

# UNITED STATES NUCLEAR REGULATORY COMMISSION

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IN THE MATTER OF:

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INVESTIGATIVE INTERVIEW

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SWORN STATEMENT

of

IAN BARNES

July 25, 1986

NRC Region IV Headquarters

Arlington, Texas

10:40 a.m., C.D.T.

TAKEN BY: George Mulley

REPORTED BY: Trish Sims



1                    MORNING SESSION

2                    July 25, 1986

3  
4        Thereupon,

5                    IAN BARNES,

6        took the stand and, having been first duly cautioned  
7        and sworn, testified upon his oath as follows:

8  
9                    EXAMINATION

10        BY MR. MULLEY:

11                Q.     The time is 10:40 a.m. on July the 25th,  
12        1986. We're at the Region IV headquarters NRC in  
13        Arlington, Texas.

14                Present is Mr. Ian Barnes, a Region IV  
15        employee, myself George Mulley, assistant director  
16        from investigation office of Investigating Auditor  
17        of NRC, Steve Goldberg who is a technical advisor  
18        detailed to the office of Inspecting Auditor NRC,  
19        and the court reporter Trish Sims.

20                We're here today to discuss with  
21        Mr. Barnes his involvement with several inspections  
22        done by Region IV Comanche Peak Nuclear Power Plant  
23        and to obtain some information from Mr. Barnes  
24        concerning Region IV's regulation of the Comanche  
25        Peak project.

1 Before we begin, can you give us a brief  
2 resume of your background here at Region IV?

3 A. I joined the NRC in Region IV on November  
4 the 3rd, 1975. I was hired as a contractor  
5 inspector in the vendor inspection branch as it was  
6 called in those days.

7 From the time period that I joined the NRC  
8 up till July, 1980, I performed primarily  
9 inspections per the Manual Chapter 2700 program of  
10 various and assorted contractors, primarily in the  
11 arenas of fabrication of piping subassemblies,  
12 vessel manufacture, valve manufacture, pump  
13 manufacture, various diverse mechanical components.

14 In July of 1980, I was made section chief  
15 of what was called Component Section II. Actually  
16 it was the section I was inspecting.

17 In early '81, I inherited the other  
18 component section. They integrated both sections  
19 under my supervision. At that time period, I had  
20 about eleven or twelve inspectors assigned to me as  
21 section chief.

22 That kind of staffing remained until, I  
23 believe, probably late '83. I'm not quite sure. In  
24 the time period that I was a section chief in the  
25 vendor branch, the work load and various

1 manufacturing facilities were starting to decline  
2 because of the absence of new orders.

3 We started to change the thrust of the  
4 program in terms of my personal responsibilities to  
5 what we called reactive inspection. The thrust of  
6 this was to look at notifications to the Commission  
7 per 50.55(e) or Part 21 and to respond to  
8 allegations if they came up involving contractors  
9 and to try and assess why did these things happen,  
10 make sure that all potentially affected utilities  
11 had been appropriately informed.

12 So, we were reacting to a stimulus, a known  
13 deficient condition; and we were utilizing that  
14 trying to assess from a quality assurance and  
15 technical aspect what was the scenario and what were  
16 the contributing factors.

17 In June of '84, the vendor program branch  
18 was transferred to the office of Inspection and  
19 Enforcement; and I did not want to move to  
20 Washington for personal reasons.

21 I was offered a position in the region as a  
22 reactor inspector, which I accepted. My assignment  
23 in the region since that time period, I went to Wolf  
24 Creek on completion of the program inspection  
25 efforts there. I performed after that inspections



1 at River Bend and completion of the construction  
2 program there, primarily in the arena of the  
3 construction appraisal team, follow up and just some  
4 of the IE program modules.

5 Additionally, I was assigned the primary  
6 responsibility for inspecting the activity at Cooper  
7 Station relative to recirculation piping  
8 replacement.

9 In June, '85, I was informed that I had  
10 been assigned to the Region IV Comanche Peak group  
11 which was currently being performed. I was told  
12 that I would act as a group leader. That is an  
13 unofficial position. It is not defined anywhere.

14 One would have to ask management why they  
15 assigned me that function, but I believe it was  
16 primarily because they knew my performance in the  
17 vendor branch and reactor inspection and that I was  
18 used to dealing with multi-disciplined personnel and  
19 it was perceived that I had done a very credible  
20 job.

21 I remained in that position at Comanche  
22 Peak till, I guess it was, May when they announced  
23 that they selected me as the Comanche Peak group  
24 chief. It was not actually in process until  
25 sometime in June. That's where I am now.

1 Q. So, from June of '85 until currently,  
2 you've had some or a lot of involvement with  
3 Comanche Peak?

4 A. I have been at Comanche Peak virtually  
5 every week since sometime in July of '85.

6 Q. What I'd like to do, then, is to go over  
7 several recent inspection reports that were done at  
8 Comanche Peak in which there's been some differences  
9 between the inspector and what he felt should be in  
10 the inspection reports, how his inspection findings  
11 should be documented versus Region IV management's  
12 opinion as to how his inspection findings should be  
13 documented and ask if you can recall some of these  
14 issues and ask if you have any involvement or any  
15 knowledge concerning how these issues were resolved.

16 I'd like to have Steve go through them one  
17 at a time; and we can go from there, understanding  
18 that --

19 A. If I may say something before Steve and  
20 yourself start, I had no knowledge of what questions  
21 for sure you would be asking me.

22 I want it on the record that I'm speaking  
23 purely from recollection. I have had no opportunity  
24 to do any kind of research to try and refresh my  
25 memory.

1 Q. That's understood.

2 Q. (By Mr. Goldberg) That's understood. The  
3 first inspection report that we're going to focus on  
4 is 85-07-05. The period of inspection that was done  
5 by Mr. Phillips is during the period April 1st,  
6 1985, through June 21, 1985.

7 I'm going to go down the issues. As I  
8 understand in discussion -- we've had discussions  
9 over the last few weeks.

10 The first one involves the reactor vessel;  
11 and, specifically, we're going to go into two  
12 specific issues. The first one is the instruction  
13 that was written for the installation design  
14 criteria.

15 There were some question about the  
16 construction operation traveler and changes that  
17 were made, if those changes were or were not  
18 included in the installation spec, as well as  
19 questions about the the clearance between the  
20 reactor vessel support bracket and the support shoes  
21 were not within the ranges stated within the  
22 instruction operation traveler and the condition was  
23 not reported as a non-conformance report.

24 Are you familiar with that issue?

25 A. Not very. Let me say this on that



1 particular report: I was asked by Tom Westerman to  
2 review it and make any technical comments. I have.  
3 I reviewed that report.

4 I performed what I would call a limited  
5 review. The reason I did that was I was not a  
6 supervisor. We're talking about a report that was  
7 already in existence.

8 I was a retained Grade 15, and I did not  
9 feel very comfortable about reviewing reports that  
10 involved other Region IV management inspectors.

11 I performed a limited review. Those  
12 subjects that stood out clearly to me as being  
13 questionable, I identified to Tom Westerman.

14 Q. (By Mr. Mulley) When did he ask you to to  
15 this review?

16 A. I don't really recall the day, George. It  
17 was somewhere about the time that we were moving on  
18 site. A group of reports were actually physically  
19 handed to me by ( ) the former division  
20 director here. That was one of them. I don't  
21 recall the exact time frame.

22 Q. When you say the report was already in  
23 existence, you mean that the report had been signed  
24 out and finalized?

25 A. From memory, I don't think the report was

1 signed when I saw it.

2 Q. So, it was still in 'raft form?

3 A. Again, I'm not too sure.

4 Q. (By Mr. Goldberg) I'm going to go ahead  
5 with the issues. At this point you don't have  
6 anything specific to tell us on that particular  
7 report?

8 A. All I'll say about that particular issue, I  
9 do remember Tom discussing it with me. I looked at  
10 it from a purely technical prospective, knowing that  
11 the reactor vessel installation is a rather limited  
12 activity. In that particular plant, there are two  
13 vessels. I personally didn't see any need to write  
14 a formal procedure assuming that all of the NSSS  
15 guidance had been incorporated in that instruction.

16 Q. Okay. Let's go to the next one. It  
17 relates to the reactor vessel. It says there is no  
18 evidence that TUGCO had audited either Unit II  
19 reactor vessel installation specification, placement  
20 procedures, actual hardware placement, or as-built  
21 records.

22 The a question here is the scope of the  
23 audit program. What about that one, Mr. Barnes?

24 A. I don't know of any regulatory requirement  
25 that would specifically require a utility to audit a

1       discreet activity like that.

2           Q.     Had you had any exposure to the audit plan  
3       of TUGCO? Did you have any opportunity to review  
4       their audit plan?

5           A.     No, I did not.

6           Q.     At this time, do you feel their audit plan  
7       is in compliance?

8           A.     If I haven't reviewed the audit plan, I  
9       obviously have no opinion.

10          Q.     We understood that you had some input into  
11       the audits themselves?

12          A.     We're talking about a much later time  
13       frame.

14          Q.     That's why I'm asking today. That was the  
15       question, today, as of today.

16          A.     You're asking a question?

17          Q.     As of today.

18          A.     My involvement regards audits was a later  
19       report to, do with a Brown & Root audit of their site  
20       activities, Brown & Root audits.

21          Q.     Not TUGCO audits?

22          A.     No.

23          Q.     The next issue involves ASME Section 3,  
24       1974 edition, spool piece 3-Q-1, drawing number  
25       BRP-CS-2-RB-76.



1           This spool piece had neither been marked  
2           with the material specifications ingrained nor heat  
3           number nor heat code of the material. The inspector  
4           made the finding in June of '85; but in August, the  
5           applicant found the identification number on the  
6           spool piece. The inspector rechecked the spool  
7           piece and found the number.

8           Now, I believe that issue was a section of  
9           the inspection report where there's an issue on  
10          spool pieces. Why don't I let you comment on that.

11          Do you remember that issue at all?

12          A. I remember it, yes. I remember informing  
13          Mr. Westerman that I thought the inspector was in  
14          error.

15          The reason I gave Mr. Westerman that  
16          information was based on a large part on my prior  
17          inspections of nuclear pipe fabricators which I  
18          inspected all of them when I was member of the  
19          vendor branch and also my prior working in the  
20          industry with the Babcock and Wilcox Company.

21          My knowledge of the code, there was no  
22          requirement at that point in time to maintain those  
23          specific numbers on a piping assembly. As I recall,  
24          there was a mark number identified on the spool in  
25          question.

1 Well, if one knows anything about the way  
2 piping fabricators and architect engineers do  
3 business, that mark number in itself provides total  
4 traceability.

5 The mark number is assigned by the  
6 purchaser to the fabricator. There's a code data  
7 report that reflects that mark number. There's an  
8 inspection sketch that shows the identity of each  
9 and every piece. That subassembly -- prior to  
10 shipment, that documentation has been reviewed and  
11 approved by an independent third party, i.e., the  
12 authorized nuclear inspector.

13 My reading of the ASME code does not  
14 indicate that one has to, ad nauseum, maintain heat  
15 numbers stamped on the item, and that is why I told  
16 Mr. Westerman that I believe the inspector in  
17 question was in error.

18 Q. According to the earlier draft -- I just  
19 want to review this one more time -- it says here in  
20 respect to material requiring a CMTR, which is  
21 certified material test report, "NA-3766 requires  
22 marking with the applicable spec and graded material  
23 and heat number or heat code. When material is  
24 divided, identification mark is required to be  
25 transferred to all pieces."

1           A.    I would respond to that by saying you are  
2           quoting from an ASME code arena that pertains to  
3           material manufacturers and material suppliers.  
4           We're not talking about material. We're talking  
5           about a piping sub-assembly where the rules that  
6           apply would be the rules of NCA 4000.

7           Q.    So, in your opinion, the traceability could  
8           be maintained in the plant by simply knowing the  
9           spool? I guess what was left on the spool piece  
10          was a marking.

11          A.    A mark number.

12          Q.    A mark.

13          A.    In my opinion, traceability was  
14          maintained -- not could be maintained, was.

15          Q.    In other words, if that spool piece is  
16          changed out and needs to be reordered, it can be  
17          done and the pedigree would be found?

18          A.    There would be no problem.

19          Q.    Okay. Go to the next issue. This is a  
20          long one. I'm going to read it to you. I think it  
21          requires to be read to you. Your name keeps coming  
22          up as an important source of information on this  
23          one.

24                Its called Loop 3 reactor core and  
25          collate. I'm going to read you the whole thing. I



1 think it's helpful to do that. It would help in  
2 maybe recalling what you did.

3 "Requirements for this item are stated that  
4 in the ASME Section 3, 1974 edition through summer  
5 of 1974 addendum --

6 (Discussion off the record.)

7 Q. This is for the record, exactly. I'll give  
8 it to you if you want to reread it. I think it's  
9 hard to track when you answer without knowing what  
10 the issue is.

11 "This piping subassembly consists of  
12 27.5 inch cast pipe with a 22-degree elbow on the  
13 reactor end, a 10 inch 45-degree nozzle, a 3 inch  
14 nozzle, and three 2 and a half inch thermowell  
15 installation bosses. The following records were  
16 reviewed for the subassembly."

17 I'm going to drop down to No. 3. "The code  
18 NPP-1 says that no hydrostatic test has been  
19 performed. In discussions with Westinghouse and  
20 Brown & Root personnel, the statement was made that  
21 it is normal practice to defer the partial hydrotest  
22 until whole system is hydrotested. B&R requirements  
23 CP-QAB-12.1 and CP-QAP-12.2 describe requirements  
24 for the test."

25 I'm going to drop all the way down. I'm

1 not going to read everything. "The above items are  
2 unresolved pending clarification of the code  
3 requirements by headquarters."

4 That's the key point.

5 MR. MULLEY: Why don't you let  
6 him look at it.

7 (Discussion off the record.)

8 A. You want me to respond to that?

9 Q. (By Mr. Goldberg) Yes.

10 A. With regard to what you've just asked me, I  
11 again considered the inspector was in error, that he  
12 did not understand the ASME code.

13 I felt there was no need to go to NRC  
14 headquarters. I was conversant with the subject. I  
15 believe I understood the code. It's been  
16 subsequently verified that my understanding of the  
17 ASME code was correct.

18 I have pulled out some documents out of the  
19 '74 edition. I didn't have the time to go research  
20 it again, but I can assure you the code in 1974 and  
21 the code in 1983 are identical in terms of basic  
22 requirements. The text has dramatically changed  
23 over the years, but they're identical.

24 The inspector I believe -- and this is  
25 surmisal -- I believe that the inspector got

1 somewhat confused about the terminology in the code  
2 talking about the testing of components prior to  
3 installation and that since there was no hydrotest  
4 done a piping subassembly, he felt there was some  
5 potential violation of Section 3 of the ASME code.

6 What I believe that he failed to grasp is a  
7 pipe subassembly is not a component as defined by  
8 Section 3 of the ASME code. A piping system is a  
9 component. It is a rather unique arena. This is  
10 the only one I can readily or the only one I can  
11 think of -- never mind readily -- when, in fact, you  
12 do not have a component, per se, until it is --  
13 until there's a piping system.

14 In other words, you cannot test the thing  
15 as a component until it's built. The reason I had  
16 this position is this: From the '74 code, I'm going  
17 to hand you some documents.

18 The first document I'm going to ask you to  
19 read Section NA-1210, and I think you'll see there  
20 that the example of a component includes piping  
21 systems.

22 MR. MULLEY: I'll read for the  
23 record the first sentence of the document.  
24 This is from NA-1210, Components, "The  
25 components of a nuclear power plant include



1 items such as vessels, piping systems,  
2 pumps, valves and storage tanks."

3 What I would like to do is mark this  
4 document, which page four from NA-1140, as  
5 Exhibit 1.

6 (Exhibit No. 1 was marked for  
7 identification and is attached hereto.)

8 A. The second document I'm going to hand you  
9 is the same code section, NA-1232, entitled "Piping  
10 Subassemblies," which defines a subassembly as a  
11 section of a piping system.

12 MR. MULLEY: For the record, I  
13 will read Section NA-1232, Piping  
14 Subassemblies, "Piping subassemblies are  
15 defined as sections of a piping system  
16 consisting of fittings and pipes or tubes  
17 which are fabricated as subassemblies in a  
18 shop or in the field before they are  
19 installed in a nuclear power system."

20 I'm going to mark this document as  
21 Exhibit 2.

22 (Exhibit No. 2 was marked for  
23 identification and is attached hereto.)

24 A. The third document I'm going to hand you, I  
25 want you to look at two references on the page. The

1 first one is Section NB-6111.1, Subparagraph (a).  
2 The second reference on that page is Section NB-6114  
3 pertaining to time of hydrostatic tests of the  
4 parts, piping subassemblies.

5 My interpretation of that document shows  
6 that ASME code requires that all pressure bound  
7 components be hydrostatically tested.

8 Secondly, it states that components serve  
9 as tests for piping subassemblies, which to me  
10 clearly indicates recognition by the ASME code that  
11 a piping system is the component and the subassembly  
12 is just a section of the component.

13 MR. MULLEY: I'll read for the  
14 record Section NB-6111.1, Hydrostatic  
15 Testing, "All components and appurtenances  
16 constructed under the rules of this  
17 subsection shall be hydrostatically tested  
18 in the presence of the inspector."

19 In the sectioning NB-6114, "The  
20 component or appurtenance hydrostatic test  
21 when conducted in accordance with the  
22 requirements of NB-6221(a) shall be  
23 acceptable as a test for parts and piping  
24 subassemblies."

25 This document I will mark as

1 Exhibit 3.

2 (Exhibit No. 3 was marked for  
3 identification and is attached hereto.)

4 A. The fourth documents I'm going to hand  
5 you -- by the way, I should have said earlier what  
6 "NB" represents. The acronym "NB" denotes a Class I  
7 component of Section 3. It's the most critical  
8 component. I'll go on.

9 The fourth document I hand you, there's two  
10 areas that I would wish people to look at. Section  
11 NB-6221(a) requires completed components to be  
12 subjected to hydrostatic test at a pressure not less  
13 than 1.25 times the system design pressure prior to  
14 installation in the system.

15 This is what I believe the inspector in  
16 question was led and said they didn't test, failing  
17 to recognize there wasn't a component to test prior  
18 to installation.

19 The second and rather important reference  
20 is NB-6221(c) permits the system hydrostatic tests  
21 to be substituted for a component hydrostatic test  
22 if provided that certain things can be done, meaning  
23 if you do that, you've got to be able to do a repair  
24 weld on the system if it proves necessary. You've  
25 got to be able to do post-weld heat treatment of



1 that repair, or whatever, if deemed necessary.  
2 You've got to be able to non-destructively examine  
3 and also got to test after any repairs.

4 MR. MULLEY: Okay. For the  
5 record I will read Section NB-6221(a).  
6 I'll read the highlighted portion,  
7 "Completed components shall be subject to a  
8 hydrostatic test at a pressure not less  
9 than 1.25 times the system design pressure  
10 prior to installation in the system."

11 I'll read (c), "The system hydrostatic  
12 test of NB-6221(b) may be substituted for a  
13 component hydrostatic test of NB-6221(a),  
14 provided." Underneath is listed the  
15 various requirements to have to be complied  
16 with. I'll mark this document as  
17 Exhibit 4.

18 (Exhibit No. 4 was marked for  
19 identification and is attached hereto.)

20 A. I'd like to make one other comment. One of  
21 the things I recall that disturbed me a little bit  
22 at the time was the text was written in a fashion  
23 that you could not ascertain why this hydrostatic  
24 test was not done, other than to say, "Hey, it's  
25 required."

1 In my judgment, an inspection report should  
2 have referenced the inspector's knowledge of the  
3 procurement document. The procurement specification  
4 itself waived this hydrostatic test requirement on  
5 the subassemblies. That didn't come out.

6 I felt that it was inappropriate and should  
7 have been referenced that we're not talking about  
8 some possible omission of a contractual requirement  
9 or code requirement. It was a clear, up front, "We  
10 do not require you to test the subassemblies."

11 That should have been in there.

12 Q. (By Mr. Goldberg) I understood, though,  
13 notwithstanding your point, the issue did go to NRC  
14 headquarters.

15 Can you explain what happened then?

16 A. As best as I can. I personally did not  
17 speak to the inspector in question with regards to  
18 Mr. Westerman.

19 At some point after I had given this advice  
20 to Mr. Westerman and it became apparent that the  
21 inspector was dissatisfied, there was a meeting in  
22 this office with the inspector, ) Present  
23 were Mr. Eric Johnson, I believe Mr. Hale, and  
24 ,) Mr. Westerman and myself.

25 The inspector did not seem to want to grasp

1 what I was trying to tell him. I forget the exact  
2 words that were said. I believe that meeting may  
3 have been documented in some fashion, but I don't  
4 think I ever saw any records of that.

5 During that meeting, I recommended to the  
6 group that if anyone had any reason to question my  
7 knowledge or were not assured of the accuracy of my  
8 statements, the appropriate party in my judgment to  
9 communicate with was Robert J. Boznick, branch chief  
10 of mechanical engineering, branch NRR.

11 The reason I recommended Mr. Boznick was  
12 that I was well conversant that he was NRC's  
13 representative on the main committee of Section 3 of  
14 the ASME code, and I felt he was the most qualified,  
15 knowledgeable person to give as an individual.

16 No one can speak for the ASME code, per  
17 se. He was an experienced person. He could give an  
18 independent evaluation. I agreed to  
19 contact Mr. Boznick.

20 To my knowledge, he never contacted him.  
21 Later on -- I don't know how many weeks -- I and  
22 Tom -- I forget who initiated it -- "Would it help  
23 you if I were on site to talk to  
24 Mr. Boznick?"

25 I contact Mr. Boznick. I told him what the



1 inspector's concerns were and asked would he speak  
2 to him. He said yes. was put on the  
3 phone with Mr. Boznick. I left the room. I do not  
4 know the exact conversation, but I believe I was  
5 told that Mr. Boznick had indicated to the inspector  
6 that there was no code requirement to test a piping  
7 subassembly.

8 So, since I wasn't present, that's what I  
9 was told I believe from That's about  
10 all I can tell you about Mr. Boznick.

11 Q. One last question. Going back to the write  
12 up that was in the original draft report, there's a  
13 statement made here. I just want to make sure I  
14 understand your point here.

15 It says, "It's not evident that the system  
16 test substitution was permitted for pipe subassembly  
17 since NA-1200 make a distinction in the definition  
18 between component and piping subassemblies."

19 I guess I need to get your comment on that  
20 statement.

21 A. I'll have to read it first because I think  
22 I already answered that question.

23 Q. You might have, but just for the record I  
24 would like you to repeat it.

25 A. For the record, NA-1200 clearly makes a

1 distinction; and that is why I took the posture that  
2 there was no need under code requirements to perform  
3 a hydrostatic test on a piping subassembly. Yes, I  
4 agree, there is a distinction between them; and that  
5 distinction is the pivotal key to understanding the  
6 subject.

7 Q. That's all I wanted to do.

8 Q. (By Mr. Mulley) To the best of your  
9 knowledge, did Mr. Westerman show the documents that  
10 we've marked as Exhibits 1 through 4 to  
11 Mr. Phillips?

12 A. I was not present in any discussions with  
13 Mr. Phillips. So, I cannot comment on that. I do  
14 not know what Mr. Westerman showed to Mr. Phillips.

15 Q. Okay.

16 A. I don't know if he showed him any  
17 documents.

18 Q. (By Mr. Goldberg) okay. The last issue on  
19 that report that we're looking at involves the  
20 concrete mixer blades, and I'll just quickly  
21 summarize it and see if you have any knowledge or  
22 want to add to it. "A violation was written as a  
23 result of applicant's failure to provide record  
24 evidence that the concrete mixing blades had been  
25 inspected quarterly since 1977; and what turned out

1 to be violation was maintained, but there was no  
2 letter asking the licensee for corrective action."

3 Do you have any comment you want to make on  
4 that one?

5 A. I would not have any professional  
6 disagreement with that approach in that the blades  
7 were established to show no wear, that there was  
8 concrete testing throughout the life of the batch  
9 plant. There was no problems. If we're talking  
10 about historically, then, I have no professional  
11 reservations about what Mr. Westerman recommended in  
12 instituting.

13 Q. Going to the next inspection report which  
14 involves records and the weld rod issue. It's  
15 85-14-16. Let me just get my folder.

16 It may be that your major involvement in  
17 this was the last issue. That's why I'm going to go  
18 through it fairly quick. Maybe you have other  
19 things you want to add.

20 The first issue involves the requirement  
21 for record storage in 45.29 in the FSAR an QA  
22 manual.

23 Do you have any comment on that one?

24 A. I only had moderate involvement in that  
25 particular subject in that I relied quite heavily on



1 Mr. Hale's input on that. He was my QA/QC leader.  
2 He was the deputy QA/QC leader of TRT.

3 I was aware of what SSER 11 stated. Again,  
4 I had moderate involvement. I did believe in  
5 reading the report, I thought that the way it was  
6 structured, in my judgment at least, was not  
7 consistent with the guidance given by Manual  
8 Chapter 0610.

9 I did not think it was appropriate, what I  
10 considered an iteration of basically the same  
11 information; and I felt it was creating an  
12 impression or could create an impression in an  
13 uninvolved and unbiased reader that the scenario  
14 seemed to be far worse than reality indicated.

15 Q. From what I understand, Mr. Hale was your  
16 key person.

17 A. I relied heavily on Mr. Hale's judgment,  
18 yes.

19 Q. These issues -- I'm just going to quickly  
20 tick them off -- are issues on Stone & Webster's  
21 records in terms of its storage and shipment off  
22 site, CB&I records, the condition at the storage  
23 facility, the auditing of CB&I's records and the  
24 commingling of final records and in-process  
25 records. Those are a number of issues.

1           If you want to give me anything on any of  
2 those, you're welcome to.

3           A.    I would prefer that you ask me some  
4 specific questions.

5           Q.    I will do that. I'll give you the first  
6 one. I'll go step by step here. TUGCO failed to  
7 have or use procedures to control shipment of  
8 original records to Stone & Webster in New York.

9           A.    I believe that that scenario was adequately  
10 reflected in the issue report relative to the notice  
11 of violation showing that scenario.

12          Q.    Original design records shipped in  
13 cardboard boxes without making a back-up copy.

14          A.    As I recall -- first of all, I believe the  
15 citation addresses the core issue of this practice.  
16 I did not personally consider it prudent to ship  
17 sole source design documents off site. I don't  
18 think it prudent at all.

19                In fact, I was somewhat appalled that an  
20 organization would do that. I believe the citation  
21 addressed the basic core issue of what was the  
22 problem.

23                As regards cardboard boxes, I don't know  
24 whether records were shipped off site in cardboard  
25 boxes. I do recall they had conversations with QA

1 branch about this; and the best of my recollection,  
2 we were told there was no clear regulatory  
3 requirement.

4 Q. When say address the core issue, the core  
5 issue in your mind was the procedural issue as  
6 opposed to the 45.29 issue? Is that what you're  
7 saying?

8 A. I believe that's what I'm saying, yes.

9 Q. Okay. Next issue is failure to control and  
10 account for QA design records transferred from the  
11 site to Stone & Webster.

12 A. I think that is an iteration of the prior  
13 issue and I think was adequately addressed by the  
14 citation that was issued.

15 Q. The prior issue was the shipment in  
16 cardboard boxes.

17 A. I'm sorry. Two issues before. We're  
18 really talking about shipment of the sole source  
19 design records to Stone & Webster. I believe that  
20 we have already touched on that subject in another  
21 form.

22 Q. (By Mr. Mulley) With the notice of  
23 violation?

24 A. And the fact that we're talking about a  
25 variant of the same theme.



1           Q.     In other words, you feel that we're -- not  
2     we -- the inspector took one incident which we cited  
3     them with notice of violation and took that same  
4     incident and broke it up into component parts and  
5     then recited them?

6                     Do I have that correct?

7           A.     I believe you have it basically correct,  
8     George, the concern I had was were we really  
9     concisely, factually reporting things; or were we  
10    just making variations on the same subject? I do  
11    not think if you do that latter posture that it's  
12    consistent with the guidance I have been given by  
13    senior management of this region.

14                    I do not think it is consistent with IE  
15    manual chapter guidance. I don't think that's the  
16    way we do business.

17           Q.     (By Mr. Goldberg) If we get to  
18    practicality of the situation, the first issue in my  
19    mind talks about procedures and failure to follow  
20    procedures and have adequate procedures, and the  
21    next two issues involve practices.

22                    Is it conceivable that TUGCO could  
23    establish the procedure but still continue to ship  
24    out in cardboard boxes and not do the accountability  
25    correctly? There are three things that are

1 involved: Establishing an adequate procedure, the  
2 actual shipment, the preservation of the records  
3 that are in shipment, and accountability of the  
4 records.

5 Do you cover all three bases with the way  
6 the citation was written?

7 A. In my judgment, yes.

8 Q. I would expect there would be corrective  
9 action to address all of the ramifications of that  
10 particular scenario.

11 Q. Notwithstanding the fact you don't mention  
12 the other two issues in the citation?

13 A. I think we did.

14 Q. Unfortunately I don't have the final  
15 document. So, I don't know.

16 You're assuming that they did mention both  
17 of the other issues in the citation?

18 A. I believe the way the citation was  
19 structured addressed the issues. I learned somewhat  
20 to my chagrine when we got a response to that  
21 citation that all along that had been a procedure  
22 and they hadn't been complying with their own  
23 procedure.

24 I did not feel very happy about that  
25 particular facit of the response because it reflects

1 somewhat adversely on us and our inspection  
2 performance.

3 Q. Okay. Go on to the next set of issues  
4 which involves CG&I. Site records of Chicago  
5 Bridge & Iron were shipped to Houston in cardboard  
6 boxes, originals subject to little protection  
7 without retaining back-up copy at site.

8 A. Well, first of all, I'd like to say, it is  
9 like a rerun of the Stone & Webster scenario. The  
10 second point I'd like to make, we were informed by  
11 the utility -- Mr. Phillips was present -- we were  
12 informed by the site QC manager, Mr. Hale said that  
13 TUGCO had never taken possession at that time of  
14 those records and the reason the records were being  
15 shipped off site was for duplication prior to turn  
16 over to the owner.

17 That sounded like it was probably factual  
18 and that I would expect that to be a normal event,  
19 to duplicate records CB&I would expect to retain  
20 records for their own purposes and provide copies to  
21 the owner of the original records and copies for  
22 themselves.

23 That was never reflected in the inspection  
24 report.

25 Q. It gets back to who has control of the



1 records. You're saying they're CB&I's records at  
2 this point?

3 A. I have no reason to disbelieve other than  
4 that or believe other than that. It was never  
5 demonstrated to my satisfaction that TUGCO had ever  
6 taken possession of those records.

7 Q. There's words in Criterion I of Appendix B  
8 involving the retention of responsibility on the  
9 part of the utility.

10 In this area, do you think that the utility  
11 retained -- has any grounds to retain responsibility  
12 under Criterion I?

13 A. I would be highly surprised if any utility  
14 in this country acted in that accord. If you hire a  
15 major contractor to do a specific work activity, and  
16 you give him virtual total responsibility to  
17 accomplish that task, I do not think the utility is  
18 required by anything to be officially in charge of  
19 that contractor's records. When the task is  
20 completed, they have to turn over contractually  
21 required records.

22 It's my understanding in this particular  
23 case that for whatever reason they had not  
24 officially turned them over and were in the process.

25 Q. I understand that the records were

1 associated with the containment liner.

2 A. Correct.

3 Q. And the consequence of loss of these  
4 records would be rather significant?

5 A. I would imagine the utility would have one  
6 heck of a problem to establish the containment of  
7 those liners if those records were lost.

8 Q. You think that the issue of retention of  
9 responsibility can be looked at a little more  
10 carefully in this area?

11 A. I think what we're talking about is  
12 prudence as opposed to regulation, prudence. If  
13 that plant prior to fuel load does not have an  
14 operating license from the NRC, we're talking about  
15 prudence of management.

16 We're not talking about anything also. It  
17 would be the utility's responsibility to come up  
18 with a position or to regenerate records if records  
19 were lost. I think it's purely a matter of  
20 determination of prudence.

21 Q. (By Mr. Mulley) CB&I in their involvement  
22 out at Comanche Peak -- I don't know if you know the  
23 answer to this or not -- did they operate under just  
24 one contract or did they have various contracts or  
25 various systems out there?

1           A.    I couldn't speak unequivocally on that,  
2           George. To my knowledge, CB&I was under one  
3           contract purely for the containment liner; but I may  
4           be wrong in that. I've never had reason to  
5           ascertain did they have other contracts.

6           Q.    The records under question right now are  
7           only records dealing with the containment liner?

8           A.    Uh-huh.

9           Q.    Okay. So, for example, the George  
10          Washington Bridge records, I don't know if CB&I was  
11          involved.

12          A.    I'm afraid I can't answer that. My  
13          involvement with Comanche Peak started in June,  
14          1985. I have no prior involvement.

15          Q.    (By Mr. Goldberg) Okay. Let me go on to  
16          the next issue. We got your point. It's fairly  
17          clear. TUGCO failed to inventory CB&I records sent  
18          to Houston and, therefore, cannot determine records  
19          that must be returned.

20          A.    I think we are talking about the chicken  
21          and egg syndrome. If TUGCO was correct in what the  
22          information they gave us, that they had not taken  
23          possession of the records, they couldn't very well  
24          be in a position to be performing an inventory.

25          A.    I'm going to go to the next group of issues



1 involving the condition of the storage facility.

2 There is one issue involving failure to  
3 preclude rain from entering the QA records vault  
4 over several years time. I guess it has to do with  
5 water leakage somewhere in the roof area in the  
6 ventilation duct and also related to slope of the  
7 floor and the ability for it to drain properly.

8 A. I considered a violation relative to rain  
9 entering the vault a highly subjective judgment. My  
10 reading of 45.29 showed me that the facilities have  
11 got to be constructed to protect contents from  
12 possible deterioration by a combination of extreme  
13 variations in temperature and humidity conditions.

14 The issue regarding the facility in  
15 question had to do with air conditioning. I find it  
16 rather stretching the point to say that any records  
17 had ever been subjected to an extreme combination of  
18 extreme variation of temperature and humidity.

19 I felt the inspector was somewhat out in  
20 left field.

21 Q. What about the matter of the roof not being  
22 repaired for a significant amount of time?

23 A. I personally didn't get into that. All I  
24 can remember is here that the utility had made  
25 various efforts over a period of time to fix this

1 roof; but I, personally, didn't get into the  
2 specifics on that or sloping floors.

3 Q. Next one is failure to preclude food from  
4 the copy parts of the QA records vault area.

5 A. If I had been the inspector in question on  
6 that particular subject -- certainly one shouldn't  
7 have food crumbs or whatever in a records area -- I  
8 would have informed the utility management to please  
9 correct the scenario.

10 I do not think a violation is appropriate  
11 for that particular scenario.

12 Q. The last record oriented issue is failure  
13 to provide temporary or permanent storage facilities  
14 for records, co-mingled with in-process records and  
15 the paper flow group.

16 As I understand it, records were taken from  
17 one part of the facility where there was storage,  
18 mechanical and electrical calculations, and brought  
19 back into the paper flow group.

20 A. That particular subject, I relied totally  
21 on Mr. Hale's judgment and the fact that the NRC had  
22 in a publicly issued document, SSER 11, basically  
23 addressed this scenario.

24 It was Mr. Hale's continued assertion or  
25 belief that there were no longer a record. A

1 document was re-issued to be be incorporated into  
2 another entity. It was no longer a record.

3 I relied totally on his position; and in  
4 terms of Mr. Westerman's actions, I would consider  
5 he exercised good judgment in that case. If one has  
6 NRC people internally in disagreement, it is not the  
7 time for writing violations. It is time to be  
8 getting information and further advice from  
9 headquarters, if warranted.

10 Q. You said public public forum, are you  
11 referring to SSER?

12 A. Yes.

13 Q. As I understand -- we talked to Mr. Hale  
14 yesterday -- circumstances involving that issue and  
15 the answer to that allegation was different than the  
16 one involving this issue. That was involving  
17 records -- I'm sorry -- documents.

18 We had a discussion on what was a record  
19 and what was a document, documents that had not made  
20 it to the records file, they were still in process.  
21 Where the issue was documents that became records  
22 that came back into the process position. So, they  
23 were different.

24 So, when you say public forum, why do you  
25 make that point when the issues were different?



1           A.     It was my recollection of SSER 11 that the  
2     subject was touched on. Perhaps my recollection is  
3     faulty. I would have to go back and reread SSER  
4     11.

5           Q:     The next issue involves weld rods. I guess  
6     there's a memo or something. I don't think I have  
7     it, but it has to do with a weld rod not identified  
8     at the main distribution or distribution station.

9                    Could you comment on that?

10          A.     I believe you are in possession of a memo I  
11     wrote which Mr. Westerman brought this to me, this  
12     particular subject. Again, I don't have a copy of  
13     that document I wrote; but as I recall in my review  
14     of that inspection report, I was reading the  
15     construction appendix and I noted that there was an  
16     unresolved item relative -- I should say a previous  
17     unresolved item which addressed applicant's action  
18     previous inspection findings which was being closed  
19     and a subject of weld rod control.

20                  In essence, Mr. Phillips said he was  
21     closing it because of the exhaustive review of this  
22     subject by TRT and also based on a current  
23     inspection in this arena which had found or had no  
24     findings, no violations or deviations.

25                  As I continued to read the report, I

1 finally came to the arena that ) I  
2 believe, had written that addressed the subject of  
3 weld material control.

4 To my chagrine, I found there was a  
5 violation indicated, which I couldn't understand  
6 what was going on in the same appendix of the  
7 report. I went next door to see Mr. Phillips.

8 My recollection of the conversation, I told  
9 him or I asked him how could he be closing out an  
10 unresolved item on weld rod control saying there was  
11 no findings and in his own appendix later on in the  
12 report was an indicated violation.

13 I said that was unacceptable and that  
14 either the unresolved item remained open if the  
15 inspector truly believed there was a violation or  
16 the unresolved item would remained closed and there  
17 would not be a violation.

18 Reading the text that ( ) had  
19 written did raise some questions in my mind in that  
20 he stated that they had not lost traceability.

21 I had not made a final determination. I  
22 said, "Plese discuss this with and reach  
23 an acceptable resolution of this matter."

24 Mr. Phillips informed me some days later  
25 that he had discussed this matter with

1 and they had decided to drop the violation. I told  
2 Mr. Phillips at that time that labels, vendor  
3 labels, on cannisters shouldn't be coming off and  
4 that I definitely wanted the subject followed up  
5 anyway.

6 So, I believe I wrote the actual words were  
7 put in the report about the referral to Brown & Root  
8 welding engineering to look into the matter. I then  
9 checked at the time the report was going out, or  
10 shortly thereafter, to confirm that he had, in fact,  
11 contacted Brown & Root's welding engineering.

12 Mr. Phillips answered in the affirmative.

13 Q. Why was this not continued as a violation?  
14 The technical issue was a violation identified as  
15 loose and missing labels on cannisters of Satvick  
16 electrodes. Was that condition corrected?

17 A. I haven't personally checked it.

18 Q. That seems to be the nub of the whole  
19 thing, was the condition at the plant.

20 A. Not the condition in the plant. You're  
21 talking about a condition that was at a weld rod  
22 issue station.

23 Q. Facility or whatever. What I'm questioning  
24 is what was the condition at the time and was it, in  
25 fact, a situation where there's still an issue



1 here.

2 A. I cannot tell you that. I responded to  
3 that. I believe I acted appropriately. I mean, one  
4 can look at things in a broader picture, true, about  
5 how a weld rod is issued.

6 I could maintain to you that it was  
7 virtually impossible for them ever to have  
8 effectively lost traceability.

9 The ASME code certainly requires control  
10 identity of weld material to the point of  
11 consumption, but weld issue stations at Comanche  
12 Peak do not issue cannisters of electrodes to  
13 welders.

14 It's my understanding of the procedure --  
15 and it's been quite awhile since I read it --  
16 welders are all issued portable rod ovens. They  
17 come to an issue station with the appropriate  
18 traveler type paperwork given to them by their  
19 supervisor.

20 The man that records the identity of the  
21 consummables is actually the issue clerk. The  
22 welder has nothing to do with that. They do not  
23 issue cannisters of electrodes. They follow normal  
24 industrial practice of issuing rods sufficient to  
25 weld up to a maximum of four hours, and that is a

1 return criteria.

2 The moment an issue clerk opens a cannister  
3 of electrodes, the balance goes into a rod oven with  
4 the identity of the electrodes.

5 I would further say that the only  
6 electrodes in that issue station are approved  
7 electrodes that have been released by Brown & Root  
8 welding engineering based on the vendor testing or  
9 their own testing. There is no unapproved.

10 It's a requirement of Section 2(c) of the  
11 ASME code of welding material that the coding on a  
12 stick electrode at least show electrode type.

13 So, I think from memory, ) was  
14 talking about some E-309 electrodes, rather rarely  
15 used electrodes. Be that as it may, the electrode  
16 would always be identifiable as an E-309 electrode.

17 The only thing that probably was not on the  
18 coding stenciled on was the lot number. It's not a  
19 mandatory requirement. Some companies actually put  
20 the lot number right on the coding.

21 I don't know for sure whether this company  
22 does it or doesn't. We are talking about a code  
23 requirement, maintenance of identity up to the point  
24 of consumption. That is the one potential area.

25 I'll say again, if one has a carton of

1 cannisters of electrodes and that carton is clearly  
2 identified as to lot number, type of electrode, the  
3 fact that a particular cannister in that carton has  
4 a label that is starting to come loose, the  
5 probabilities of losing traceability are very low.

6 Q. Rather than getting into the issue or  
7 debating the point of traceability -- this is an  
8 issue that's very debatable -- let me go back to a  
9 sentence.

10 It says here, "I told Shannon at that time  
11 I did not want the subject dropped and that the  
12 labels should not be coming loose from electrode  
13 cannisters. I recommended the matter be referred to  
14 Brown & Root welding engineering for follow-up."

15 The thing that strikes me here is that if  
16 we had issued a violation before we're expecting  
17 corrective action -- I don't understand the word  
18 follow up.

19 A. First of all, I did not make or make the  
20 decision that a violation should not be issued. It  
21 was my understanding from Mr. Phillips that  
22 conversations between himself and ) made  
23 that determination.

24 I did have a question about the validity of  
25 the violation. Our role here is not simply just to



1 issue violations. Our inspection role also is  
2 structured at getting inspected organizations to  
3 demonstrate compliance to regulatory requirements  
4 and commitments.

5 I believe I acted appropriately.

6 Q. Okay.

7 A. We're not hiding anything. I put it in the  
8 report, the referral. I'm not making some kind of  
9 private phone call and saying take care of this  
10 matter. I'm putting it in the report for the public  
11 record.

12 Q. The issue gets back to if corrective action  
13 was required previously by the utility. The  
14 question is: Did they fulfill completion of that  
15 corrective action? That's the only question I  
16 have.

17 A. I believe that as a senior resident  
18 inspector of construction, that's his  
19 responsibility. That's his appendix. That is his  
20 report. I believe, yes, we should follow up to  
21 verify corrective action has been taken; but that is  
22 his lead responsibility.

23 I mean, I think he should have established  
24 whether they had done anything with Sam Vick to  
25 change the adhesive or do something since we're

1 talking about a Sam Vick label that was peeling.  
2 We're not talking about a label put on by Brown &  
3 Root. We're talking about the actual manufacturer.

4 Q. Okay. I'm going to go onto the next  
5 inspection report.

6 Q. (By Mr. Mulley) Let me just ask one  
7 question before you go to the next inspection  
8 report.

9 Did you discuss the conclusions that we had  
10 just talked about with Shannon Phillips?

11 A. What conclusions specifically are you  
12 referencing, George?

13 Q. Your opinions concerning your review of  
14 this inspection report that we just outlined, the  
15 various topics we just went through.

16 A. No. I did not, and I will give you a  
17 reason why I did not. I had a title as group  
18 leader. I was a retained Grade 15; but in reality,  
19 I was not a supervisor. I was a peer in terms of  
20 formal paperwork.

21 I did not feel it appropriate that I should  
22 start critiquing with the individual his report.  
23 Any concerns I had, I passed onto  
24 Mr. Westerman who did the necessary coordination.

25 Q. Good.

1 Q. (By Mr. Goldberg) Next set of issues  
2 involve inspection report 85/16-13, and this was an  
3 inspection which occurred during the period of  
4 November 1st through 30th of 1985.

5 I will put these into three sections. One  
6 is actions on 50.55(e); second, bulletins; and third  
7 section is Bisco seals.

8 The first one involves, I guess, a series  
9 of inspections that were done by Mr. Phillips  
10 assisted by consultants McCleskey and Young on the  
11 issue of action on 50.55(e).

12 I'm going to group them together. If you  
13 want to, I can put them separately or together.  
14 They seem to come together in a group.

15 A. Be my guest.

16 Q. TUGCO failed to develop or implement a  
17 procedure to show a reference of subjective evidence  
18 that deficiencies were corrected. TUGCO failed to  
19 revise implementing procedures before corporate NEO  
20 procedures, resulting in conflict with five other  
21 procedures.

22 TUGCO failed to maintain 50.55(e) files  
23 which were QA records that were retrieveable and  
24 that these records were not produced for almost a  
25 month.



1           Finally, TUGCO failed to report to NRC the  
2       corrective action actually taken and changes to  
3       commitment regarding corrective action reported to  
4       NRC.

5           I understand these issues involve a series  
6       of hardware items that were needed to be checked out  
7       throughout the plant and it was difficult in getting  
8       out to the plant to check the hardware items.

9           A.    I think for me to respond effectively, that  
10      you're going to have to provide me a little more  
11      specificity about the issues than just general  
12      characterizations.

13          Q.    I'll be glad to do so. There were several  
14      variations of these inspection reports. I'm going  
15      to try to get the best one that we can talk from  
16      because they do change quite a bit.

17          Here's one I'll give you. Procedures do  
18      not address 50.55(e) file content or provide a  
19      method for completion/sign-off of corrective  
20      deficiency. Five procedures were reviewed during  
21      the October, 1985, inspection period; and this item  
22      in this version was unresolved because TUGCO  
23      management informed the NRC Comanche Peak group  
24      leader that a new procedure had been developed and  
25      would be implemented.

1 TUGCO management thought the procedure  
2 would take care of procedural weakness. This item  
3 was left unresolved pending the review of this  
4 issue.

5 Does that ring a bell?

6 A. A little. This area Mr. Westerman acted  
7 fairly individually. He kept me informed of where  
8 he was at, what his positions were and his thought  
9 process. I didn't have any particular reservations  
10 about Mr. Westerman's position.

11 Q. Let me give you another issue. 50.55(e)  
12 deficiency files do not contain sufficient  
13 information of documentation. The NRC inspector  
14 reviewed 20 construction files which showed  
15 licensee's action complete.

16 TUGCO QC supervisor stated that reports had  
17 been made to NRC and had nothing to do with ensuring  
18 that corrective action was implemented; however  
19 these files do not contain sufficient documents or  
20 reference documentation that would show that the  
21 deficiencies had been corrected or sufficient  
22 information to show how the evaluation had allowed  
23 TUGCO to conclude the deficiency was not  
24 reportable.

25 What about that?

1           A.    Again, we're talking about prudence rather  
2           than regulatory requirements.  I don't know of any  
3           regulatory requirement that required an organization  
4           to maintain those files.  They have complied that  
5           I'm aware of.

6           Q.    Again, did you rely on Mr. Westerman on  
7           this issue as well?

8           A.    Essentially, yes.

9           Q.    I'll go on to the next issue, a series of  
10          IE bulletins, IE Bulletins 79-14 and 79-28.  Let me  
11          go through them in a group.

12                TUGCO never responded to all aspects of IE  
13          Bulletin 79-14.  TUGCO's IEB files for 1982 and 1985  
14          do not contain sufficient records or reference to  
15          records which allow IEB action, corrective action.  
16          TUGCO had replaced NAMCO switches per IE Bulletin  
17          79-28, but two of the fourteen that were field  
18          inspected were not properly identified.

19          A.    Regarding 79-14, I felt it was somewhat a  
20          moot issue in that the utility had hired Stone &  
21          Webster to essentially verify all of the analysis  
22          that had been performed with respect to 79-14; and  
23          that was and is an ongoing endeavor.

24                So, I think it's a somewhat academic issue  
25          in reality.  It's a matter of knowledge and the NRC



1 stated in public meetings what they are doing in  
2 this particular arena.

3 79-28, all I can say to you is I believe I  
4 was present at a time that I think there was an  
5 issue about records or something, records were  
6 requested of a QC supervisor. Lots of those things  
7 in the records were produced in very short order.

8 I believe there was no problem as regards  
9 to one of these things at all. The one was in a  
10 safety-related system. They did finally produce  
11 records showing what was there was what was  
12 correctly indicated should be.

13 I believe the other one was in a non-safety  
14 related system as best I can recall.

15 Q. There's one issue I wanted to touch on.  
16 It's related to the 79-14. I guess the inspector  
17 found an internal letter, CPA No. 84-163, dated  
18 October 22, 1982, that the engineering manager  
19 stated that "reporting of non-conformance areas of  
20 the IE bulletin which we must take exception and we  
21 will not identify nonconforming conditions to NRC."

22 Is that an appropriate memo to be in the  
23 utility's file?

24 A. If I was a utility executive, I would not  
25 have a memo like that in my file. I don't know that

1 that's a very prudent statement.

2 Q. Would that give an inspector an indication  
3 that they may not be complying?

4 A. No, not necessarily. They would have an  
5 obligation to report under 50.55(e) if they had a  
6 problem that met the criteria of 50.55(e).

7 Q. Going to the last issue, that's the Bisco  
8 matter. I guess you might have more knowledge since  
9 this is sort of vendor related issued.

10 MR. MULLEY: I just have one more  
11 question on the records retrievable.

12 Q. (By Mr. Mulley) From what I understand,  
13 although the inspector couldn't get a record over a  
14 period of a couple of months, apparently either Tom  
15 or somebody was able to go to an individual like you  
16 and get the record within a couple of hours.

17 Do we know whether the individual that he  
18 went to was able to retrieve the record from the  
19 system or was this a record that he may have had on  
20 his own?

21 For example, draft reports, we have certain  
22 inspectors in the region that maintain draft reports  
23 in their desk drawer although these draft reports  
24 should be filed away in a system.

25 Do we have any knowledge that the report

1 that we were actually given came from the system or  
2 came from, you know, a report that he maintained on  
3 the site on his own?

4 A. I think your question, George, is quite  
5 philosophical. The probability of an individual  
6 having or knowing where to go for some private  
7 records when he has no knowledge in advance what the  
8 NRC is going to ask for is so slim that I can reject  
9 it out of hand.

10 Q. You feel there's enough assurance based on  
11 what's going on that if this man got the records, he  
12 had to get it out of the system?

13 A. The gentleman's name is Thomas Brant. I  
14 have no reason whatsoever to believe that he wasn't  
15 able to go anywhere other than the TUGCO record  
16 system.

17 Q. What is his title?

18 A. He's a quality engineering supervisor. I  
19 think he's been there about six years or so. He  
20 happens to be very conversant with the way that  
21 TUGCO structures its records.

22 I think that is why he is able to rapidly  
23 identify in part.

24 Q. What happens if Thomas Brant decides to get  
25 a job up in Connecticut? Would we still be able to



1 get records?

2 A. I obviously couldn't answer that question.  
3 That would be their ultimate dilemma if they  
4 couldn't produce records that we requested  
5 legitimately in any inspection process. They're  
6 going to have a major problem.

7 Q. (By Mr. Goldberg) To follow up, do you  
8 view the retrievability issue as more of a prudency  
9 issue?

10 A. To answer you as candidly as possible,  
11 Mr. Phillips is not the only individual that has had  
12 trouble from time to time retrieving copies of  
13 records.

14 All of my people from time to time have had  
15 some problem or other. The records have always been  
16 retrieved. I don't know what the full scope is. I  
17 don't know whether part of the problem is our lack  
18 of understanding of how their records are  
19 structured, whether they're relying pretty much on a  
20 word-of-mouth system. Maybe we asked for a record  
21 in the wrong way because of our ignorance.

22 I think there's probably a lot of  
23 contributory factors. I'm not about to sit here and  
24 say TUGCO has the finest records retrieval system  
25 I've ever seen because that would be a blatant

1 falsehood.

2 They have at time to time difficulty  
3 retrieving records. In essence, they have retrieved  
4 the record when asked for. Sometimes it took in my  
5 judgment overly long to retrieve. I have never  
6 personally seen it take a month for anything I was  
7 actively personally involved trying to retrieve the  
8 record. No, it's much faster than that.

9 Only arena I have been involved with  
10 difficulty retrieving records was the electric  
11 penetration assembly inspection when I was preparing  
12 the reports with the possibility of escalated  
13 information action; but in that case, some of those  
14 records I don't think existed and we properly  
15 reflected that in the report?

16 A. (By Mr. Goldberg) The last issue in this  
17 inspection report covers Bisco seals. I think I can  
18 read you generally what it is.

19 The certification of Bisco A1 penetration  
20 seals is under review as a result of the  
21 questionable testing. It was first found by  
22 Mr. Young who was a consultant and I believe that  
23 has been put on the unresolved status until all the  
24 facts have been determined. It's still unresolved.  
25 It goes back to the testing that was done in the

1 70's by the company and these, as I understand,  
2 involved a three-hour test for safe-guarding certain  
3 pieces of equipment.

4 Do you want to comment on this one?

5 A. I don't really think so. I wasn't actively  
6 involved. I saw a vendor problem. I knew that we  
7 should be referring it to the vendor branch. The  
8 primary concern was with the vendor.

9 Q. The last inspection has to do with the  
10 current inspection report that has not been  
11 finalized.

12 One issue that we're focusing, we  
13 understood that there was a finding that  
14 Mr. Ellershaw had picked up on involving a welding  
15 issue. It's some clips that were put on in which  
16 there was some problem; and in the exit interview,  
17 Mr. Counsil mentioned something like, "That's a  
18 violation."

19 Are you familiar with this one?

20 A. I recall the exit meeting; and I recall the  
21 subject, yes.

22 Q. Do you have a comment to give us on that?

23 A. In the course of the inspections, one of  
24 our consultants went out to either witness this  
25 third-party evaluation or was doing an independent



1 inspection relative to the activity of those  
2 people.

3 While he was out there, in what whatever  
4 particular arena, he noted some really cruddy --  
5 perhaps I should be a little more precise. He  
6 noticed some welds attaching brackets to an actuator  
7 barrel on some, I believe, it was auxillary field  
8 boiler system valves and the man was a mechanical  
9 inspector and very experienced in welding. He could  
10 see no fusion associated with these welds because  
11 who had ever done the welding had went and placed  
12 these brackets on top of where there was some  
13 casting letters.

14 There were raised letters on the surface,  
15 and they had went and located these brackets right  
16 on top in the arena where these raised letters  
17 were. It was impossible to make a totally sound  
18 weld because of that stupidity, and he came back an  
19 informed us of what he had seen.

20 We in our follow-up of that came to  
21 learn -- I really don't recall exactly how we came  
22 to learn. We came to learn that particular subject  
23 had been addressed in a 50.55(e) report to Region IV  
24 in the past and the 50.55(e) report informed us  
25 they're going to remove those brackets and they're

1 going to replace them with new brackets correctly  
2 welded.

3 As a result of learning this, I went and  
4 located the file relative to that 50.55(e) report.  
5 The document they used to determine reportability, I  
6 believe, is called a significant deficiency analysis  
7 report, SDAR.

8 In this file was a couple of versions or  
9 there was -- there was an SDAR and then a couple of  
10 versions of NCRs and then there was this 50.55(e)  
11 submittal.

12 I saw a document -- I forgot if it was NCR  
13 or SDAR -- but after they had informed the  
14 Commission that they were going to remove these  
15 things, they changed their mind.

16 Apparently, they revised the -- I think it  
17 was the NCR and said use "as-is" and the basis given  
18 for this new disposition was, hey, the vendor is  
19 Fisher Controls, and ASME certificate holder, that  
20 they had used their ASME QA program, the welding had  
21 been done by qualified welders using qualified  
22 welding procedures, specifications, qualified filler  
23 materials, et cetera.

24 Now, I'm looking at a document in full  
25 knowledge that there are welds attaching these

1 brackets that have got non-fusion and rejectable  
2 casings by any standard you want to apply.

3 I was not very happy with this document. A  
4 question came into my mind that there was at least a  
5 potential for wrongdoing, a potential. We learned  
6 right in the same time frame that TUGCO had taken a  
7 statistical sample of NCR with use "as is", that  
8 type of category disposition, 300 of them; and we  
9 learned that one of these valves -- by the way, I  
10 think it was something like 62 valves were reflected  
11 by this problem.

12 We only saw it on the one, but we learned  
13 by checking it was 62 of these valves. We decided  
14 that we would lay back in the weeds and see what  
15 they did about the NCR disposition. We wanted to  
16 see if they themselves would relook at this thing  
17 and say "This is totally non-acceptable."

18 We wanted to get the thing addressed as  
19 rapidly as possible. We made, hopefully, a  
20 pragmatic decision and we would go ahead with the  
21 deviation made to us in 50.55(e) and we would hold  
22 back on the violation to determine our actions after  
23 we'd seen what they were doing.

24 Once we had the thing up front, we didn't  
25 have any problem. The subject is disappearing, I



1 believe. We were in full cognizance.

2 Unfortunately, Mr. Council kind of  
3 preempted us. First time it's ever happened to me.  
4 I've never heard an executive in any organization  
5 turn to a regulatory board and say, "That should be  
6 a violation."

7 It kind of stunned us a little bit, but he  
8 preempted us. We went ahead and pulled out the  
9 violation and I believe we have a report in process  
10 right now that has both the deviation and the  
11 violation, but I'm still reserving judgment on  
12 action until I've seen what they've done on this  
13 particular disposition.

14 MR. MULLEY: I have one more  
15 question.

16 A. Excuse me a moment. I don't want to  
17 interrupt, but this subject was fully discussed in  
18 the regional management, who knew exactly where we  
19 were coming from. It was not something we were  
20 keeping as a little sleuth endeavor.

21 Q. (By Mr. Mulley) There's another area in  
22 the draft inspection report that apparently has to  
23 do with a violation is concerning Brown & Root audit  
24 program?

25 A. Uh-huh.

1 MR. MULLEY: I don't want to get  
2 into that because that's draft inspection.  
3 I don't want to get into the issue  
4 other than to ask there's a again ask,  
5 okay. Maybe it's too general for you to  
6 answer. It's a draft report; but  
7 apparently initially when these findings  
8 were written up they were, written up as a  
9 violation when the inspector was told to  
10 make them unresolved. You got involved and  
11 apparently you replaced Mr. Westerman as  
12 Phillips' immediate supervisor?

13 A. I may have been in an acting capacity at  
14 that time, George; but, yes..

15 Q. You told Phillips these things should be  
16 violations, and you think they should be violations  
17 instead of unresolved items. Did that, in fact,  
18 happen?

19 A. Let me think about that before I respond to  
20 that. I don't believe that that actually happened  
21 that way.

22 A. We had a scenario where he had established  
23 in 1979 Brown & Root had clearly not live up to its  
24 ASME code. We would quite a bit of discussion about  
25 that.

1 I believe I was the one that, thinking  
2 about this issue and the merits, said to Shannon,  
3 "It would be much more meaningful from an assessment  
4 point of view to look at the performance of this  
5 audit program up-to-date."

6 I didn't want to have a citation issued  
7 saying Brown & Root didn't live up to their  
8 responsibilities in 1979; and it could have been a  
9 valid citation and in terms of, yeah, they didn't do  
10 it and then have a utility write back saying, "Yes,  
11 you're right; but here's all the wonderful things we  
12 did. Just look at this program from 1981 onward,"  
13 something like this; and it would kind of make a  
14 useless citation; however, I don't know how well  
15 Brown & Root had been auditing in the '80. So, I  
16 did request Shannon.

17 Q. Let me just ask a general question not  
18 connected to any inspection reports. Have you ever  
19 noticed a tendency on the part of Region IV to try  
20 and resolve issues with TUGCO on an informal basis  
21 where, you know, Region IV gets together with TUGCO  
22 Management, discusses the issues, gets a commitment  
23 from TUGCO, and corrects the problems without going  
24 the violation route?

25 A. I can obviously only speak in the time



1 frame June and July, '85, to date. I can tell you,  
2 though, unequivocally, in the time frame I have been  
3 there, no, I have never seen Region IV personnel  
4 trying to get informal resolutions of findings,  
5 never.

6 That would be personally unacceptable to me  
7 as an individual. I pride myself in trying to be a  
8 professional. I am proud of my personal inspection  
9 history to this organization. I think anyone that  
10 knows anything about me would find it unbelievable  
11 that I would accept that kind of scenario.

12 Q. (By Mr. Mulley) So, based on your  
13 experience at Comanche Peak if a situation is found  
14 to be a violation of some requirement, then it is  
15 written as such.

16 A. That is correct. I have one qualified  
17 statement to that. I do not believe it is in the  
18 NRC's or public's interest to take one isolated  
19 piece of information where technically one could  
20 make some kind of citation and act that way. I  
21 think one should look at things thoroughly, look at  
22 the implications and assess the situation and  
23 determine how to structure the citation.

24 What should be the scope of the citation?  
25 That might mean that I would the request inspector

1 to do further work before we follow the citation  
2 route. It does not mean that I would ever condone  
3 sweeping anything under the rug or doing something  
4 informal. That's not the way I think or act.

5 Q. Have you seen any indication on the part of  
6 Mr. Westerman with his review of the reports to  
7 indicate that he is trying to, you know, downgrade  
8 violations, make them unresolved items, trying to,  
9 you know, get rid of issues?

10 A. No. I believe to the best of his ability  
11 he was trying to get factual reports that did not  
12 contain subjective opinions. You've got to be  
13 factual. I do not think it's in the agency's  
14 interest to write any kind of citation which is  
15 subjective debate, no matter by whom.

16 You do not achieve anything. We have to be  
17 objective and factual at all times. That's my  
18 position. It will always be my position. I believe  
19 that's fairness, due process, everything you want to  
20 say.

21 Q. So, in your opinion, if there's an issue  
22 that is debatable or that we can perceive with a  
23 licensee to come back and successfully rebut the  
24 violation, do you feel it is encumbant on the NRC to  
25 get their act together before we issue the violation

1 versus issuing the violation and having the licensee  
2 respond why they did what they did?

3 For example, let me just throw out the  
4 in-process records or records being co-mingled.

5 A. Uh-huh.

6 Q. Where apparently an argument could be made  
7 that they're not records but documents that are in  
8 process. We have had debates in the NRC whether or  
9 not these are records of documents.

10 Do you feel that it's a good practice for  
11 NRC to issue the violation and have the licensee  
12 come back and make that argument to us that these  
13 are, in fact, in-process documents and not records?

14 A. I'll respond as an individual, which is all  
15 I can do. I do not speak for NRC. Only the  
16 commissioners can do that.

17 I would say to issue a violation being full  
18 aware that there was debatable aspects would be  
19 inexcusable and in violation of my understanding of  
20 the enforcement policy of this agency.

21 I would expect Jane Axlerod and her staff  
22 to jump on us with both feet. We do not write  
23 opinions as citations. I think it would be totally  
24 and utterly inexcusable.

25 Q. So, something like this, you feel it would



1 be acceptable to write an item as unresolved until  
2 we came across a consensus within ourselves as to  
3 whether or not --

4 A. What is an unresolved item? The official  
5 terminology today which, by the way, has altered  
6 historically is an issue where the NRC needs more  
7 information to determine whether a violation or  
8 deviation exists historically which isn't clearly  
9 shown by the manual chapter. I don't know if it  
10 ever was.

11 Most inspectors look at an unresolved item  
12 as a subject where they believe a violation or  
13 deviation exists, but because of circumstances -- be  
14 it the records are not at the site or they're at  
15 some other location -- they can't make the final  
16 determination to prove that there's a violation or  
17 deviation. There's really not that much difference.

18 I believe an unresolved item is the  
19 prescribed vehicle where there are issues that you  
20 might need input or information from others before  
21 you make a determination.

22 Q. One question having to do with Shannon  
23 Phillips. You have not been present when  
24 Mr. Westerman has discussed inspection findings with  
25 Shannon and witness Mr. Phillips and/or Mr. Phillips

1 and Mr. Westerman, you know, debate these issues?  
2 Were you present during these discussions?

3 A. I will say it would be correct for me to  
4 say in general I was not present. I would not  
5 preclude that there might have been some  
6 conversation about a particular issue at some point;  
7 but in general, I was not present.

8 Q. Okay. That's all I have now. If you would  
9 like to add something before we close out the  
10 record --

11 Q. (By Mr. Goldberg) I have one last issue.  
12 This might have been before your time of your  
13 involvement at Comanche Peak as to what modules were  
14 or were not covered over a period of time,  
15 particularly QA modules such as the inspection of  
16 the QA at TUGCO, for example.

17 Did you want to comment on that at all in  
18 terms of, you know -- first of all, we were told  
19 that you're filling out 766 information for your  
20 people. As I understand, this is what we were  
21 told.

22 We're trying to look at 766's to determine  
23 if certain modules were completed, how they were  
24 completed, and whether they were B modules or C  
25 modules, that kind of thing?

1           A.    Obviously I wasn't at Comanche Peak prior  
2           to June of 1985.  So, obviously I cannot speak with  
3           any specification.  All I can say is that the 766  
4           vehicle is a somewhat flawed vehicle.

5                    I don't think there's been correct  
6           understanding by inspectors and I can give you a  
7           story about my current difficulties in completing  
8           these forms but I would not personally make any  
9           judgment about what was done or what wasn't done  
10          without really analyzing where was the inspection  
11          program on a given point in time.

12                   The IE 25-12 program has not exactly been  
13          cast in concrete for many, many years.  It has been  
14          a dynamic program and thing in constant change.  
15          Well, logic tells you that if you keep making  
16          changes in programs this will obviously impact on  
17          what has been done in the past.

18                   I don't have any specific judgment, but I  
19          wouldn't make a judgment until I had looked at  
20          programs at a point in time, what was required and  
21          all that scenario.

22           Q.    Getting to today's time frame, when you  
23          fill out a 766 when something is completed, is it  
24          based upon the inspector's coverage of the  
25          inspection requirements of that module or based on



1 some other criteria?

2 A. Let me try and explain my involvement  
3 currently with 766. Through the January report,  
4 1986, we were issuing -- I'll call it an integrated  
5 inspection report in that there were appendices  
6 addressing operations inspection, construction  
7 inspection, Comanch Peak response team inspections;  
8 and I learned that the system really wasn't designed  
9 to handle all of these diversities in a 766.

10 It was never dreamed of at the time the  
11 program developed that that kind of approach would  
12 go on; but, in essence, the operations and  
13 construction inspections, the senior resident  
14 completes that information including status,  
15 presents it to me. It's a judgments call.

16 That's his responsibility to determine how  
17 far along he perceives they are on a given  
18 inspection module.

19 I handle the Comanche Peak response team  
20 totally differently in that the Comanche Peak  
21 response team inspection to my knowledge is a unique  
22 endeavor from an NRC point of view.

23 To my knowledge, the NRC has never devoted  
24 resources of the magnitude they do at Comanche Peak  
25 to do this ongoing massive surveillance and

1 reinspecting program.

2           There's nothing in our guidance that even  
3 addresses something, nor would you expect to have  
4 guidance. We're talking about something unique. We  
5 are looking at a program prepared by a utility  
6 because of ongoing questions, including the SLB  
7 questions, to assess how well the plant is built,  
8 does it comply with the Committee's code and  
9 standards is it safety significant.

10           In a nutshell, we're looking at something  
11 that's unique. I found no way readily of addressing  
12 that in a 766. I also found that a 766 was kind of  
13 useless less to me if you place any credence at all  
14 in the significance of hours of inspection.

15           I couldn't use it accurately. Actually, in  
16 the absence of any guidance, I decided I would use a  
17 particular inspection module with a number 92705;  
18 and that, in essence, is a number that all it means  
19 is regionally requested inspection.

20           It's a reactive inspection. We are  
21 certainly doing reactive inspection now.  
22 Unfortunately, the hours we have invested every  
23 month is usually in excess of 2,000 man-hours of  
24 effort by consultants and the permanent NRC staff.

25           The form only allows me to charge 999 hours

1 maximum. So the system is forcing me to log in a  
2 fraction of what we're actually doing. So what is  
3 the value of that. Make your own determination. I  
4 tried to enter the same number multiple times so I  
5 can get the hours. I got it thrown back at me. You  
6 can only enter it once.

7 We've done so much work, so much  
8 inspection, an order of magnitude certainly much  
9 greater than the order of magnitude to relative to  
10 IE inspection modules.

11 We've done physically so much more work  
12 than traditionally NRC would ever do at a site. I  
13 wonder how can I use the work and take credit and  
14 how can I reflect this inspection report in our  
15 regular program.

16 I'm going to look at can I legitimately  
17 just add hours into given inspection modules, not  
18 changing the status of them necessarily; but I want  
19 our official records to reflect this efforts.

20 I still have not reached a final  
21 determination on how I'm going to do it.

22 Q. (By Mr. Mulley) On the 766, just one  
23 comment, if you put down an inspection module, is it  
24 reasonable for a reviewer to go back to that  
25 inspection report and see the inspection activities



1 on that module documented in the reports?

2 A. Is it reasonable to expect that?

3 Q. It is reasonable to hope?

4 A. I obviously cannot speak for actual  
5 performance of all reviews in this region or in this  
6 agency. I think that a supervisor certainly should  
7 look at 766 via or versus the reports; but I could  
8 think of several scenarios where the two could get  
9 separated or the 766 got generated later.

10 I personally think the situation where I've  
11 been involved in the last year where, since I was  
12 the guy that put this package together, that  
13 sometimes I'm somewhat late putting that thing  
14 together. I was the 766 preparer.

15 It is reasonable to hope that someone would  
16 check a 766 against the report. It is also not  
17 unreasonable to expect that from time to time -- and  
18 I wouldn't speculate on frequency -- that perhaps it  
19 doesn't get done.

20 Q. So, if I were going to try to make an  
21 assessment of the status of various inspection  
22 modules and procedures, 766 wouldn't be a  
23 trustworthy place to go? I would have to go beyond  
24 that to get an accurate --

25 A. I think the 766 is probably the only real

1 vehicle one would have. See, George, you have to  
2 put in other factors into the equation. We do not  
3 separate inspection programs with locked in assigned  
4 people over a historical time span. You get  
5 different individuals for whatever reason. There's  
6 all kinds of reasons one could get assigned to pick  
7 up on a given module. You gets errors created in  
8 that sometimes.

9 I think some inspectors have said, "You  
10 have given me the module. Was there any work ever  
11 done on the thing before?" They started from ground  
12 zero again.

13 So, you get all these strange anomalies  
14 that cloud the issue; but in terms of what other  
15 vehicle is there, the only other vehicle is called  
16 personal communication.

17 Inspectors it wouldn't be reasonable to  
18 have the time to start doing historical reviews of  
19 reports, collective reports of periods of years.

20 We really, I think, place a great onus of  
21 responsibilities on the senior resident to know  
22 where the inspection program is at. He's the only  
23 person that can over a period of time go through the  
24 whole thing and learn, "Hey, this hasn't been  
25 addressed" or "This is still shown at some

1 percentage."

2           Probably the only viable mechanism we have  
3 to date is to rely heavily on the senior resident.  
4 Since the senior resident program was created, I  
5 think, in 1979 or so and I was assigned to the plant  
6 that broke ground in, say, early '75, I'm afraid I  
7 can't say much more than that.

8           Q.    If you have anything that you would like to  
9 add before we close out the record, you may.

10          A.    Yeah, I think I would like to say a few  
11 words. I find it regrettable that there's a need  
12 for you gentlemen to be here.

13                I find that personally regrettable and  
14 sad. I wish that if an individual or individuals  
15 had had real concerns or have real concerns, that  
16 they had followed the prescribed route. There has  
17 been agency policy -- I forget the exact year -- for  
18 several years about different professional opinions;  
19 and I know that Chairman Hollis Dean is a proponent  
20 of of this.

21                I can remember from my vendor days of a  
22 gentleman who had a differing professional opinion.  
23 He followed the prescribed route. His concerns were  
24 reviewed by an independent panel of his peers.

25                It came out of the IE and NRR, and they



1 disagreed with his particular concerns; but it was  
2 handled while they told him why they had reached the  
3 conclusion they did; and that was the end of the  
4 matter.

5 I just find it totally regrettable that  
6 this scenario had to come to pass. I don't  
7 understand why it came to pass, to be honest with  
8 you.

9 With regards to Mr. Westerman, I will have  
10 to say -- I believe my personal judgment is that he  
11 tried at all times to communicate and to do the job  
12 as a prudent manager should. It doesn't mean that  
13 he was perfect. I'm not perfect. We're all flawed  
14 in some respect or other.

15 I would personally never accept any  
16 contention that Mr. Westerman was trying to suppress  
17 a citation in any way. That's my personal belief.

18 If I felt he was trying to suppress  
19 information, be it a citation or whatever, I can  
20 assure you I would have taken violent exception to  
21 him and gone the prescribed route personally.

22 I just will never accept any contention  
23 that he acted improperly in any way. I believe he  
24 tried to live up totally to his responsibilities as  
25 an NRC supervisor. I think his interests was that

1 the reports be totally factual, that we can stand  
2 totally behind them.

3 I certainly did not want personally to be  
4 associated with any report that's going to be  
5 submitted to the ASLB to become part of the hearing  
6 process if I couldn't stand behind the report. I  
7 did not think that would be right.

8 The stand of ethics have is such that no  
9 matter whether there was and ASLB or not, I will not  
10 accept writing subjective citations as a correct  
11 practice, nor do I believe the IE guidance would  
12 allow us to do that.

13 That's about all I have to say.

14 (Statement concluded at  
15 12:50 a.m. C.D.T.)  
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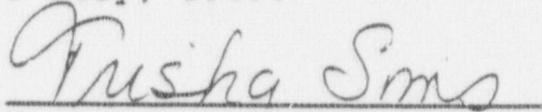
1 STATE OF TEXAS \*

2 COUNTY OF HARRIS \*

3  
4 I, Trisha Sims, a certified shorthand  
5 reporter and notary public, in Harris County for the  
6 State of Texas, certify that the facts stated in the  
7 caption hereto are true; that the witness named  
8 herein personally appeared before me and, after  
9 being by me first carefully cautioned and sworn to  
tell the truth, was examined by counsel for the  
respective parties hereto; that the testimony of  
said witness was taken down in shorthand by me,  
later reduced to typewriting under my direction as a  
true and correct record of the testimony.

10 I further certify that I am neither  
11 attorney or counsel for, nor related to or employed  
12 by, any of the parties to the action in which this  
13 statement is taken and, further, that I am not a  
relative or employee of any counsel employed by the  
parties hereto, or financially interested in the  
action.

14 GIVEN UNDER MY HAND AND SEAL OF OFFICE on  
15 this the 26th day of July, 1986.

16   
17 Notary Public in and for  
Harris County, T E X A S

18  
19 Certification Number: 2035  
20 Date of Expiration of  
21 Current Certification: 12/31/86  
22  
23  
24  
25



## NA-1140 EFFECTIVE DATES OF CODE EDITIONS, ADDENDA, AND CASES

(a) Code Editions become mandatory on July 1 of the publication year printed on the cover. Addenda may be used on and after the date of issue and become mandatory six months after the date of issue.

(b) Code Cases may be used beginning with the date of approval by the ASME Council and, being permissive, do not become mandatory. Only Code Cases that are specifically identified as being applicable to Section III may be used for construction in accordance with this Section.

(c) The Code Edition, including Addenda, which is mandatory on the contract date for a component shall determine the mandatory rules for the manufacture and installation of that component, including its materials, parts, and appurtenances. Earlier editions shall not be used except to meet the requirements of Section XI for alteration, modification, renewal, replacement, or spare components, parts, or appurtenances.

the mandatory rules for manufacture and installation of core support structures and component supports including their materials. Earlier editions shall not be used.

(e) The contract date for an entire nuclear power system does not govern the Code Edition, Addenda, and Cases applicable to the components, core support structures, and component supports.

(f) Code Editions, Addenda, and Cases which have not become mandatory on the contract date for a component may be used by mutual consent of the Owner<sup>1</sup> or his agent and Manufacturer<sup>2</sup> or Installer<sup>3</sup> on or after the dates permitted by (a) through (d) above. It is permitted to use specific provisions within an Edition or Addenda provided that all related requirements are met.

(g) Caution is advised when using Addenda or Cases that are less restrictive than former requirements without having assurance that they are acceptable to the enforcement authorities having jurisdiction at the nuclear plant site.

(h) The Owner or his agent shall obtain a Certificate of Authorization (NA-3230 and NA-8240) prior to the field installation (NA-1250) of any item of

the nuclear power plant to be constructed in accordance with this Section.

## NA-1200 GENERAL REQUIREMENTS FOR AND DEFINITIONS OF ITEMS AND INSTALLATION

## NA-1210 COMPONENTS

The [redacted] of a nuclear power plant include items such as, vessels, [redacted] pumps, valves, and storage tanks. Each component shall bear the required Code N-type Symbol<sup>4</sup> and Manufacturer's Data Reports shall be prepared for them (NA-3370 and NA-8400). The Installer of such components or any associated appurtenances shall complete Data Report Form N-5 which serves to indicate that each component or appurtenance assembled into the nuclear power plant and the installation meet the requirements of this Section.

## NA-1220 MATERIALS

Materials are manufactured to an SA, SB, or SFA Specification<sup>5</sup> or any other material specification permitted by this Section. Such material shall be manufactured and certified in accordance with the requirements of this Section. Materials produced under an ASTM designation may be accepted as complying with the corresponding ASME specification provided the ASME specification is designated as being identical with the ASTM specification for the grade, class, or type produced and provided that the material is confirmed as complying with the ASTM specification by a Certified Materials Test Report or Certification from the Material Manufacturer. Welding material produced under an AWS designation may be accepted as complying with the corresponding ASME specification provided the latter specification is indicated to be identical with the AWS specification and provided the welding material is confirmed as complying with the AWS specification by a Certified Material Test Report or Certification from the Materials Manufacturer.

<sup>4</sup>The term N-type symbol means any one of the symbols shown in Figure NA-8220-1.

<sup>5</sup>SA or SB Specifications listed under the heading Bars, Rods, Shapes, Forgings may be used as material for any of these product forms even though not all product forms are listed in the SA or SB Specification.

<sup>1</sup>See NA-3210 for definition of Owner.

<sup>2</sup>See NA-3310 for definition of Manufacturer.

<sup>3</sup>See NA-3410 for definition of Installer.

**NA-1231 Parts**

Parts have work performed on them requiring the presence of or verification by an Inspector<sup>1</sup> and are furnished to a component Manufacturer by other Manufacturers, or by the same component Manufacturer under a different Certificate of Authorization (NA-8113) than that applying to the component. By definition, a part is attached to or becomes a part of a component before completion and stamping of the component. The Design Specifications (NA-3250) and Stress Report (NA-3350) for components shall apply to the parts of such components. Data reports and stamping shall be as required in NA-8000.

**NA-1232 Piping Subassemblies**

~~Piping is defined as that part of a piping system consisting of fittings and pipes or tubes which are fabricated as subassemblies in a shop or in the field.~~

The Design Specifications (NA-3250) and Stress Report (NA-3350) for the piping system shall apply to the piping subassemblies of that system. Data reports and stamping shall be as required in NA-8000.

**NA-1240 CORE SUPPORT STRUCTURES**

Core Support Structures are those structures or parts of structures which are designed to provide direct support or restraint of the core (fuel assemblies) within the reactor vessel. Core Support Structures require Design Specifications (NA-3250) and Stress Report (NA-3350). Data Reports and Stamping shall be as required in NA-8000.

**NA-1250 COMPONENT SUPPORTS**

Component supports are those metal supports which are designed to transmit loads from the pressure-retaining barrier of the component to the load-carrying building structure. The design conditions for component supports shall be included in either the component Design Specifications (NA-3250) or in a separate Design Specification. A Stress Report or Load Capacity Data Sheet (NA-3352) for each component support or group of component supports for each component shall be furnished by the Manufacturer of the component or the component support. Data Reports and stamping shall be as required in NA-8000.

each component support or group of component supports for each component shall be furnished by the Manufacturer. Data Reports and Stamping shall be as required in NA-8000.

**NA-1260 APPURTENANCES AND PENETRATION ASSEMBLIES****NA-1261 Appurtenances**

An appurtenance is an item similar to a part (NA-1230) which is attached to a completed and stamped component. The design conditions for appurtenances shall be included in either the component Design Specification (NA-3250) or in a separate Design Specification. A Stress Report (NA-3352) for each appurtenance or group of identical appurtenances for each component shall be furnished by the appurtenance Manufacturer if not included in the component Stress Report. The Owner, directly or through his agent, shall be responsible for the overall correlation of the component and appurtenance Stress Reports (NA-3260). Data reports and stamping shall be as required by NA-8000.

**NA-1262 Penetration Assemblies**

Penetration assemblies are defined as electrical or mechanical parts or appurtenances required to permit piping, mechanical devices, or electrical connections, to pass through the pressure retaining boundary of a component.

**NA-1270 MISCELLANEOUS ITEMS****NA-1271 Control Rod Drive Housings**

Control rod drive housings attached to a reactor vessel shall be considered in the Design Specifications as a vessel part or appurtenance or as a separate vessel. The rules of Subsection NB shall apply to those portions of the housings forming a pressure retaining boundary.

**NA-1272 Heater Elements**

That portion of heater elements forming a pressure retaining boundary of a nuclear power system shall be considered in the Design Specification either as a part or an appurtenance.

**NA-1273 Fluid Conditioner Devices**

That portion of a fluid conditioner device such as a filter, demineralizer, trap, or strainer which forms the



## ARTICLE NB-6000

### TESTING

#### NB-6100 GENERAL REQUIREMENTS

#### NB-6110 TESTING OF COMPONENTS, APPURTENANCES, AND SYSTEMS

#### NB-6111 Components and Appurtenances

##### NB-6111.1 Hydrostatic Testing

(a) ~~When components, appurtenances, or systems are not readily dried, they shall be tested hydrostatically in the presence of the Inspector. Nuts, bolts, studs, and gaskets are exempt from hydrostatic testing.~~

(b) The hydrostatic test of each line valve and pump with inlet connections over 4 in. nominal pipe size shall be witnessed by the Inspector and a data report completed for each (NA-8400).

(c) A hydrostatic test of each line valve and pump with inlet piping connections of 4 in. nominal pipe size and smaller shall be performed by the Manufacturer and so noted on the data report form (NA-8400); however, this hydrostatic test need not be witnessed by the Inspector. The Inspector's review of the Manufacturer's test records will be his authority to sign the report and takes precedence over NA-5280.

NB-6111.2 Pneumatic Testing. When a hydrostatic test is not practical (NB-6112), a pneumatic test, in accordance with NB-6300, may be substituted.

#### NB-6112 When Pneumatic Testing may be Used

(a) Pneumatic tests may be used in lieu of the hydrostatic test required by NB-6111.1 and NB-6113 except as permitted in (b) below, only when the following conditions exist:

(1) When components, appurtenances or systems are so designed or supported that they cannot be safely filled with water;<sup>1</sup>

<sup>1</sup>These tests may be made with the item being tested partially filled with water, if desired.

(2) When components, appurtenances, or systems, which are not readily dried, are to be used in services where traces of the testing medium cannot be tolerated and, whenever possible, the parts of the components, appurtenances, or systems have been previously hydrostatically tested to the pressure required in NB-6220.

(b) A pneumatic test at a pressure not to exceed 25 psi may be applied, preliminary to either a hydrostatic or a pneumatic test, as a means of locating major leaks. If used, the preliminary pneumatic test shall be carried out in accordance with the requirements of NB-6300.

NB-6112.1 Precautions to be Employed in Pneumatic Testing. Compressed gas is hazardous when used as a testing medium. It is therefore recommended that special precautions for protection of personnel be taken when a gas under pressure is used as test medium.

#### NB-6113 Testing of Systems

NB-6113.1 Hydrostatic Testing. Prior to initial operation, the installed nuclear energy system shall be hydrostatically tested except as permitted in NB-6113.2 in the presence of the Inspector. The test shall be conducted in accordance with the requirements of NB-6200.

NB-6113.2 Pneumatic Testing. When a hydrostatic test (NB-6112) is not practical, a pneumatic test, in accordance with NB-6300, may be substituted.

#### NB-6114 Time of Hydrostatic Tests of Parts, Piping Subassemblies, and Materials

(a) ~~When components, appurtenances, or systems are not readily dried, they shall be tested hydrostatically in the presence of the Inspector. Nuts, bolts, studs, and gaskets are exempt from hydrostatic testing.~~ test when conducted in accordance with the requirements of NB-6221(a) shall be acceptable as a test for parts and piping subassemblies.

(b) The component or appurtenance hydrostatic test when conducted in accordance with the requirements of NB-6221 may be used in lieu of any



(c) For the vessel hydrostatic test before installation, it is recommended that the test be made at a temperature not lower than  $RT_{NDT} + 60$  F (see NB-2331).

#### NB-6213 Check of Test Equipment Before Applying Pressure

The test equipment shall be examined before pressure is applied to ensure that it is tight and that all low pressure filling lines and other appurtenances that should not be subjected to the test pressures have been disconnected or isolated by valves or other suitable means.

#### NB-6215 Examination for Leakage After Application of Pressure

Following the application of the hydrostatic test pressure for a minimum of 10 min. (NB-6224), examination for leakage shall be made of all joints, connections, and of all regions of high stress such as regions around openings and thickness transition sections. Except in the case of pumps and valves, which shall be examined while at test pressure, this examination shall be made at a pressure equal to the greater of the design pressure or  $\frac{3}{4}$  of the test pressure, and it shall be witnessed by the Inspector. Leakage of temporary gaskets and seals, installed for the purpose of conducting the hydrostatic test and which will be replaced later, may be permitted unless the leakage exceeds the capacity to maintain system test pressure for the required amount of time. Other leaks, such as from permanent seals, seats, and gasketed joints in components, may be permitted when specifically allowed by the Design Specifications. Leakage from temporary seals or leakage permitted by the Design Specification shall be directed away from the surface of the component to avoid masking leaks from other joints.

#### NB-6220 HYDROSTATIC TEST PRESSURE REQUIREMENTS

##### NB-6221 Minimum Required Hydrostatic Test Pressure

(a) Except as may be otherwise required by material specifications (NB-6114), ~~the system design pressure shall be established in accordance with the rules of NB-7411.~~ and appurtenances except those containing brazed joints, pumps, and valves shall be subjected to a hydrostatic test at a pressure not less than 1.25 times the system design pressure.

~~system.~~ The system design pressure shall be established in accordance with the rules of NB-7411.

(b) All pressure retaining components of the completed system that are within the boundary protected by the overpressure protection devices which satisfy the requirements of NB-7000 shall be subjected to a system hydrostatic test at a pressure not less than 1.25 times the system design pressure. The system design pressure for the protected boundary shall be established in accordance with the rules of NB-7411.

(c) ~~The component can be repaired by welding, if required as a result of the system hydrostatic test, in accordance with the rules of NB-2500;~~

(1) The component can be repaired by welding, if required as a result of the system hydrostatic test, in accordance with the rules of NB-2500;

(2) The component repair can be postweld heat treated, if required and nondestructively examined in accordance with rules of NB-2500, and NB-5100 as applicable, subsequent to the system hydrostatic test;

(3) The component is subjected to minimum required system hydrostatic test following the completion of repair and examination.

#### NB-6222 Maximum Permissible Hydrostatic Test Pressure

(a) The stress limits specified in NB-3226 shall be used in determining the permissible hydrostatic test pressure. In multichamber components, pressure may be simultaneously applied to the appropriate adjacent chamber to meet these stress limits. The number of test sequences for which the above provisions may be considered applicable shall not exceed ten.

(b) When hydrostatically testing a system, the test pressure shall not exceed the maximum test pressure of any component in the system.

#### NB-6223 Hydrostatic Test Pressure for Pumps and Valves, and for Components and Appurtenances Containing Brazed Joints

Prior to installation, pumps and valves and other components and appurtenances containing brazed joints shall be hydrostatically tested at a pressure 1.5 times the system design pressure as determined by the rule of NB-6221(b), except that in the case of valves designed in accordance with NB-3531, the rules of NB-3531.2 shall apply.

# MATRIX OF DRAFTS FOR RPT 85-14/11 (APPENDIX D)

Documents								IDENTIFIED DIFFERENCE
1.0 Draft Handwritten								* Original finding
2.a. Draft typed. Mgt. reviewed and directed changes.								** Difference
2.b. First Draft revised to implement changes.								*** Violation dropped per direction.
3.a. Second Draft to add information								**** Someone other than inspectors dropped finding & advised inspector(s) after dropped.
3.b. Final report submitted i.e. Appendix D								
4.a. Final report Appendix A - F.								
4.b. Final report issued.								
Documents								
Subject/Para. (Inspector)	1.0	2.a	2.b	3a	3.b	4.a	4.b	
QA Records System / 5.0								
• Introduction (Inspector Phillip)	*	**	***					Violation downgraded.
• ISA A does not describe TUGCO Records System								
Para. 5.a. of draft report. QA manual does not address ANSI 45.2.9 requirements/commitments of Criterion II (Phillip)	*	**	***					Violation downgraded.
• Para. 5.b. Tugco failed to have/use procedures to control shipment of original records to Stone & Webster N.Y etc. violation of Criterion II (T. Young)	*	*	*	*	**	****		Violation downgraded.
• Para. 5.b. Original design records shipped in cardboard boxes without making backup copy. violation of Criterion XVII (T. Young)	*	**	***			****		*** Violation dropped. **** Unresolved item dropped.

Subject/Para. (Inspector)	1	2a	2b	3a	3b	4a	4b	
Para 5b. Failure to control & account for QA/design records transferred site to SWEC, NY. Violation of Criterion XVII (T. Young)	*	*	*	*	*	***		Changed from Criterion XVII to I but do not recall being coordinated.
Para. 5.b TUGCO stated design record shipped with att: making backup copy because cost too much. This relates to the cause of violation. Also stated it was company policy to proceed at own risk (T. Young; S. Phillips)	*	**	***			****		Whole matter deleted out of report. not agr.
Para. 5.c. Site records of Chicago Bridge work shipped to Houston Tx in cardboard boxes. Originals subjected to little protection without retaining backup copy at site. Violation Crit XVII (T. Young)	*	**	***					Violation dropped.
Para. 5.c. TUGCO failed to inventory C&I records sent to Houston, Tx. Therefore cannot determine records that must be returned. Violation <del>Criterion XVII</del> (T. Young)	*	**	*	*	*	****		Did not realize this was dropped from the report until this matrix was made.



Subject/Para. (Inspector)	1	2a	2b	3.a	3.b	4a	4b	
Para. 5.c. TUGCO audited CBZ Houston and in scope of report stated it included Criterion XVII, QA Records, but did not document the audit of records. Violation of Criterion XVIII.1	*	*	*	* *	***			Violation downgraded.
Para. 5.d. (2) & (3) violations								
Failure to preclude rain from entering QA records vault over several years time. (Young; Phillips)	*	*	*	*	*	****		Violation downgraded to open.
Failure to preclude food, coffee pot (fire hazard) from QA records vault. (Young; Phillips)	*	*	*	*	*	****		Violation dropped.
Para. 5.d. (4) Failure to provide temporary or permanent storage facility for records commingled with in process documents in the paper flow group. (Young)	*	*	*	*	*	****		Violation dropped in final report. 2 was told.
Para. 7.0 (5) Weld rod not identified.								
a. Main Distribution	*	*	*	*	*	****		Violation dropped in final report.
b. Distribution station	*	*	*	*	*	****		
Violation								

## Speed Letter.

To D. L. AndersonFrom D. W. LeighSubject: Classification to CRET Audit TCB-16 Criterion VII Record

MESSAGE

Date 1/9/ 19 86

The following area of review was conducted thru the course of the audit: The audit team verified written quality procedures NRP-1 R/7 "Nuclear Records Procedure" and NRV-1 R/4 "Operation and maintenance of Nuclear Records Vault". The implementation of the referenced procedures was verified by review of NDE Records, CMTR's, CAR's, NCR's Inspector and Level III Training etc. The verification was performed by review of the following sequence:

1.) Receipt of the records in Houston (as documented by transmittal letters

REPLY and receipt acknowledgement.

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- 2) Review of the records by a Quality Coordinator to the contract requirements.
- 3) Transmittal for microfilming
- 4) Storage and control of the records once they were microfilmed.

The audit team found all records were retrievable and well maintained.

Danny Leigh

Signed

CC: TCB-16