it had twenty-two or twenty-three experts in
6 different fields that went out and did this
7 analysis of critical issues and concerns, I
8 think is what they said.

9 A. Right.

10 Q. Were you apprised -- were you routinely
11 briefed on results of this analysis, as it was
12 being conducted?

13 A. I did part of it.

14 Q. You were involved in part of it?

15 A. I set up with John Kirkebo the
16 cataloging system we used. I set up the
17 review system with one of my people, so we
18 could make sure we got all the documents. I
19 did the second review on a large number, not a
20 majority, but a large number of the documents
21 which fed into that, so I'm thoroughly
22 familiar with the process and that's why I
23 recommended that we should not put it out in
24 writing, because other than for the purpose
25 which we started out to serve, that was to

1 focus the recovery effort, the -- any other
2 use of that information was, in my estimation,
3 was, and is invalid.

4 I know how it was done. I know how
5 we catalogued things, how we put a label on
6 them, and it was best judgment based on
7 experience, without actually seeing anything
8 but the text of the NRC report. I've seen NRC
9 reports that are atrocious. I've seen some
10 good ones. I've seen somewhere, I know, all
11 the facts involved in the issue, and if I read
12 the report, those issues, I could never have
13 concluded what the actual facts were. I had
14 all that experience going in and I said, just
15 taking this as raw data, presuming it's true
16 and factual and a hundred percent accurate, is
17 invalid. And then using that to reach a
18 profound conclusion about the entire TVA
19 system is not correct. Not the proper way of
20 doing it.

21 It is useful information, but it's
22 potentially very misleading and potentially
23 very damaging and unfair. So, that's why I
24 recommended we not put it out in writing. My
25 vote didn't count, obviously, because it was

Kelly

1 issued.

2 Q. In that report, and you certainly have
3 access to it here, there are a number of
4 issues that were highlighted. One being the
5 lack of management direction control and
6 involvement, lack of quality assurance
7 overview, inadequacy of problem evaluation and
8 corrective actions, lack of timeliness and
9 responsiveness to identify problems.

10 Almost -- at least the first ten or so of
11 sixteen are quality assurance related areas,
12 something that you had some experience in.

13 A. That's right..

14 Q. Did you see these -- the results that
15 were reached as being misleading? You had
16 reviewed an inordinate amount of
17 documentation, if I'm not mistaken, to come to
18 these conclusions. Did you think that any of
19 this information was misleading or not valid?
20 You had, I think, some eight hundred
21 documents -- that number keeps coming up.

22 A. Seven ninety-nine or eight hundred.
23 It's around there.

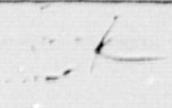
24 Q. A lot of documentation was reviewed in
25 order to reach these conclusions.

JK

Kelly

1 A. Yes. I could almost have written those
2 conclusions without reviewing a single one of
3 those documents, because I know what the
4 documents -- what the topics of the documents
5 are. The largest single grouping of documents
6 were NRC inspection reports and subsequent NRC
7 follow-up on those. Therefore, ninety percent
8 or more of the issues contained are going to
9 be focused on quality assurance. They are all
10 going to be negative, because there are no
11 positives ever in an NRC report. They will be
12 focused on the normal things that fall out of
13 NRC inspection modules, which are aimed at the
14 time of -- the phase of project through which
15 the Watts Bar program was going or any -- this
16 wasn't just Watts Bar. This was everything.
17 Sequoyah and Belefonte and Browns Ferry, so I
18 could pretty much guess what -- if I looked at
19 eight hundred NRC reports or seven hundred NRC
20 reports, the general context of the
21 conclusions that you could draw from it.
22 Could have done that -- this was a test to see
23 if NRC was doing its job properly, and they
24 did. They picked up everything.

25 Q. Many of these issues seemed almost



1 apparent to --

2 MR. REINHART: I really missed the
3 answer there. Did you say they were or they
4 were not misleading?

5 THE WITNESS: I said they were
6 misleading, as put together in the report,
7 because we did not make a judgment as to the
8 validity of any single one of them on which
9 those generalizations were based. You know,
10 if twenty-five percent or if one significant
11 issue was improperly portrayed in the NRC
12 report it might have had an impact on the
13 conclusion. We didn't test it to see if it
14 was valid or not. We assumed that the NRC
15 wrote it, therefore, there must be a basis for
16 it. At least as perceived by the NRC. That's
17 important to the recovery effort, because the
18 NRC is involved in accepting the recovery
19 program.

20 MR. REINHART: Well, based on that
21 assumption, that things were true, would you
22 say the results were misleading or not
23 misleading, if everything in the reports was
24 true?

25 THE WITNESS: Do you want to try

Kelly

1 that question again?

2 MR. REINHART: Okay. You said that
3 they could have been misleading based on the
4 fact that you weren't sure if the reports were
5 accurate. What I'm asking is, if the reports
6 were accurate, if that assumption was valid,
7 or we don't put in that as a qualifier, could
8 we say the results are misleading or not
9 misleading?

10 THE WITNESS: I'd have to re-read
11 it, but, generally speaking, I think we -- we
12 made the best effort possible to label each
13 identified problem. The labels being such
14 things as failure to follow a procedure. You
15 read a paragraph and then you -- after reading
16 it, you look at it and say, that tells me they
17 were having a problem or failed to follow the
18 procedure. So, that's the label. And the
19 second label we put on that is it's quality
20 assurance activities, so we put three or four
21 labels on it, fed it into our computer, and it
22 kicked out -- kicked back to us just what we
23 put into it.

24 Now, was that judgment valid? We
25 read a document, the best judgment we could

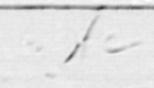
Reinhart

Kelly

1 bring to bear on it was used to label it. We
2 then assembled it. It's useful. It's not
3 necessarily something on which I would stake
4 my life or make a large bet. It was useful
5 for the purpose we were -- we started out to
6 apply it. That is, to help us prepare Volume
7 1 of the recovery program. By itself, it's a
8 useless document, because I have to know -- I
9 have to know the accuracy of the problems
10 identified. I have to know the corrective
11 actions that were involved. I have to know
12 the extent of the condition.

13 Many cases there was a single
14 isolated item, a bad weld, that was in the NRC
15 report, and the required action was for TVA to
16 go and inspect more of them. If it was a bad
17 weld, I don't have a big problem with that.
18 If they found hundreds of them, I might have a
19 big problem with that. I didn't have that
20 information.

21 MR. REINHART: Let me tell you what
22 I think you characterized it, then. The
23 people that did the job did a competent job
24 based on what they had to work with, but there
25 was follow-up required to really substantiate



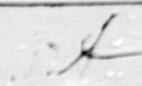
1 or not that effort?

2 THE WITNESS: No. There wasn't
3 follow-up required, because the NRC had
4 followed up. TVA had followed up as each one
5 of these issues has been generated over the
6 previous sixteen months. NRC inspectors had
7 followed up. So, the item, the subject that
8 we picked up, had -- each one had been
9 individually handled and resolved,
10 theoretically to the satisfaction of the NRC
11 inspector, or was in the process of working.
12 If we had intended to issue this report as a
13 treatise on problems and management
14 initiatives within the TVA system, then we
15 would have had to go get the rest of the
16 story. We would have had to see what TVA did
17 about the problem, if what they did was
18 proper, if they did resolve the problems, et
19 cetera. There were lots of things we could do
20 to follow-up, but we didn't. They were not
21 NRC catalogued to do it at that point.

22 BY MR. WILLIAMSON:

23 Q. So, this was basically a paperwork
24 review?

25 A. One hundred percent paperwork.

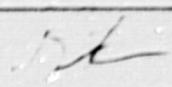


1 Q. Then, can I assume that the review by
2 Lundin was, in part, to validate some of the
3 findings that you -- some of the conclusions
4 that you came to in the systematic analysis
5 report? You didn't -- there was no effort by
6 the -- in the Nace report to validate these
7 conclusions?

8 A. That's right, there was no effort.

9 Q. By physically or visually verifying
10 hardware?

11 A. There was no effort to validate them,
12 that is right. The Lundin report was not done
13 or the Lundin effort was not done to validate
14 those findings. The Lundin effort focused on
15 eleven specific issues raised by the NSRS and
16 was only involved in those particular areas at
17 Watts Bar. It was limited to Watts Bar. Most
18 of these issues were at Sequoyah or a good
19 number of them were at Sequoyah and Browns
20 Ferry. We never looked at those two plants at
21 that point. Nor did we cover most of the
22 items. He didn't look at the management
23 practices. He's looking at construction and
24 engineering controls and the QA inspection of
25 those activities. So, they were totally



1 separated.

2 Q. The results that you had been privy to
3 or the conclusions that you had arrived at,
4 did you brief Mr. Wegner or Mr. White on the
5 results of your systematic analysis?

6 A. No, I did not. I think I did offer my
7 comment that it should not have been
8 published. It should not be published. I
9 told them that up front and they wanted it
10 anyway.

11 MR. NORTON: To whom did you offer
12 this comment?

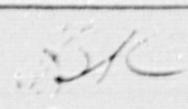
13 THE WITNESS: I believe to Steve
14 White. Certainly my opinion was known. This
15 was -- I don't remember the date, but I think
16 it's before I took over as --

17 BY MR. WILLIMASON:

18 Q. February 14th?

19 A. Yes. Before I took over as a line
20 manager.

21 Q. One other question here, right now. You
22 mentioned that at this time that Mr. White
23 came on, I think, January the 13th, and you
24 mentioned Mr. White's team at that time. Who
25 composed that team, do you recall?



1 A. Yes -- well, more or less.

2 Q. Okay.

3 A. Give you the more or less. It was Ed
4 Siskin and Walt Sullivan from Stone &
5 Webster. Bill Wegner, Hill Bass, and Bob
6 Brodsky from Beta, and Henry Stone from GE.
7 That was the -- his team. Nace was -- that
8 was a team of his principal advisors. Nace
9 was his administrative aid, I think in that
10 capacity. So, Nace was on the team, but he
11 had full-time duties.

12 Q. You were with --

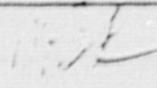
13 A. I was a consultant.

14 Q. Consultant at that time?

15 A. Right.

16 Q. Okay.

17 A. I've talked about my consultant -- for
18 instance, this review that was done by the
19 people I sent to test -- to calibrate the
20 information I was getting. I did not have a
21 report written by all those people.
22 Primarily, because I was trying to form a
23 judgment, myself. I was a consultant. I was
24 trying to test the waters to see if what I had
25 to deal with was reasonably reliable, as a



1 calibration process. I regret that at this
2 point I didn't have a full-blown report. If I
3 had -- if I knew all of this was going on I
4 would have written a report on it.

5 Q. Was that the effort by Mr. Lundin?

6 A. Yes.

7 Q. Did he discuss the results of that with
8 you?

9 A. Yes, he did.

10 Q. He also provided a letter to Mr. Mason?

11 A. Right.

12 Q. Did you --

13 A. I saw that letter before it went to
14 Mason.

15 MR. REINHART: What did you think
16 about the letter?

17 THE WITNESS: I don't really
18 recall. It was fairly bland, I thought.

19 MR. REINHART: Yes, it was, but were
20 you --

21 THE WITNESS: That's what I think I
22 told him to do.

23 MR. REINHART: Were you for it,
24 against it? Did you think it should have been
25 written? Shouldn't have been written?

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Kelly

1 THE WITNESS: That one, I thought we
2 should put something on the record.

3 MR. NORTON: Why do you say it was
4 very bland?

5 THE WITNESS: Why? Because, to
6 begin with, Stone & Webster was coming in in a
7 week, going through and trying to make a broad
8 assessment of things in large areas. Each one
9 of these areas encompass a lot of activities
10 and a lot of history. I was trying just to
11 get my own calibration on whether I was
12 getting a reasonable story. Wasn't trying to
13 identify every weakness or every problem or
14 every action required to strengthen the
15 program. That came later. This was a quick
16 effort.

17 I didn't want Stone & Webster
18 necessarily to be taking a formal position in
19 this matter, because we were just furnishing
20 some -- a help and assistance at that point.
21 I did not have a task, other than specifically
22 to do that job and to provide some consulting
23 services on the Appendix B issue. So, I
24 didn't feel that I wanted to go on record with
25 an official Stone & Webster position with that

1 much effort.

2 MR. NORTON: Because there wasn't
3 enough effort expended to support such a
4 position?

5 THE WITNESS: Well, we were looking
6 at a very small sample, one plant only, and
7 trying to generalize it. And, in truth, the
8 people came up with a number of weaknesses.
9 Things that they would not have done the way
10 that they saw, but they were adequate. I
11 would not have allowed some of the things to
12 be done the way they were being done, if I had
13 run the show, but that didn't make them
14 wrong.

15 For instance, I would -- I was not
16 in favor of the organization for QA. I found
17 it to be difficult, had some significant
18 exposures because it was too fragmented, there
19 were too many opportunities for things to drop
20 in the crack, but the issue was, it was not
21 independent. I found that it was sufficiently
22 independent of construction pressures, it was
23 part of the construction, part of the
24 engineering, and part of the operations
25 organizations. That's not prohibited by

Kelly

1 regulation. I didn't like that way of doing
2 business, but Bechtel ran their whole show
3 that way and still does. The Navy program, I
4 was used to General Dynamics way of doing
5 business. Newport News did it precisely the
6 way TVA did it. Inspection force is a part of
7 the construction organization.

8 So, I looked at it, they reported
9 that that's the way it was, they were covering
10 the essential elements of the program. If I
11 was to write down my opinions of it or have
12 them written down, I would have written down
13 that what's there is adequate, but it could be
14 improved substantially.

15 And, in fact, when -- the first
16 action down there when I took the line
17 position was to reorganize it. Pull it
18 together and eliminate these opportunities for
19 errors.

20 BY MR. WILLIAMSON:

21 Q. So, would you characterize the Lundin
22 review as an in-depth review?

23 A. No.

24 Q. You will not?

25 A. It was a cursory review.

[Handwritten signature]

1 MR. REINHART: Was that Lundin
2 review or effort ever intended to be a
3 cornerstone for decision making on TVA's
4 plant?

5 THE WITNESS: No. Not intended to
6 be a cornerstone. It was intended to be a
7 help.

8 MR. REINHART: In Mr. White's letter
9 dated, I believe it was June 5th, he referred
10 to that report in a way that apparently he
11 made it appear to be a cornerstone.

12 THE WITNESS: If I may, let me take
13 a chance to read this memo, since we are
14 talking a lot about it.

15 MR. REINHART: Sure.

16 MR. WILLIAMSON: Maybe we can take a
17 five minute break, if you like.

18 MR. MURPHY: Now 11:23 and we are
19 going off the record.

20 (Recess is called.)

21 (Resumed.)

22 MR. MURPHY: It's 11:40 and we are
23 back on the record.

24 BY MR. REINHART:

25 Q. We were talking about the effort and the

1 letter written by Mr. Lundin. Was that to be
2 a decision making cornerstone. I believe you
3 answered, no, that wasn't the intent. Then my
4 question was, in this June 5th letter that Mr.
5 White set down in the fourth paragraph, he
6 says, in reference to the January 3rd letter,
7 which raised the issue of Appendix B from the
8 commission to TVA, Mr. White says, in order to
9 respond to that specific request I assembled a
10 group of outside individuals with significant
11 and extensive nuclear QA experience in the
12 areas questioned and directed them to conduct
13 a review to each one of the perceptions.

14 In a number of interviews it's been
15 pointed out that this reference was to the
16 Lundin effort. And our question is, was that
17 the intent of the Lundin effort, to be used in
18 this manner?

19 A. Not when we started it. We started it
20 primarily to calibrate the information, to see
21 if it was valid, and the Lundin report or
22 letter is couched in those terms, what they
23 did and that they found things in process and
24 they did not find any problems. It was a very
25 vital link in making the determination that

JK

Kelly

1 what we had was valid. We could not have
2 accepted the line organization's input as
3 being totally reliable without testing it.
4 So, it was a vital test, but I didn't intend
5 it as a cornerstone for general responses.
6 I'm not sure that what you are reading is
7 necessarily at odds with that, either. It was
8 done. It was vital.

9 Q. Did Mr. White assemble this group in
10 order to respond to that specific request?

11 A. Which request are you talking about?

12 Q. In the context of the letter he says,
13 referring to the January 3rd letter, and he
14 says, in order to respond to that specific
15 request I assembled a group of outside
16 individuals, et cetera.

17 A. Yes. That was their assignment, to take
18 the eleven issues that were in the attachment
19 to the January 3rd letter and review them.
20 That was their focus. That's what they looked
21 at.

22 Q. So, are we saying, then, it was intended
23 to be a decision making -- see, before you
24 told us it was just for your calibration. Now
25 we are saying it or for something else. I'm

1 getting confused.

2 A. When I suggested it be done, I suggested
3 it be done for my calibration on it. Once it
4 was done it was used for a number of
5 purposes. I have no problem with using it for
6 other than what it was originally initiated
7 for. I recommended it be done by Larry Nace.
8 I presume he went and specifically discussed
9 it with Steve White, who ordered it done.
10 Steve had to authorize, bring my people in at
11 that time. It couldn't be done without his
12 specific approval. So, he did, in fact, order
13 it. It was focused on the Appendix B NSRS
14 eleven issues. And it resulted in this
15 particular letter for the record.

16 MR. MESERVE: May I just interject.
17 I'm a little bit confused as to -- I had
18 understood that the earlier questions from Mr.
19 Williamson referred to what is referred to as
20 the Nace memorandum. Whether that was a
21 calibration. I understand that your
22 questions, Mr. Reinhart, are now going to the
23 Lundin effort, which I think is different from
24 the Nace memorandum. I'm not sure that the
25 record is clear as to which of these efforts

1 Mr. Kelly now has been talking about in
2 response to your question.

3 MR. REINHART: My question was in
4 regard to the Lundin effort, not the Nace
5 effort, and specifically Mr. Kelly's statement
6 that his intent in having the Lundin effort
7 was to give himself a calibration.

8 THE WITNESS: That's correct.
9 Because I was providing comments and advice to
10 Steve White and company. Now, I couldn't
11 provide that analysis. I had no basis for
12 providing it. I didn't feel I could accept
13 the output from the TVA line organization
14 without the ability to form some judgment
15 whether that was valid or not. That's what
16 this effort was -- the Lundin effort was
17 geared at. The validity of the information
18 that I was getting.

19 BY MR. REINHART:

20 Q. Did the Lundin effort look at
21 implementation of Appendix B?

22 A. It looked at implementation practices
23 involved in those eleven issues, which are
24 part of Appendix B, but not all of Appendix B,
25 obviously.

JK

1 Q. When you say practices, do you mean that
2 they went out and did sort of a mini audit on
3 the administrative controls or how did they --

4 A. They did a survey, a surveillance, which
5 is not quite the same as a mini audit, not
6 quite the same as formal, but they
7 specifically looked at the implementing
8 procedures, the practices, if there were
9 inadequacies in the procedures. They looked
10 at what the actual practice being carried out
11 was, to see if the practice achieved a
12 reasonable set of controls over the activity.

13 Q. So, they went and watched people
14 performing activities in the field.

15 A. Where they found it necessary they did.
16 They looked at issuance of weld rod, because
17 that was one of the issues. In some other
18 areas, like the independence of QA, they -- it
19 was relatively simple and cursory.

20 Q. Did the practices conform with the
21 procedures?

22 A. Generally speaking.

23 Q. What about specifically?

24 A. There were some things that they
25 probably found that were at variance with some

SK

1 of the procedures, but they did not find
2 anything they felt had not been identified or
3 adequately flagged for correction. Where they
4 found something at variance with a specific
5 procedure they identified that to the line
6 organization at that time for correction.
7 They did not write a non-conformance on it.

8 Q. So, basically, they didn't document any
9 of those?

10 A. That's correct.

11 Q. That they found.

12 A. They had field notes, as they went
13 through, but all I wanted in the record was a
14 summary of that information.

15 Q. May I look at that summary, please? In
16 reviewing this it looks like there is a couple
17 of -- I think the word you used earlier was
18 vague or -- what was the adjective you used to
19 describe it?

20 A. Bland.

21 Q. Bland, good. There is a couple bland
22 paragraphs about scope. Maybe a bland
23 paragraph about generally what was going on,
24 but the final sentence is interesting.

25 A. I'd like to interject, I think I'll

1 withdraw the comment regarding bland. I have
2 now read that letter and it its sharply
3 focused and precise. It is exactly what I
4 intended, so withdraw bland.

5 Q. What did you intend?

6 A. To put in the record what the effort
7 done by Lundin is or was. Lundin and the six
8 people I sent out there.

9 Q. It's not very specific.

10 A. It is very specific as to what they
11 looked at and the types of things they found.
12 It may not provide a detailed nut and bolt
13 commentary on everything they saw, but that's
14 not what I was looking for.

15 Q. The final sentence comes out and says,
16 no activities were noted, no information
17 received which could be considered a
18 non-compliance with the 10 CFR 50, Appendix B,
19 so it seems to me like it backs up, but never
20 really addresses the issue. The question was,
21 is Watts Bar in compliance. This doesn't
22 really say they are in compliance. They went
23 out and said, we looked for a week and we
24 didn't find anything that was in
25 non-compliance.

1 A. Right.

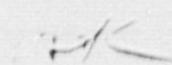
2 Q. But, it wasn't an exhaustive effort to
3 say it was in compliance?

4 A. That's right.

5 Q. So, if it wasn't an exhaustive effort to
6 say it was in compliance, how could it be used
7 as a major decision making step in the June
8 5th letter, which responded to the January 3rd
9 letter, which asked if they were in
10 compliance?

11 A. If you look at our March the 20th
12 letter, it is focused on the eleven issues.
13 That's what we were responding to, and we are
14 saying that we are not in non-compliance in
15 those areas. The specific ones looked at. It
16 was -- we tried to focus that letter on those
17 issues, because that's what was -- that's what
18 the commission asked us to look at.

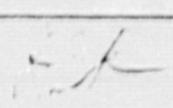
19 Now, they asked two questions in the
20 January 3rd letter, which complicated the
21 response to that January 3rd letter
22 considerably. Two things asked for. One is a
23 response, corporate position in six or eight
24 days, as to compliance with Appendix B. The
25 second question is, and I don't recall the



1 specific word, but it was describe the
2 activities and corrective, preventive actions
3 associated with these eleven issues, implying
4 not a statement of current compliance with
5 Appendix B, but a dissertation on the
6 historical performance of TVA.

7 Those two issues mixed together make
8 a definitive statement on anything very
9 difficult to compose. You can answer one or
10 both, but you mix them together and if you
11 want a sweeping statement, it's very difficult
12 to know how much testing you have to do, so we
13 responded to the eleven issues currently, what
14 we saw on March the 20th as to compliance with
15 Appendix B, and I tried to identify the
16 preventive, corrective actions around each of
17 those eleven issues.

18 In many of those issues there were
19 significant problems that were validly
20 identified, required a lot of work on the part
21 of TVA, and were being worked on. Some of
22 them are still being worked on. There is no
23 attempt to say that we do not have significant
24 problems. We did have problems. We found
25 lots of problems. We only found that the



1 problems were identified and were being worked
2 on and it looked like the preventive action
3 was properly scoped to resolve the issue.

4 Q. So --

5 A. That is what we meant by compliance to
6 Appendix B. Not that we did not find any
7 problems, because we found oodles of
8 problems. We found things that had stop work
9 issued against them validly and were still
10 stopped on March the 20th.

11 Q. Well, so, in answer to the question, was
12 TVA in compliance with Appendix B on March
13 20th, what would be your answer?

14 A. My answer was that they were, as best I
15 could determine, in compliance with Appendix
16 B.

17 Q. Why didn't the letter just come out and
18 say that?

19 A. Several of the versions of the letter
20 along the way did say that. Each one -- as I
21 said, many people reviewed that letter and
22 rewrote it and commented on it. The versions,
23 the original drafts prepared by Lundin and at
24 least one or more subsequent ones that I
25 worked on with Houston, said that precisely.