

ORIGINAL

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

---

---

IN THE MATTER OF:

DOCKET NO: STN 50-498-OL  
STN 50-499-OL

EVIDENTIARY HEARING

HOUSTON LIGHTING AND POWER COMPANY,  
et al.

(South Texas Project Units 1 and 2)

LOCATION: HOUSTON, TEXAS

PAGES: 12358 - 12590

DATE: WEDNESDAY, JULY 17, 1985

---

---

TR-01  
o/i

ACE-FEDERAL REPORTERS, INC.

*Official Reporters*  
444 North Capitol Street  
Washington, D.C. 20001  
(202) 347-3700

8507250032 850717  
PDR ADDCK 05000498  
T PDR

NATIONWIDE COVERAGE

1  
2 UNITED STATES OF AMERICA  
3 NUCLEAR REGULATORY COMMISSION  
4 BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

5 -----X

6 In the Matter of: : DOCKET NO.  
7 HOUSTON LIGHTING AND POWER : STN-50-498-OL  
8 COMPANY, ET AL., : STN-50-499-OL  
9 (South Texas Project Units 1 & 2 :

10 -----X

11 University of Houston  
12 Teaching Unit II, #215  
13 Houston, Texas

14  
15  
16 Wednesday, 17 July 1985

17  
18 The hearing in the above-entitled matter was  
19 convened, pursuant to adjournment, at 9:05 a.m.,

20 BEFORE:

21 JUDGE CHARLES BECHHOEPER, Chairman,  
22 Atomic Safety and Licensing Board.  
23 JUDGE JAMES C. LAMB, Member,  
24 Atomic Safety and Licensing Board.

1 JUDGE FREDERICK J. SHON, Member,  
2 Atomic Safety and Licensing Board.

3  
4 APPEARANCES:

5 On behalf of the Applicants:

6 MAURICE AXELRAD, Esq.,  
7 JACK R. NEWMAN, Esq.,  
8 ALVIN GUTTERMAN, Esq.,  
9 DONALD J. SILVERMAN, Esq.,  
10 Newman & Holtzinger,  
11 Washington, D.C.

12  
13  
14 On behalf of the Nuclear Regulatory Commission Staff:

15 EDWIN J. REIS, Esq.,  
16 ORESTE RUSS PIRFO, Esq.,  
17 Office of the Executive Legal Director

18  
19  
20 On behalf of the Intervenor:

21 LANNY ALAN SINKIN,  
22 3022 Porter St. N.W., #304  
23 Washington, D.C. 20008  
24 Representative for Citizens Concerned About  
25 Nuclear Power.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

C O N T E N T S

WITNESSES: DIRECT CROSS BOARD RECROSS REDIRECT

JEROME H. GOLDBERG) 12368 12535  
12522

EXHIBITS:	FOR ID:	IN EVD.
89	12423	12424
83		12381
86	12404	12404
90	12481	12481
91	12486	

1 JUDGE BECHHOEFER: Good morning, ladies and  
2 gentlemen. I will confirm that if we need hearings  
3 during the week of August 13 to 16, they will be held  
4 here in this room. And I'm issuing a notice from  
5 Bethesda that spells out all the hearings, including  
6 that one.

7 Any preliminary matters before we resume?

8 MR. SINKIN: Yes, Mr. Chairman, I have one  
9 preliminary matter. Earlier in the hearing we  
10 introduced CCANP 72 or had it marked for  
11 identification. It was the excerpt from the quality  
12 assurance manual for Brown & Root and it was called to  
13 our attention that the date at the bottom was August the  
14 14th, 1981, and that this revision would not have been  
15 in place at the time Quadrex was doing their study or  
16 the decisions on reportability were made or at least the  
17 decisions on notification.

18 And I approached the Applicants about  
19 providing the copy of this quality assurance manual that  
20 was in place at the time. I pointed out to them that it  
21 was produced to the State of Texas in discovery, that  
22 there was only one Brown & Root quality assurance manual  
23 that Texas took in discovery, and that it was almost  
24 certainly the intent of the State of Texas to get the  
25 one that was in place at the time of Quadrex.

1           They pointed out to me that that was done  
2 without written pleadings and very informally and that  
3 they are not sure what was asked for and they have  
4 decided not to provide me with the copy of the Brown &  
5 Root quality assurance manual in place at the time of  
6 the Quadrex study.

7           We also talked about this on the record at one  
8 point and Mr. Axelrad encouraged that we go off the  
9 record. I have attempted off the record to work this  
10 out. It hasn't worked out.

11           I think that the Brown & Root quality  
12 assurance manual in place at the time the Quadrex study  
13 was done is a valuable addition to the record. It is  
14 not a document that's in any way in controversy in a  
15 sense it's known what it is. And that the production of  
16 such a document by the Applicants for introduction into  
17 the record is no great burden or any prejudice to them.

18           I still feel personally in my own mind that  
19 the State of Texas must have asked for the one in place  
20 at the time of Quadrex and the one that was produced was  
21 produced two months later. There would be no reason for  
22 the August 1981 manual to be at issue.

23           So, I've come on the record to raise this  
24 issue in hopes that the Board will encourage or direct  
25 the Applicants to produce the section of the Brown &

1 Root quality assurance manual that is excerpted in  
2 CCANP's Exhibit 72 that was in place in Brown & Root in  
3 the period that Quadrex conducted its study.

4 MR. GUTTERMAN: It sounds to me like what  
5 CCANP is asking for is additional discovery at this  
6 time. CCANP had an adequate opportunity for discovery.  
7 I frankly can't remember what the State of Texas'  
8 request was regarding that quality assurance manual.  
9 The State of Texas never expressed any dissatisfaction  
10 with it back then and has never expressed any  
11 dissatisfaction with it since. The thing said on its  
12 face what it was.

13 I just -- I cannot see the basis for document  
14 production at this time. There is an exhibit already  
15 admitted in Phase I, Applicants' Exhibit 8, that  
16 provides a description of the quality assurance programs  
17 of HL&P and Brown & Root and I would think that would be  
18 an adequate basis for a description of the quality  
19 assurance program. I don't see any need for anything  
20 else.

21 MR. SINKIN: Mr. Chairman, first of all, I  
22 have not made any effort to involve the State of Texas  
23 in this dispute. I certainly would be happy to approach  
24 the State of Texas about providing an affidavit as to  
25 what they thought they were getting in discovery. I was

1 hoping to avoid that.

2 As far as Applicants' Exhibit 8 in Phase I,  
3 that is essentially the implementing document, how the  
4 various aspects of quality assurance will be  
5 implemented; whereas, this quality assurance manual is  
6 more the requirement document, what is required of a  
7 quality assurance plan. We find that there are  
8 significant differences between the two documents and  
9 that this document is what we want in the record to  
10 illustrate the point that we want to make and it cannot  
11 be illustrated with Applicants' Exhibit 8.

12 JUDGE BECHHOEFER: Does the Staff have any  
13 view of this?

14 MR. REIS: The Staff views discovery as  
15 closed. Discovery closed a long time ago. I don't see  
16 why there should be any reward for failure to engage in  
17 discovery previously.

18 JUDGE BECHHOEFER: Well, let me -- for this  
19 purpose I think we ordered CCANP to be bound by Texas'  
20 discovery in this regard, so --

21 MR. GUTTERMAN: Mr. Chairman, could I just  
22 mention something about that and that's just that there  
23 was an extensive opportunity for discovery. Discovery  
24 closed. The State of Texas then asked for it to have an  
25 extended period for discovery since there had been a

1 change of administration in the State of Texas and the  
2 State had a renewed interest in the proceeding it hadn't  
3 had during the period for discovery.

4 So, CCANP had a full opportunity for discovery  
5 before the State ever took any discovery. And it's true  
6 that the Board did not reopen discovery for CCANP after  
7 that time, but there was an ample opportunity to --

8 JUDGE BECHHOEFER: We did, but we subjected it  
9 to what Texas --

10 MR. GUTTERMAN: To certain limitations.

11 JUDGE BECHHOEFER: -- what Texas had done. We  
12 didn't want you to have to produce the same documents  
13 again for CCANP that you had produced for Texas, so --

14 The Board has decided that we will treat CCANP  
15 72 as that which was in effect on the date in May '81,  
16 unless we are shown to the contrary. And if the  
17 Applicants want to show us to the contrary, we will  
18 accept that. But, otherwise, we will accept CCANP 72 as  
19 what was in effect, at least the sections to which we've  
20 had testimony about.

21 MR. GUTTERMAN: Mr. Chairman --

22 JUDGE BECHHOEFER: We will presume it was in  
23 effect unless we're shown to the contrary.

24 MR. GUTTERMAN: Can I make an inquiry about  
25 that? That's a document of I don't know how many pages,

1 but there are several pages involved, and I --

2 JUDGE BECHHOEFER: I was thinking mostly of  
3 the sections -- Mr. Sinkin did not express an interest  
4 in the whole document.

5 Did you?

6 MR. SINKIN: A fifteen-page excerpt.

7 MR. GUTTERMAN: I was just wondering if we  
8 could have some more narrow definition of what  
9 particularly about this document the Applicant is going  
10 to be bound by if it doesn't rebut.

11 One of my problems in discussing this issue  
12 with Mr. Sinkin off the record is that he's been  
13 unwilling to explain to me what the purpose of the  
14 document is so that I can help him find a way to  
15 accomplish his purpose. And if we could just have some  
16 definition of what particular parts of this document are  
17 at issue.

18 JUDGE BECHHOEFER: Well, I believe he  
19 mentioned that section 3.2, design responsibility, and I  
20 thought there were one or two others. I haven't checked  
21 the specific sections.

22 MR. SINKIN: Page 3, descriptions -- page  
23 3-14, the description of design description and  
24 technical reference document.

25 In general, Mr. Chairman, the document

1 demonstrates what quality assurance was concerned about  
2 in the area of design and engineering and we will link  
3 those directly to the findings of the Quadrex report and  
4 demonstrate that the Quadrex report was obviously a  
5 quality assurance document.

6 JUDGE BECHHOEFER: But you are limiting it to  
7 the fourteen pages?

8 MR. SINKIN: Just this excerpt. You only have  
9 fourteen? We might check that.

10 JUDGE BECHHOEFER: Well, we have an  
11 introduction.

12 MR. SINKIN: There's an introductory sheet.

13 JUDGE BECHHOEFER: And then fourteen pages.

14 MR. SINKIN: And then fourteen pages, that's  
15 correct.

16 JUDGE BECHHOEFER: Well, if you can obtain or  
17 if you know that there are differences in those fourteen  
18 pages, it's apparently one section of the manual --

19 MR. GUTTERMAN: At this point, Mr. Chairman --

20 JUDGE BECHHOEFER: -- Section 3.

21 MR. GUTTERMAN: -- I don't know if I have the  
22 preceeding volume. I don't know if there are  
23 differences. I'll just have to check on what's  
24 available.

25 JUDGE BECHHOEFER: Okay. Well, I think we

1 will hold off technically admitting it into evidence  
2 until later. Sometime before we adjourn we'll know  
3 whether there's any differences.

4 Okay. Any further preliminary matters?

5 MR. SINKIN: No, Mr. Chairman.

6 JUDGE BECHHOEFER: I guess you may proceed  
7 with your cross-examination.

8

9 JEROME H. GOLDBERG,  
10 having been previously duly sworn, testified further  
11 upon his oath as follows:

12

13 CROSS-EXAMINATION (Cont'd)

14 BY MR. SINKIN:

15 Q Mr. Goldberg, I would ask that you look at  
16 Exhibit CCANP 83 we marked for identification yesterday,  
17 if your counsel will provide you with that. It's a  
18 rather lengthy document, Mr. Goldberg, and I don't want  
19 to take the time to walk through the whole thing unless  
20 it's necessary.

21 At the top of this document it says  
22 discussions among STP participants regarding replacement  
23 of architect/engineer and construction manager. While  
24 the document is dated September 22nd, 1981, the first  
25 line says at 1:00 p.m. on September 12th, 1981, the

1 following representatives of the participants met to  
2 discussion this subject, and lists the attendees.

3 Is it your recollection that on September 12th  
4 there was a discussion among the STP participants as to  
5 the replacement of Brown & Root as architect engineer  
6 and construction manager?

7 A That is correct.

8 Q And does this document purport to be the  
9 minutes of that meeting?

10 A Yes, it does.

11 Q And you were in attendance at that meeting?

12 A Yes, I was.

13 Q Calling your attention to the second full  
14 paragraph, maybe it's the third full paragraph on the  
15 first page starting "Mr. Oprea outlined," if you would  
16 just focus your attention for a moment on that  
17 paragraph.

18 Did you and Mr. Oprea attend a meeting with  
19 Region 4 Nuclear Regulatory Commission officials,  
20 including Mr. Seyfrit, which I believe is S E Y F R I T  
21 as opposed to the spelling in this document, and Mr.  
22 Collins? That's the end of the question, Mr. Goldberg.

23 A Yes, I did. I believe that was on September  
24 8th.

25 Q And at that meeting did the NRC inform you

1 that they were leaning in the direction of a decision  
2 that the Quadrex report required a 50.55(e) report by  
3 HL&P on an engineering control breakdown under Criterion  
4 7?

5 A As I recall the conversation, the NRC asked  
6 the question have you considered whether or not the  
7 entire report ought to be filed as the 50.55(e).

8 Q And who asked that question?

9 A I'm not absolutely sure. My feeling was it  
10 probably was Mr. Seyfrit.

11 Q Did Mr. Seyfrit or any other member of the NRC  
12 express their view as to whether that report should be  
13 turned over?

14 A No, there was no discussion about turning it  
15 over except in the context have you considered whether  
16 or not the entire report should be the subject of a  
17 50.55(e). That was the question that was given to the  
18 licensee at that particular meeting.

19 We indicated in response to that question that  
20 that had been considered and that should other  
21 information development that would cause us to believe  
22 that that's an appropriate course of action, then such  
23 an action would be undertaken.

24 Q On September 8th, 1981, you were still  
25 gathering information that would influence your final

1 decision on whether to turn the entire report over to  
2 the Nuclear Regulatory Commission?

3 A Well, I think it's fair to characterize that  
4 there were a number of follow-up actions after we had  
5 received the Quadrex report. Brown & Root was tasked  
6 initially to go about the business of providing the plan  
7 of action on addressing these issues. In the course of  
8 carrying out a plan of action, it is distinctly possible  
9 that certain areas that were not clear might come into  
10 better focus and might well support the view that maybe  
11 the entire report needed to be placed into the NRC under  
12 a 50.55(e).

13 Q So, you yourself still considered on September  
14 8th the possibility that information might develop that  
15 would influence you to turn the report over to the NRC  
16 staff?

17 A That was certainly in the realm of  
18 possibility.

19 Q On page 2, Mr. Goldberg, down at the paragraph  
20 beginning at 2-24, "Mr. Newman began," if you would  
21 focus your attention for a moment on that paragraph.

22 Was this the first time on September 12th that  
23 you had heard of the possibility that replacing Brown &  
24 Root as architect engineer might require a construction  
25 permit amendment?

1           MR. REIS: I object. It's not probative of  
2 the issues here. Whether it requires a construction  
3 permit change or not require a construction permit  
4 change has nothing to do with the issues in this  
5 proceeding. We're not going to go into -- I don't think  
6 it's proper to go into the legal issues of when a  
7 construction permit change might be required or might  
8 not be required.

9           MR. SINKIN: I didn't raise the question as a  
10 legal issue, Mr. Chairman, I was raising it to find out  
11 Mr. Goldberg's knowledge of that as a potential  
12 problem. I'm not going to ask for his opinion on  
13 whether a construction permit amendment was necessary,  
14 I'm trying to seek out his knowledge about licensing  
15 difficulties, when was he aware of certain licensing  
16 difficulties as a potential, not whether they were real  
17 or not.

18           JUDGE BECHHOEFER: Now, how does that bear on  
19 the issues in this proceeding?

20           MR. SINKIN: We have testimony in the record  
21 already from Mr. Goldberg that one of the questions that  
22 came up about changeover was regulatory uncertainty.  
23 And I wanted to see when he became aware of regulatory  
24 uncertainty and this is one of those regulatory  
25 uncertainties.

1 MR. REIS: I don't -- I'll let the Board --

2 JUDGE BECHHOEFER: I think we will overrule  
3 the objection, even though it's rather peripheral. We  
4 will let him answer.

5 Q (By Mr. Sinkin) Do you remember the question,  
6 Mr. Goldberg?

7 A Yes, I do. If I could take a moment, I wanted  
8 to just kind of benchmark my own recollection.

9 Q Could I ask what you're using to refresh your  
10 memory?

11 A Well, I'm taking a look at the request for  
12 proposal that I prepared that was issued back in July,  
13 and I wanted to see exactly how we had counseled with  
14 perspective contractors regarding matters that might  
15 relate to licensing activities.

16 Q I can perhaps help you, Mr. Goldberg. I think  
17 we're looking at the same thing. On page 3 of the  
18 request for proposal on I guess the -- yes, page 3 at  
19 item K. Are we looking at the same --

20 A Yes, I had read that. I just wanted to see  
21 whether there was anything else in the document.

22 Well, in answer to your question, I believe  
23 that this matter had certainly been discussed to some  
24 degree before the meeting. We had met with each of the  
25 perspective contractors that were being considered for

1 the work, of course, prior to this particular meeting.  
2 And during the dialogue at those meetings, Mr. Newman  
3 was present on a number of occasions and we certainly  
4 wanted to make sure that the engineers that we were  
5 talking to understood that we did not know, that we did  
6 not know all the answers in terms of how the NRC would  
7 require that we go about replacing the engineer.

8 It was distinctly possible that we may have to  
9 have a public hearing. It may be possible that we have  
10 to have a CP amendment. If those kinds of things might  
11 occur, it might delay the point in time that a new  
12 engineer could become the engineer of record. And there  
13 may well be a need to have the new engineer come in and  
14 basically function only in theory. We would still have  
15 to continue to use the engineering services of Brown &  
16 Root.

17 So, we made it a point to explain that we  
18 didn't have all the answers, that until we had reached  
19 the point where we had made the decision to go forward,  
20 once that decision were made, then we'd notify the  
21 Nuclear Regulatory Commission and then we'd come to  
22 understand what licensing problems we might face.

23 Q Just so the record is clear, the request for  
24 proposal is the back part of CCANP 78. That's what you  
25 were looking at?

1           A     That is correct.

2           Q     The minutes of the September 12th meeting that  
3 we are looking at go on at the bottom of page 2 to state  
4 that the discussion at this point drifted to the  
5 possibility of a new engineer eventually having to take  
6 over the construction as well. Do you remember that on  
7 September 12th the question of the new engineer taking  
8 over as constructor as well came up?

9           A     Well, as a matter of fact, it didn't come up  
10 quite as a question. I believe that I brought that  
11 matter up. Clearly we had no way of knowing at the  
12 point in time that we would advise Brown & Root of a  
13 pending change whether or not they would be willing to  
14 stay on as a constructor. That clearly was a question  
15 that we couldn't answer. We had had no dialogue with  
16 Brown & Root.

17                     We believed, and I think Mr. Jordan mentioned  
18 a few of these points in his testimony, that Brown &  
19 Root could do the job. They had certainly addressed the  
20 quality concerns of the earlier phases of the job which  
21 led to the show cause order. We believed that with the  
22 presence of an experienced construction manager to take  
23 charge of the planning of the construction work, that  
24 Brown & Root would do a considerably good job.

25                     We were concerned that Brown & Root had a lot

1 of good trained resources, people that had been on the  
2 job for many years who had been trained in the following  
3 of Brown & Root construction procedures. These were all  
4 valued resources that were in place. We were hopeful  
5 that they'd stay on, but we had no way of knowing  
6 whether they would.

7 Q Over on page 3, Mr. Goldberg, the second full  
8 paragraph starting "Mr. Jordan inquired." Was the  
9 possibility that if Brown & Root was replaced as the  
10 constructor the job might well be shut down in your mind  
11 before you went to the September 12th meeting?

12 MR. AXELRAD: Mr. Chairman, I believe we've  
13 had these kinds of questions before and I believe the  
14 objection has been raised and I think sustained by the  
15 Board that the question of replacing Brown & Root as a  
16 constructor and the various considerations that might go  
17 into that are really not germane to the issues before us  
18 which involve whether or not the company should have  
19 informed the NRC of the Quadrex report and/or the  
20 potential replacement of Brown & Root, and that whether  
21 or not there were concerns about what might take place  
22 if they were replaced as constructor also are not  
23 pertinent here.

24 MR. PIRFO: I think this evidence is  
25 cumulative, too, Mr. Chairman. To the extent Mr. Sinkin

1 has been trying to prove that regulatory concern was, as  
2 he used the term earlier, in the mind of Mr. Goldberg or  
3 any of these people at the September 8th meeting, he's  
4 shown that fairly well by this point.

5 MR. SINKIN: September 12th.

6 MR. PIRFO: I'm sorry?

7 MR. SINKIN: September 12th.

8 MR. PIRFO: September 12th. To that extent,  
9 it's cumulative.

10 MR. SINKIN: I'll withdraw the question, Mr.  
11 Chairman.

12 I would move CCANP 83 into evidence at this  
13 time, Mr. Chairman.

14 JUDGE SHON: I wonder, if you're about to  
15 leave this, I'd like to ask Mr. Goldberg at least or  
16 someone --

17 MR. SINKIN: I am about to leave it.

18 JUDGE SHON: -- a couple questions about this  
19 document. The first thing is it's rather like some of  
20 the short stories Damon Runyon used to write, it's all  
21 in the first person, but you never find out what the  
22 name of the first person is.

23 Who wrote this? It's not signed. Or do you  
24 know who it is? It says and the writer, but --

25 THE WITNESS: The minutes of the management

1 committee meetings are the secretary's and Mr. Charles  
2 Thrash's. Now, to be very honest, Judge Shon, I can't  
3 say with absolute certainty whether he was the one who  
4 wrote these minutes, but he's generally the gentleman  
5 who writes the minutes.

6 JUDGE SHON: The second thing I note as  
7 strange, the second full paragraph, or perhaps as Mr.  
8 Sinkin said perhaps you should count it as the third,  
9 the last sentence beginning, "Mr. Oprea reported that  
10 the NRC was leaning in the direction of the decision  
11 that the Quadrex report required a 50.55(e) report by  
12 HL&P on an," and then it's in quotes, "engineering  
13 control breakdown," that's not the term of art that  
14 anybody has been using as far as I know. A quality  
15 assurance breakdown or something like that. Where did  
16 that term come from and what does it mean?

17 MR. NEWMAN: Judge Shon, may I help to address  
18 that?

19 JUDGE SHON: Yes.

20 MR. NEWMAN: I had precisely the same  
21 difficulty in admitting the document in evidence other  
22 than as it purports to be some minutes prepared by Mr.  
23 Thrash. It's obvious that the document cannot be  
24 admitted for the truth of the matters stated therein  
25 because, as you have just pointed out, for example, the

1 terminology is not accurate, even the citation to the  
2 criterion involved is not accurate. And, so, I think  
3 what you have is something which represents somebody's  
4 best effort to capture what might have been said at a  
5 meeting, but I don't believe we would be prepared to  
6 stipulate that all of the matters stated therein are  
7 true or have been truly reported in those minutes.

8 JUDGE SHON: Well, of course, the next thing I  
9 was going to ask is what is Criterion 7. And I guess  
10 the answer is we just don't know who wrote it or what he  
11 meant by some of the terminology he used, or she if it  
12 was a woman. I believe that it's really referring to  
13 Appendix B, Criterion 7, which is the criterion that  
14 extends the quality assurance to vendors and  
15 subcontractors and people like that. But that isn't  
16 what determines a 50.55(e) report, so I don't -- again,  
17 it's used in a peculiar context.

18 Anyhow, I guess the answer is we just don't  
19 know, is that right, Mr. Goldberg, or you don't know?

20 THE WITNESS: I can't comment on that, Judge  
21 Shon. There are some, from time to time, perceptions by  
22 the secretary that if they get picked up and review the  
23 minutes, they're corrected; if they don't, they don't.

24 JUDGE BECHHOEPER: Does the Staff have any  
25 view on this document? The Board will --

1 MR. PIRFO: I'm not sure what the question is  
2 pending before the Board right now.

3 JUDGE BECHHOEFER: There is a motion for  
4 admitting it into evidence.

5 MR. PIRFO: No objection. I have some views  
6 on it, but as far as an objection, no.

7 JUDGE BECHHOEFER: The Board will tend not to  
8 admit it for the truth at this point. We may ask some  
9 questions of Mr. Oprea when he gets here and if he can  
10 identify it further, possibly it will go to the truth,  
11 but I don't think at this point it can. It can be  
12 admitted with the qualification that it would be to  
13 illustrate the matters that Mr. Goldberg was testifying  
14 about. Mr. Goldberg's answers on these questions are  
15 perfectly acceptable.

16 MR. PIRFO: The Staff having heard that,  
17 Chairman Bechhoefer, I think that -- well, in truth -- I  
18 mean, what I've heard from the Applicants, that all goes  
19 to weight and that can be remedied on redirect. I don't  
20 think that's any qualifier to its admission.

21 (No hiatus)

22

23

24

25

1 MR. SINKIN: I recognize the problem being  
2 raised by Mr. Pirfo. If they think there's something in  
3 here that is not true, they can certainly cure that on  
4 redirect.

5 MR NEWMAN: Mr. Chairman, the document, if Mr.  
6 Sinkin wants to get the document into evidence for the  
7 truth the matter stated therein, there are many matters  
8 stated in this. He should have taken the opportunity to  
9 determine who prepared the minutes, produced the  
10 individual. Mr. Goldberg's obviously not prepared to  
11 certify the accuracy of everything contained in these  
12 minutes.

13 As the Chair and Judge Shon and others have  
14 pointed out, on particular matters which are germane to  
15 the proceeding in which the Board or parties may wish to  
16 inquire into, for example Mr. Oprea's statement, Mr.  
17 Oprea will be here. To the extent that the Board or the  
18 parties wish to inquire into Mr. Goldberg's statement,  
19 Mr. Goldberg is here.

20 The document can't be admitted or introduced  
21 into evidence for anything more than that purpose.

22 As I say, I have no objection to its admission  
23 as long as we understand what it's admitted for.

24 JUDGE BECHHOEFER: At the moment, at least, we  
25 will admit it but not for the truth of everything stated

1       therein. That may be subject to reconsideration after  
2       we've heard from Mr. Oprea, depending on what he knows  
3       about these minutes.

4           Q       (By Mr. Sinkin) Mr. Goldberg, were you sent  
5       the minutes of this meeting after they were generated by  
6       Mr. Thrash?

7           A       I'm not real sure. And the reason I say that  
8       is for this reason. When these minutes were prepared, I  
9       was known as the alternate member of the management  
10      committee, not HL&P's primary member.

11                  From time to time, I would get them for review  
12      and review them or not review them or not even get them;  
13      the primary member, of course, would get them all. And  
14      the primary member has the option of personally reviewing  
15      it or reviewing it and asking the alternate member to  
16      review it as well, or delegate the review responsibility  
17      to the alternate.

18                  And I can't say with absolute precision whether  
19      I even got them, you know, for review prior to their  
20      issue. At this particular point in the activities of the  
21      project, I was personally working in a rather dense and  
22      tenuous area of activity. I spent many hours dealing  
23      with a host of problems and I just don't know whether I  
24      even found the time to bother to look at those minutes.

25           Q       Who was the primary representative on September

1 12th?

2 A That would have been Mr. Oprea.

3 Q Were these minutes kept as a routine thing at  
4 Houston Lighting & Power; was there a file kept of these  
5 minutes?

6 A There is a file that we do keep of the  
7 management committee minutes, that is correct.

8 Q There is a file that you keep of the management  
9 committee minutes at HL&P?

10 A That is correct.

11 MR. NEWMAN: That's not the question, Mr.  
12 Chairman.

13 MR. SINKIN: I'm sorry, that HL&P keeps of the  
14 management committee --

15 A HL&P has a file which contains the management  
16 committee minutes.

17 MR. SINKIN: Mr. Chairman, I think, then, that  
18 this record is admissible as a business record of HL&P,  
19 kept in the routine course of business --

20 JUDGE BECHHOEFER: Let me raise one problem  
21 that I see. Mr. Newman, Mr. Axelrad, will you show Mr.  
22 Goldberg -- there are a number of documents, but one I  
23 pick out is like No. 12 in your first -- this is just as  
24 an example, something that looks like this. My question  
25 is: Don't minutes look more like this than like the

1 other? I just picked up No. 12 at random.

2 MR. SINKIN: Mr. Chairman, you are asking he be  
3 shown an example of those management committee documents  
4 that are very sketchy in detail?

5 JUDGE BECHHOEFER: Right. My question is don't  
6 the minutes look more like that than like CCANP 83.

7 THE WITNESS: Mr. Chairman -- may I answer that  
8 question? The minutes are more in the style of this  
9 exhibit.

10 MR. SINKIN: Could could you specify which?

11 THE WITNESS: 83. I personally -- the first  
12 time I think I've ever seen this style was that it had  
13 had come up to my attention and it was one of the matters  
14 that was supplied to the Board in preparation for this  
15 phase of the hearings. I have never seen these types of  
16 notes; they apparently represent Mr. Thrash's rough notes  
17 that he uses to later construct the minutes.

18 This is the style of the minutes that members  
19 of the management committee are privileged to see.

20 MR. AXELRAD: Mr. Goldberg, you've stated "this  
21 style" and "these notes." It's not possible for the  
22 record to know which document you're referring to. The  
23 ones, I believe, that you meant you have seen before are  
24 those which were the ones of the documents introduced to  
25 the Board such as No. --

1 THE WITNESS: Okay. This is one of our  
2 exhibits. Let me -- what's our exhibit number on this  
3 one?

4 MR. AXELRAD: What the witness was referring to  
5 is a document, document No. 12 that was produced for the  
6 Board on April 19, 1985, which later, I believe, became  
7 Applicant's Exhibit No. 59. Pirfo I didn't hear you.

8 MR. AXELRAD: Applicant's Exhibit No. 59.

9 THE WITNESS: So I was contrasting that the  
10 management committee minutes that are distributed to  
11 meetings of the management committee are of the form  
12 represented by CCAMP Exhibit 89 as opposed to the form  
13 represented by Applicant's Exhibit 59.

14 JUDGE BECHHOEPER: I was just picking that  
15 arbitrarily. There are a number of documents that look  
16 like Applicant's 59. But just to clarify my own mind,  
17 that helps.

18 Q (By Mr. Sinkin) Mr. Goldberg, did Mr. Thrash  
19 record those management committee meetings?

20 MR. AXELRAD: Mr. Chairman, I'm not sure I  
21 understand what the question "record" means.

22 MR. SINKIN: Tape record.

23 A No.

24 Q (By Mr. Sinkin) No.

25 MR. NEWMAN: Mr. Chairman, we now have a ruling

1 now on the limitations for the admission of the document  
2 we're ready to move on to another question. Is that  
3 correct?

4 JUDGE BECHHOEFER: Yes --

5 MR. SINKIN: I believe I asked that it be  
6 admitted as a business record and therefore would come in  
7 for the truth of the matter.

8 MR. NEWMAN: There is not the remotest  
9 testimony on the record nor any stipulation that would  
10 establish that that is a routine business record of the  
11 company. Mr. Sinkin has not done enough to establish  
12 that; there is nothing in the record to establish that.

13 JUDGE BECHHOEFER: Well, our decision was made --

14 MR. SINKIN: I'd like to respond to that. I  
15 think we have a different evidentiary argument going on  
16 than the original evidentiary argument after I asked Mr.  
17 Goldberg certain questions about the keeping of minutes  
18 at HL&P. I thought based on those questions, there was a  
19 basis for this document to come in as a business record,  
20 which would mean we would not have to have Mr. Thrash  
21 come and testify about this document.

22 MR. NEWMAN: This is just argumentative with  
23 the Board. I think it's time to move on to another  
24 question.

25 JUDGE BECHHOEFER: We have ruled. As I

1 mentioned, when Mr. Oprea gets here, he was obviously at  
2 the meeting and questions may be asked of him as to  
3 whether these are the proper minutes or not, or the only  
4 minutes, I should say. Until then, I think we've ruled.

5 Q (By Mr. Sinkin) Mr. Goldberg, on the paragraph  
6 on page one of CCANP 83 there is a discussion about Mr.  
7 Syphert and Mr. Collins there's a reference at the of the  
8 paragraph to quote "engineering control break down,"  
9 under criterion 7.

10 Could you give me your understanding of what  
11 that phrase as applied to in terms of 50.55(e)?

12 A I don't remember in the conversation with  
13 either Mr. Syphert or Mr. Collins any reference to this  
14 particular statement and I haven't referenced this  
15 statement, so I frankly can't begin to tell you what it  
16 means.

17 Q In your view, does criterion 7 of Appendix B,  
18 criterion 7 of Appendix B, apply to the control of  
19 services purchased by HL&P from Brown & Root?

20 A I'd like to look at criterion 7.

21 MR. AXELRAD: Mr. Sinkin, can you repeat the  
22 question, please.

23 MR. SINKIN: I want to give him a chance to  
24 review it rather than -- for you, Mr. Axelrad,  
25 I'm asking: Is it your view that

1 criterion 7 applies to services purchased by HL&P from  
2 Brown & Root.

3 A No, I believe this criteria is principally  
4 focused on the purchase of goods and services usually by  
5 the architect engineer.

6 Q (By Mr. Sinkin) Would it apply at all, in your  
7 view, to the services purchased by HL&P from its  
8 architect engineer?

9 A Yes, I believe it could apply in that context.  
10 Yes.

11 Q On page 42 of your testimony, Mr. Goldberg, if  
12 you will remember yesterday we were talking about this  
13 essential cooling pond finding. What I'd like to do is  
14 turn to question N-17 in Volume III of the Quadrex report  
15 which is Applicants' Exhibit 60.

16 MR. SINKIN: It's question N-17 in the third  
17 volume of the Quadrex report

18 JUDGE SHON: That's what I thought. We don't  
19 have that --

20 MR. SINKIN: You mentioned that.

21 JUDGE SHON: You mentioned an Applicants'  
22 Exhibit number.

23 MR. SINKIN: 60.

24 JUDGE SHON: 60. That's right.

25 THE WITNESS: Yes, I have that.

1 Q (By Mr. Sinkin) On the second page of that  
2 question, the first page is the Brown & Root response on  
3 the second page is the Quadrex assessment, and I want to  
4 call your attention to the Quadrex assessment.

5 Mr. Goldberg, have you finished? Yes, I am. I  
6 thought I saw you look up. Have you read that entire  
7 page or just that bottom paragraph?

8 A I read the bottom paragraph.

9 Q Oh, I'm sorry. You need to read from the top,  
10 because that's Quadrex talking, too.

11 Q All right.

12 A All right.

13 Q In your testimony, at Page 42, line 14 -- well,  
14 let's take answer 58 above that first. You talk about  
15 question N-17 which you have just reviewed, stating that  
16 Brown & Root should have analyzed the temperatures of the  
17 water in the essential cooling pond under -- and then you  
18 specify two conditions. The first is conditions of  
19 normal shutdown of two units, and the second is normal  
20 shutdown of one unit and a loss of cooling accident in  
21 the other unit.

22 Am I reading that correctly?

23 A That is correct.

24 Q In your answer 59 you say: Brown & Root had  
25 performed an analysis of the ultimate heat sink that did

1 consider the combinations of plant conditions identified  
2 in the NRC guidance.

3 Are those two plant conditions identified in  
4 the NRC guidance?

5 A Yes, they are.

6 Q Now, back to question N-17. About the middle  
7 of the first paragraph of the second page of question  
8 N-17,

9 is the statement by Quadrex: Brown & Root has not  
10 calculated normal shutdown of one unit in combination  
11 with normal operation of the other unit.

12 That seems to be a third condition that Quadrex  
13 was concerned about. Is that condition in the regulatory  
14 guide?

15 A It is not.

16 Q Quadrex was concerned that Brown & Root had not  
17 considered, if you look at the underlined sentence --  
18 Brown & Root was not concerned particularly about this  
19 condition because there was no need to keep one unit at  
20 full load during shut down of the other unit.

21 A As a regulatory matter, as a matter of safety,  
22 that is true. There's certainly no requirement that when  
23 you have one unit shut down that you must operate the  
24 other at full power. Those are commercial  
25 considerations, not safety considerations.

1 Q Is it conceivable that for commercial reasons,  
2 that condition would then arise where one unit was shut  
3 down and the other was operating at full power?

4 A I think in the distinct realm of possibilities,  
5 Mr. Sinkin, that with one unit shut down, it would  
6 potentially be very desirable to have the full  
7 availability of the other unit.

8 Q Quadrex says at the bottom of the first  
9 paragraph on that page, "Brown & Root calculations show  
10 that a higher heat load into the ECP for normal shut down  
11 than for LOCA."

12 I assume what they're saying is that if you  
13 have done the analysis, as you say in answer 58 Brown &  
14 Root had done, normal shutdown of one unit and a loss of  
15 cooling accident in the other unit, that you would have a  
16 higher temperature in the first condition that you point  
17 to which, is normal shut down of both units than you  
18 would if the LOCA condition. Is that your understanding?

19 A I'm not absolutely sure how the numbers came  
20 out. As I understand it, the two conditions create heat  
21 loads that are very close. The -- I do believe that  
22 there is a slightly higher heat contribution when you  
23 take down both units into a safe shutdown on a  
24 simultaneous basis versus accident conditions in one and  
25 a shutdown in the other.

1           Q     Now, in the bottom part on page N-17, question  
2 N-17, in the part titled Quadrex assessment, Quadrex says  
3 in the second sentence, "Based on the values in B&R  
4 calculations, simultaneous orderly shut down of both  
5 plants," which they say has not been analyzed, you say  
6 was analyzed," would violate tech spec limits.

7                     Now, why in your view, on May the 8th, was that  
8 not a potentially reportable deficiency?

9           A     Well, what are you referring to?

10          Q     I'm referring to based on the values in Brown &  
11 Root calculations, that second -- I mean you have to take  
12 it in the context the whole paragraph, obviously. But  
13 that particular conclusion by Quadrex that there could be  
14 a condition that would violate the technical  
15 specifications, why would that not be a potentially  
16 reportable deficiency?

17          A     Well, the best of our knowledge, both  
18 conditions had been analyzed as reported in the final  
19 safety analysis report. I believe that they just weren't  
20 able to locate the calculations that addressed the case  
21 of the safe shutdown of both units.

22                     Quadrex had made an indication that they had  
23 done some very preliminary numbers back in the envelope  
24 type calculations, and that had speculated that it may  
25 not fall within the tech spec limit.

1           Brown & Root was in the process of redoing the  
2 analysis; it seemed to me at that juncture it would have  
3 been premature to believe this to be a reportable  
4 problem.

5           Q     Mr. Goldberg, I'm going to call your attention  
6 to a document Applicants' 57. The last page -- excuse  
7 me, wrong. Applicants' 89 -- hold it, hold it. I'm  
8 right the first time, Applicants' 57, the last page.

9           MR. AXELRAD: Are we still on the ECP or can we  
10 put away the ECP?

11           MR. SINKIN: You can put away the ECP.

12           Q     (By Mr. Sinkin) Are you with me, Mr. Goldberg?

13           A     Are we on the page that wasn't really part of  
14 that basic --

15           Q     That's correct.

16           A     -- document?

17           Q     That is correct. In your prior testimony, Mr.  
18 Goldberg, you have talked on more than one occasion about  
19 weaknesses in the Brown & Root design and engineering  
20 program and one of those weaknesses being an absence of  
21 adequate technically skilled people.

22                     Is this a list that you prepared as to where,  
23 by the title, special technical skills might be sorely  
24 lacking on the STP Brown & Root team?

25           A     It represents skills that I believed either

1 Brown & Root didn't have sufficient in-house expertise  
2 and therefore was totally dependent on outside  
3 assistance, or areas where they had a degree of  
4 capability and I felt it needed to be strengthened.

5 Q Could you just walk through relatively quickly  
6 and tell me which one of these you thought they were  
7 totally dependent on someone else?

8 A All right. Starting with the first item, they  
9 had some degree of ASME 3 code expertise. We felt that  
10 was an area that ought to be strengthened.

11 In item two, we felt they were very weak in  
12 nuclear heating ventilation and air conditioning  
13 technical capability. They were doing that in-house; we  
14 felt they clearly had to significantly strengthen that  
15 first.

16 They were totally dependent upon outside  
17 expertise for what I call "real solid nuclear coatings  
18 knowledge." They had used a variety of consultants, and  
19 we were pressing them to hire their own coatings expert.

20 Nuclear analysis, I believe, we've addressed on  
21 a number of occasions, that they had very limited  
22 capability. They were heavily dependant on NUS, so much  
23 so that I believe that some of the difficulties that  
24 Quadrex experienced in understanding how some of the  
25 analysis was performed was a direct result of not having

1 some of the NUS engineers present who had performed those  
2 analyses.

3 Under the engineering planning and scheduling  
4 and performance measurement category, they basically had  
5 just gotten what I perceive was their first really  
6 seasoned professional in the area of planning and  
7 scheduling and performance measurement. And I don't mean  
8 performance measurement here in the context of the  
9 quality as much as I mean in the context of where are  
10 they in terms of actual progress.

11 So that was an area that they had just gotten  
12 started on building what I believe was the kind of  
13 organization they needed.

14 Test engineering was an area they'd have to  
15 build some expertise, but we were not heavily involved at  
16 this particular juncture in the tests activities. To the  
17 degree they needed the expertise was the degree to  
18 support a test program.

19 With respect to the next comment, which is item  
20 six, that's kind of a catch all, a little bit of  
21 motherhood. They were very weak in subcontract technical  
22 administration, from a commercial standpoint. Some of  
23 these subcontracts in terms of dollar value were bigger  
24 than some whole contracts that Brown & Root had handled  
25 in the past, and we felt they needed some stronger

1 contract administrators to handle those contracts.

2 Q Thank you, Mr. Goldberg. What I'd like to do  
3 is remove that page and have it marked as CCANP 89 and  
4 move that page into evidence as a separate document.

5 JUDGE BECHHOEPER: It's already in evidence.

6 MR. SINKIN: Well, then just have that page  
7 marked. Okay, we've identified it, I'm just concerned --  
8 okay, we can do it that way. We've identified it as  
9 Applicants' Exhibit 57, page six. That's fine.

10 (Discussion off the record.)

11 (No Hiatus.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 JUDGE BECHHOEFER: Back on the record.

2 Q (By Mr. Sinkin) Mr. Goldberg, turning in your  
3 testimony to page 51, at line 18, you state that when  
4 you met with Mr. Jordan and Mr. Oprea on May the 11th,  
5 you told them about the large amount of design work yet  
6 to be performed, especially the lack of analyses to  
7 confirm the preliminary design.

8 Can you tell me which -- what did you tell  
9 them in terms of lack of analyses to confirm the  
10 preliminary design?

11 A I'm not sure I'll be able to recount all the  
12 elements, but certainly some of the things that were  
13 done, as they are done in every design, is there are  
14 preliminary assessments of the NSSS loads as it serves  
15 to provide input for the person who has to design the  
16 NSSS supports. Now, the loads come from Westinghouse  
17 and they have to be utilized by Brown & Root in the  
18 design of equipment. Usually the first loads are very  
19 conservative and further analysis is undertaken to  
20 develop that interface to a much greater degree of  
21 precision.

22 The sizing and predictions of temperatures and  
23 such things like cooling ponds are oftentimes matters  
24 that have to be reconfirmed. There was evidence that  
25 that required further analysis. Brown & Root, in fact,

1 was in the process of doing it.

2 There was a significant amount of work that  
3 lie ahead associated with the fitting of TMI items into  
4 the design.

5 There was the matter of the analysis of pipe  
6 break outside containment.

7 There was a substantial amount of design work  
8 that lie ahead which consisted of confirmation of a  
9 variety of preliminary work done by Brown & Root, as  
10 well as work that had not yet been started.

11 Q I was going to point out, you included in lack  
12 of analysis to confirm the preliminary design the pipe  
13 break outside containment. You wouldn't include it in  
14 that category in a sense --

15 A That represented work that had to be  
16 undertaken, but it was of an analytical nature and it  
17 just had a bearing on the total analytical work load  
18 that lie ahead.

19 Q Right. The first one you mentioned was the  
20 NSSS loads. Were there difficulties in the Westinghouse  
21 and Brown & Root interface at that time in May of 1981?

22 A When you say difficulties, I'm not quite sure  
23 in what context you're referring.

24 Q Was the interface operating smoothly?

25 A Oh, I have a feeling that the interface was

1 operating probably similar to interfaces between other  
2 AE's and Westinghouse. Westinghouse had to serve the  
3 needs of many projects. To a large extent sometimes you  
4 didn't always get the level of attention that you wished  
5 and you had to persevere and continue to pursue those  
6 kinds of matters to make sure that your needs were being  
7 taken care of. I'm sure some of that problem was  
8 attendant. If it wasn't, it would be very unusual.

9 As far as some extraordinary problem between  
10 that interface, I don't think so. I think that it had  
11 probably the same challenge as what is somewhat  
12 commonplace in projects.

13 Q In the meeting on May 11th with Mr. Oprea and  
14 Mr. Jordan, did you discuss the potential release of the  
15 entire Quadrex report to the public?

16 A Not at all.

17 Q But you personally believed that release to  
18 the public would cause problems; is that correct?

19 A I think it's fair to say that if you took a  
20 document that contained a lot of preliminary information  
21 which had not yet been placed in proper perspective,  
22 that clearly once a document of that type is made  
23 available to a broader spectrum of readers, that you're  
24 clearly going to be inundated with a lot of questions  
25 because there is a lot of questions to be answered.

1 Q More specifically, if you had filed the entire  
2 report as a 50.55(e), was it your knowledge on May the  
3 8th, 1981, that I was receiving 50.55(e) reports filed  
4 by HL&P?

5 A Mr. Sinkin, I don't think I had any special  
6 knowledge as to what you were receiving in 1981. I  
7 don't think that was a particular issue. I think that,  
8 you know, any person is capable of asking questions  
9 about a document. I don't think I gave any special  
10 attention to you.

11 Q Did you discuss in this time period, May,  
12 June, July, 1981, did you discuss with Mr. Jordan and  
13 Mr. Oprea whether release of the Quadrex report to the  
14 NRC or to the Licensing Board would create a problem  
15 because it would get out to the public?

16 A I think I endeavored to answer that question,  
17 unless my memory serves me incorrectly.

18 Q The original question was focused on May  
19 11th. Now --

20 A I beg your pardon.

21 Q My original question of that type was focused  
22 on the May 11th meeting of the three of you. This  
23 question said in May, June, July, did you have that kind  
24 of discussion with Mr. Oprea or Mr. Jordan?

25 A To the best of my knowledge, Mr. Sinkin, we've

1 never had that kind of discussion, per se.

2 Q Did you have that kind of discussion with  
3 anyone else about the release of the Quadrex report  
4 getting out to the public causing problems in that May  
5 period?

6 A Oh, I think it's quite possible that Mr.  
7 Robertson and I may have had some dialogue of that  
8 type. You know, when we were meeting to decide on the  
9 subject of reportability, we were reviewing individual  
10 items and we were also sensitive to patterns of  
11 problems. And there's no question in my mind that if  
12 there had been patterns of significant breakdown in the  
13 design process, that I feel reasonably confident that  
14 that would have signaled that we had best file that  
15 report.

16 Q I understand that. I'm really focusing on the  
17 discussion about releasing the report would create  
18 problems of perception out for the public. Are you  
19 saying you had that kind of conversation with Mr.  
20 Robertson?

21 A That might possibly have come up in the  
22 conversation because when you start to indicate what you  
23 might do given certain information, you can always  
24 somehow start reflecting on, well, you know, why don't  
25 we just gratuitously do something, is there any

1 undesirable aspects of just volunteering for something  
2 that you don't really think you need to do. It's  
3 possible that came up in conversation. I don't really  
4 recollect.

5 Q Mr. Goldberg, I'm going to show you an answer  
6 provided in Applicants' answers and objections to State  
7 of Texas' first set of interrogatories to Applicants on  
8 Quadrex. The answer is interrogatory 55. I'm going to  
9 ask you to read into the record the interrogatory and  
10 the answer and then I will ask you if you agree with  
11 that answer.

12 It's a very discreet inquiry, Mr. Goldberg.

13 A This is interrogatory 55. "On April 7th,  
14 1982, Mr. Goldberg sent a letter to Mr. Halligan of  
15 Bechtel Power Corporation (ST-HL-YB-0507) in which Mr.  
16 Goldberg stated, 'In this connection, please note that,  
17 although it may not be evident by reading the Quadrex  
18 report due to its lack of explicit detail, three items  
19 (line items 1, 103, 146) are also related to  
20 deficiencies reported to NRC prior to the Quadrex  
21 review.'" Please explain how each line item is related  
22 to the reported deficiency.

23 "Answer: Line item 1 refers to a Quadrex  
24 finding that the Brown & Root structural group does not  
25 appear to question the reasonableness of the input data

1 regarding margin. While Quadrex did not identify it  
2 specifically, HL&P had previously reported in September  
3 1983 to the NRC a condition of 'underdesigned beam  
4 connections for Category 1 structural steel' which  
5 resulted from inadequate design input.

6 "Line item 100 relates to a Quadrex finding  
7 that refinement of the reactor cavity cooling pressure  
8 drop calculation appears to be necessary. HL&P had  
9 previously notified the NRC in October 1980 of a concern  
10 relative to 'cooling of primary shield penetrations.'

11 "Line item 146 related to a Quadrex finding  
12 that the auxiliary feedwater pump motors to be located  
13 at a low elevation in the isolation valve cubicle may  
14 not be qualified for the currently postulated accident  
15 environment. HL&P had previously notified the NRC in  
16 August 1980 of a concern relative to the auxiliary  
17 feedwater pump qualification."

18 Q Do you have any problem with that answer being  
19 correct, Mr. Goldberg?

20 A No.

21 Q And the letter referred to in this  
22 interrogatory is a letter that was marked for  
23 identification yesterday as CCANP 86?

24 A Yes, that's similar to the last paragraph in  
25 my letter which is marked as your Exhibit CCANP 86.

1 Q The identification in the interrogatory is  
2 April 7th, 1982, Goldberg to Halligan. Is that the same  
3 as that exhibit?

4 A Yes.

5 MR. SINKIN: Mr. Chairman, I would move CCANP  
6 86 into evidence.

7 MR. AXELRAD: No objection, Mr. Chairman.

8 MR. PIRFO: No objection from the staff.

9 JUDGE BECHHOEFER: Okay. CCANP 86 will be  
10 admitted.

11 Q (By Mr. Sinkin) Mr. Goldberg, on page 52,  
12 question 82 at the top. By the word secret in that  
13 question do you also intend to respond to the word  
14 confidential? Is that in your mind the same as secret?

15 A Well, I think in my mind I would connote  
16 that either of those words might be used to secure  
17 indiscriminate disclosure of a document.

18 Q Well, specifically in your answer at line 7  
19 you say there was no instructions that it be kept  
20 secret. Would you also say that there were no  
21 instructions that it be kept confidential?

22 A To the best of my knowledge, I'm not aware of  
23 any instructions to keep that document classified in  
24 those categories. The only guidance that I ever  
25 prescribed was that this document would be available for

1 review by the Nuclear Regulatory Commission. That was  
2 the information that I conveyed to Mr. Selis.

3 In fact, I think yesterday I conveyed the  
4 notion that it was available for his reading at his  
5 leisure. The connotation was meant to mean it was  
6 available for the NRC's review at whatever time the NRC  
7 chose to make that review. I'm not sure I ever used the  
8 words at somebody's leisure. There's not much leisure  
9 time in the nuclear business.

10 Q Okay.

11 A But that was the only caveat. We had not  
12 chosen to gratuitously file this report with the Nuclear  
13 Regulatory Commission, but we were careful to identify  
14 that it existed, what the subject of the report was, and  
15 that it was available for their review at any time,,  
16 including the day they were informed that that report  
17 existed.

18 JUDGE BECHHOEPER: Mr. Goldberg, on page 52,  
19 do those -- do the words individuals who would have a  
20 reason to want the information contained in it indicate  
21 that HL&P was putting some sort of a need to know  
22 classification on the document?

23 THE WITNESS: Mr. Chairman, I don't believe  
24 so. That was a very sizable document and I think that  
25 the copies that were made available were for the people

1 who really needed to use it. These were engineers on  
2 the project, certainly a large number of engineers at  
3 Brown & Root. We had copies available in the office for  
4 Mr. Sumpter, Dr. Sumpter, Mr. Robertson and myself.

5 I guess it's fair to say that we didn't  
6 distribute this document to all the employees of the  
7 nuclear group. We distributed it to those people who we  
8 had reason to believe had a need to use it. I wouldn't  
9 classify it as need to know in that context that, you  
10 know, there was some fear that others would get to know  
11 it that shouldn't get to know it. It was a pretty  
12 sizable document to just run off literally hundreds of  
13 copies.

14 Q (By Mr. Sinkin) What was Mr. Barker's  
15 position at this time, May of '81?

16 A Mr. Barker was the HL&P South Texas Project  
17 manager.

18 Q And was he provided a copy of the report at  
19 that time?

20 A I don't really know.

21 Q Do you know if at some later time Mr. Barker  
22 was given a copy?

23 A I frankly don't know who exactly got all the  
24 copies, either the day we got the report or at any point  
25 thereafter.

1 Q On May the 8th did you direct that Mr.  
2 Overstreet receive a copy?

3 A I don't recall directing who ought to get  
4 copies. I do recall that enough copies were made  
5 available to the Brown & Root engineering team, to the  
6 HL&P engineering team, certainly to Mr. Robertson, Dr.  
7 Sumpter, myself. I suspect copies were made available  
8 to a host of other persons, but I wasn't in charge of  
9 document distribution. I didn't write out a  
10 distribution. I didn't ask who all got the report.

11 To the best of my recollection, distribution  
12 of the report emanated from Dr. Sumpter's office. He  
13 may have some recollection as to who all got the  
14 report. I certainly can't speak to that.

15 Q Did you give any specific instructions that  
16 the quality assurance department be provided with a copy  
17 of the Quadrex report?

18 MR. AXELRAD: I think that was asked and  
19 answered, Mr. Chairman. Mr. Goldberg testified he  
20 didn't direct the distribution of the document and he  
21 doesn't know who got the document. I think this is  
22 pursuing --

23 MR. SINKIN: The questions were very much in  
24 the line of what individuals. He was not familiar with  
25 what individuals. This question is did he direct that

1 the quality assurance department be provided with a  
2 copy, whoever got it?

3 JUDGE BECHHOEFER: I think we'll overrule the  
4 objection.

5 A I think I was trying to explain, Mr. Sinkin,  
6 that I frankly didn't have any recollection because I  
7 don't recall any prescription as to either organizations  
8 or people, per se. I think it's fair to say that the  
9 general understanding was that copies have to be  
10 available for those persons who have need to use that  
11 document for the pursuit of their work.

12 Q (By Mr. Sinkin) On page, transcript -- I'm  
13 sorry, your testimony, page 52, line 13 -- starting at  
14 line 11 you state there was no regulatory requirement  
15 that Quadrex be submitted to the NRC.

16 Have you ever sent reports to the NRC when  
17 there was no regulatory requirement to do so?

18 MR. AXELRAD: That's a very broad question,  
19 Mr. Chairman. I think Mr. Sinkin should make that  
20 question more specific and relate it in some fashion to  
21 the subject matter of this proceeding.

22 MR. SINKIN: Well, it's already related by the  
23 witness' testimony that one of the reasons the Quadrex  
24 report was not sent to the NRC was there was no  
25 regulatory requirement to do so. My question goes to

1 whether he sent reports to the NRC when there was no  
2 regulatory requirement to do so.

3 MR. AXELRAD: And I'm not sure what the  
4 relevance to the proceeding would be if there were any  
5 number of reports that have been submitted to the NRC  
6 without regulatory requirement. There has to be some  
7 showing of relevance of the question to the subject  
8 matter of this proceeding.

9 JUDGE BECHHOEFER: We'll overrule the  
10 objection. It's marginal, but we'll see where we go.

11 A Well, I'd like to put things in a frame of  
12 reference. We have this magic date of, say, May the  
13 7th, 1981. Prior to coming to Houston Lighting & Power  
14 Company in various technical capacities with Stone &  
15 Webster Engineering Corporation, I have had occasion  
16 from time to time to submit various types of generic  
17 technical documents to the Nuclear Regulatory Commission  
18 as it might serve to support subsequent technical  
19 submittals on behalf of a particular licensee.

20 For example, the treatment of asymmetric  
21 pressure loadings between a reactor vessel and a shield  
22 wall. If my memory serves me right, we supplied a lot  
23 of technical data to the Nuclear Regulatory Commission  
24 of a generic nature and then in subsequent transmittals  
25 on behalf of certain licensees, the common information

1 was called to the NRC's attention from that document.

2 Now, prior to --

3 Q (By Mr. Sinkin) Mr. Goldberg, I think I can  
4 shorten this substantially.

5 A I'd like to answer the question, if I might.

6 JUDGE BECHHOEFER: Let him finish. Broad  
7 question, broad answer.

8 MR. SINKIN: I was going to tighten up the  
9 question to shorten it.

10 A I don't want it tightened. I like it just the  
11 way it is, Mr. Sinkin.

12 Now, prior to May the 7th or 8th and at the  
13 point in time that I joined HL&P, which was around  
14 October twentieth, 1989, I can't recall HL&P submitting  
15 any gratuitous reports to the Nuclear Regulatory  
16 Commission. It's possible it happened, but I can't  
17 recall. It certainly wasn't any matter that I would  
18 have had a personal involvement or would have  
19 undoubtedly remembered.

20 Now, after Quadrex and in the course of what  
21 started to develop, once we had made the change of  
22 contractor, and I think the only reason for that context  
23 was that we started to develop a lot of new programs,  
24 programs that we felt were very innovative, programs  
25 that were designed to provide us with some very in-depth

1 substantial knowledge of the performance of our  
2 contractors and of a caliber that seemed to address the  
3 type of initiative suggested by Chairman Paledino of the  
4 Nuclear Regulatory Commission that licensees need to do  
5 more to assure themselves that the work associated with  
6 their programs or their projects is being carried out in  
7 a quality manner. And at HL&P we introduced the  
8 engineering assurance program, which I believe we have  
9 submitted a number of documents to acquaint the Board  
10 with.

11 And the life blood of this program is a very  
12 in-depth review by the licensee using supplemental  
13 services of an outside engineering firm to review the  
14 substance of, in this case, Bechtel's engineering to  
15 make sure that in those provocative complex nuclear  
16 areas, that Bechtel is on track with what is  
17 appropriate. And we have supplied details of that  
18 program to the Nuclear Regulatory Commission, as well as  
19 providing them copies of the reports that this program  
20 has generated.

21 And that's one example of some reports that we  
22 have provided to the NRC where regulations, per se, do  
23 not require. But we're helping, we believe, to pioneer  
24 what we believe will be a very useful practice in the  
25 industry to have more substantive type reviews conducted

1 by licensees of a caliber that will give not only the  
2 licensee confidence of the adequacy of the work, but the  
3 NRC as well.

4 We also, as I recall, sometime in maybe it was  
5 1982, possibly '83, we supplied to the Nuclear  
6 Regulatory Commission, Region 4, a report dealing with  
7 the installation of the nuclear steam supply system on  
8 the Unit 1. There had been some questions raised by  
9 Bechtel. These had been evaluated by Bechtel and  
10 determined to be technically acceptable. But the  
11 existence of the questions we felt were of interest to  
12 the Nuclear Regulatory Commission because they related  
13 to work performed by a contractor who has performed work  
14 at another nuclear station. And we felt that while we  
15 had no specific problem of concern on South Texas, this  
16 did not preclude the possibility of a concern  
17 elsewhere. And we supplied that report with the belief  
18 that it might be of some value to the NRC. Whether it  
19 proved to be or not, I frankly don't know, but we  
20 supplied that report.

21 I think it is the practice of our company to  
22 try to share with the NRC information that we think will  
23 be useful either to give them confidence of the adequacy  
24 of the work at South Texas or in our view might be  
25 useful as it might influence the health and well being

1 of the entire industry.

2 Q The report on the installation of the NSSS,  
3 had you found discrepancies in the way Brown & Root had  
4 installed the NSSS? Is that what you reported?

5 MR. AXELRAD: Mr. Chairman, at this time I  
6 would like to object. It appears that there was a broad  
7 question asked which we objected to which CCANP has not  
8 narrowed. The witness necessarily gave a broad answer.  
9 But if there's going to be any follow-up to any portion  
10 or the answer, I believe that it has to somehow tie to  
11 the particular subject matter of this proceeding.  
12 Otherwise, one marginal question will lead to a whole  
13 raft of additionally even less significant and relevant  
14 questions.

15 MR. SINKIN: I agree, Mr. Chairman. This  
16 particular deficiency was noted as the installation of  
17 the NSSS system and my question was going to go to  
18 whether that was potentially reportable in terms -- or  
19 why that was not potentially reportable but was sent  
20 anyway.

21 MR. AXELRAD: But that entire question is  
22 irrelevant. We are discussing in this proceeding the  
23 potential reportability of matters in the Quadrex report  
24 as of 1981 --

25 MR. SINKIN: And the current competence of

1 HL&P to make 50.55(e) reports.

2 JUDGE BECHHOEFER: I think we'll sustain that  
3 objection. It's a little remote.

4 Mr. Goldberg, while we're still on that one  
5 page 52, could you clarify one thing for me? When you  
6 used the words on line 12 regulatory requirement, are  
7 you referring only to regulations there or are you also  
8 encompassing reg guides or comparable documents which  
9 aren't officially regulations, but are -- such as the  
10 I&E guidance on reporting?

11 THE WITNESS: Mr. Chairman, to the best of my  
12 knowledge, both in terms of any regulatory influence,  
13 whether it be by regulation or guidance, as well as  
14 practice within the industry, I was not aware of any  
15 requirement that said to a licensee if you undertake to  
16 perform reviews of your project -- and we do these  
17 routinely in many different ways, through the use of  
18 consultants as the Quadrex review would suggest. We  
19 have audit type reviews conducted by quality assurance.  
20 We have all these reviews on file in our company, as do  
21 other licensees. We do not routinely share these  
22 reports in the form of submittal. They are shared by  
23 being in our file. They are available for review by the  
24 Nuclear Regulatory Commission as they may relate to  
25 matters of interest to the Nuclear Regulatory

1 Commission. We do not make it a practice to routinely  
2 send documents that prescribe reviews that we conduct.

3 The substance, however, of those documents as  
4 it might relate to matters that are required to be  
5 reported to the Nuclear Regulatory Commission then must  
6 be made available to the NRC. The substance of those  
7 matters has to be made available.

8 Q (By Mr. Sinkin) Let's go back to page 50 of  
9 your testimony for a moment, Mr. Goldberg. On page 50  
10 at line 24 or starting at line 22 you distinguish  
11 between deficiencies representing departures from  
12 regulatory requirements rather than the general  
13 deficiency of the design process.

14 Is it your view that Appendix B does not  
15 encompass a responsibility on the part of HL&P to ensure  
16 that Brown & Root's design and engineering of STNP is  
17 done in an efficient manner, that Appendix B does not  
18 apply to deficiency?

19 MR. AXELRAD: Are those two separate  
20 questions, Mr. Sinkin or just one?

21 MR. SINKIN: No, one.

22 MR. AXELRAD: Could you just restate the  
23 question in one?

24 (No hiatus.)

25

1 Q (By Mr. Sinkin) Is it your view that Appendix  
2 B does not encompass whether the design and engineering  
3 process is being done efficiently?

4 A It's my understanding that Appendix B would  
5 bear on an orderly process but not necessarily an  
6 efficient process. As a matter of fact, I don't think  
7 Appendix B would care if the day after one received a  
8 construction permit, did you nothing.

9 Q That's up to you.

10 A But I don't believe that it was the intent of  
11 Appendix B to concern itself with the efficiency that a  
12 licensee went about the business of engineering the  
13 plant. I don't think there was a prescription that it  
14 must be done in so many years. Clearly, there are  
15 commercial pressures that dictate that that is an  
16 appropriate concern.

17 Q Is there in your view --

18 JUDGE BECHHOEFER: As well as your construction  
19 permit.

20 THE WITNESS: Well, certainly you have a  
21 limited construction permit. When it runs out, you may  
22 not be able to build it after that.

23 Q (By Mr. Sinkin) Is it your view that there is  
24 no relationship between how efficiently the design and  
25 engineering process is conducted and the potential for

1 deficiencies in the work produced?

2 A I gave an extreme case example, I believe, the  
3 other day, where design activity wasn't carried out at  
4 all, that the question of the timeliness isn't without  
5 limit, that if you foreclose the opportunity to perform  
6 the design activity, that that would be a concern.

7 And there are many illustrations of that. If  
8 you fail to complete an analysis that requires that you  
9 have a certain amount of reinforcing steel in your  
10 structure and you then pour your concrete and then you go  
11 about the business of finding out that you need some for  
12 reinforcing steel, do you not have an orderly design  
13 process. And I think that's what Appendix B is  
14 addressing; and clearly the timeliness of your action is  
15 inappropriate and I think that you then have a totally  
16 different animal than just not having started something  
17 that the design process has not foreclosed your ability  
18 to complete in a reasonably orderly manner.

19 Q Page 53 of your testimony Mr. Goldberg, at  
20 answer 83, you discuss Mr. Oprea communications with  
21 Region 4 in August of 1981, if you could just familiarize  
22 yourself with that answer.

23 Q Did Mr. Oprea tell you that Region 4 had  
24 requested to be briefed on the Quadrex report?

25 A No. I believe the context was that HL&P

1 suggested to Region 4 that it might be useful that we  
2 provide a briefing of the Quadrex report for their  
3 opportunity to get at least a broad acquaintance with the  
4 document. We knew that Region 4 was in the process of  
5 getting acquainted with the document.

6 Q I'm sorry, you said was in the process of --

7 A Of getting acquainted with the document. You  
8 know, we had made obviously an offer to NRR in months  
9 earlier and we were affording a similar suggestion really  
10 to Region 4.

11 Q At page 54 of your testimony, MR. Goldberg, in  
12 answer 85, you state that as of -- I assume the context  
13 of your answer is the May 1981 period. Is that correct?

14 A Yes, your talking about the answer to question  
15 85

16 Q -- was in the context of the May 1981 period.  
17 You have participated in numerous licensing  
18 hearings; is that correct, Mr. Goldberg?

19 A That's correct.

20 Q And you have prepared evidence for such  
21 hearings, is that correct?

22 A I have participated in that effort, yes.

23 Q In the course of any of these proceedings, did  
24 you ever have occasion to inform a licensing board of new  
25 information that could affect its decision regarding

1 matters under its review; in other words, I'm not talking  
2 about prefiled testimony, putting together exhibits that  
3 you know are going to be produced, but a proceeding is  
4 underway, get new information, you provide it to the  
5 licensing board?

6 A Only in the context of information that the  
7 licensing board identified it had an interest in wanting  
8 to hear.

9 Q So the times that you have produced new  
10 information were in response to an initiation from a  
11 licensing board?

12 A I believe that's correct.

13 Q Did you at any time discuss with the attorney  
14 who prepared you are prefiled Phase I testimony the  
15 existence of the Quadrex report prior to your testifying?

16 A This was testifying when and in what period?

17 Q Well, on the 1981 phase of Phase I.

18 A And your question again was --

19 Q Okay, let's start with the first question and  
20 maybe we'll simplify it.

21 Which attorney did you work with in preparing  
22 your prefiled testimony in Phase I that was delivered  
23 prior to the start of Phase I?

24 A I think I worked with Mr. Axelrad; Mr.  
25 Gutterman, I'm sure I had conversations with Mr. Newman

1 but I don't know that it was regarding the development of  
2 the testimony. I think it was principally Mr. Axelrad  
3 and Mr. Gutterman.

4 Q Was there any Baker & Botts attorney that you  
5 worked with in the preparation of your prefiled  
6 testimony?

7 A I don't recall Baker & Botts attorneys involved  
8 in the preparation of testimony. It may well have been  
9 that they were, but I don't recall them getting involved  
10 in any preparation of nuclear testimony. It isn't clear  
11 to me what the Baker & Botts attorneys were doing.

12 JUDGE BECHHOEFER: How about Mr. Hudson?

13 THE WITNESS: Mr. Hudson was one of those Baker  
14 & Botts gentlemen.

15 JUDGE BECHHOEFER: Do you have any  
16 recollection?

17 THE WITNESS: No, sir. It's a total mystery to  
18 me what the Baker & Botts attorneys were doing there.

19 The preparation, to the best of my knowledge,  
20 of the testimony for the hearings, the conduct of the  
21 hearings, themselves, was handled by the firm at that  
22 time which was known as Lowenstein, Newman, Reis &  
23 Axelrad. I, for the life of me, couldn't figure out what  
24 Baker & Botts was doing there.

25 MR. SINKIN: Did you have any other questions,

1 Mr. Chairman?

2 JUDGE BECHHOEFER: No.

3 Q (By Mr. Sinkin) Did you at any time, May, June,  
4 July, August of 1981, seek advice from anyone on whether  
5 you should turn the Quadrex report over to either the NRC  
6 staff or the Atomic Safety and Licensing Board?

7 A In the context of any discussions with any  
8 engineers or with attorneys or with whom?

9 Q Well, I used the term seek advice. Did you  
10 discuss with anyone whether you should turn over the  
11 document or not?

12 A If you're talking about did I discuss with  
13 anybody the possibility of filing the total report as a  
14 50.55(e), I may have discussed that possibly with either  
15 Dr. Sumpter or Mr. Robertson. I think Mr. Robertson  
16 potentially more than Dr. Sumpter. But only may have.  
17 And the only reason why I think that that's a possibility  
18 is because clearly, when I received the report, the  
19 report contained a lot of information, contained a lot of  
20 what I characterized earlier as provocative language.

21 At first blush, the report is the kind of a  
22 document that does tend to cause you to pay a lot of  
23 attention to an awful lot of information. And there was  
24 a distinct possibility that that report may have  
25 represented a concern as to the general character of the

1 engineering on the South Texas Project and it remained to  
2 be seen whether or not that was going to be put in any  
3 different perspective in the subsequent review.

4 So in my mind, I knew there was the chance that  
5 that document might be reportable. And I might have  
6 discussed that with others.

7 Q During the time between the receipt of the  
8 Quadrex report on May 7 and the beginning of the Phase I  
9 hearings on May 12th, did you meet with Mr. Newman or Mr.  
10 Axelrad or Mr. Gutterman?

11 MR. AXELRAD: Mr. Chairman, I believe that  
12 question was asked and answered Friday or Saturday or  
13 Monday. And my recollection is that the witness said he  
14 didn't have any specific recollection but that since this  
15 was a couple of days before the hearing, that it was  
16 likely they did meet with and see one or more of the  
17 lawyers who were going to be handling the hearing.

18 MR. SINKIN: I had remembered that, Mr.  
19 Chairman, as a dialogue I had with Mr. Jordan, not as a  
20 dialogue I had already had with Mr. Goldberg.

21 But if indeed that's the case, we won't go  
22 browsing the transcript for it. I'll just withdraw the  
23 question.

24 Q (By Mr. Sinkin) Mr. Goldberg, I'm going to  
25 hand you a document which I ask be marked for

1 identification as CCANP 90.

2 It's Xeroxed back and front, while the original  
3 was original two pages.

4 You don't have an 89?

5 JUDGE BECHHOEFER: Off the record.

6 (Discussion off the record.)

7 MR. SINKIN: Thinks 89 that you're looking at.

8 (CCANP Exhibit 89 marked  
9 for identification.)

10 Q Mr. Goldberg, are these notes that you wrote?

11 A It appears to be my writing, yes.

12 Q Do you remember when you wrote these notes?

13 A These look like an -- well, this looks like an  
14 outline of the material I probably used to brief Region 4  
15 on September -- excuse me, not September. Let me get my  
16 bearings of when that briefing was.

17 Q Would that be the September 8th briefing --

18 A The September 8th, right. This looks like the  
19 notes of that review.

20 Q Were these notes you took during the review or  
21 you prepared before the review?

22 A I think I prepared these to help me with the  
23 presentation I made to them. It was a stand-up  
24 presentation; didn't use any visual aids, and I'm pretty  
25 sure these were my notes to myself. Up to the bottom of

1 the second -- the back half of the -- up to the back half  
2 of the sheet here, at the very bottom of that, there's  
3 some information that was added while I was there.

4 Q The information that was added would be the  
5 words "document each finding as substantive, consider  
6 broad report, 50.55(e)"?

7 A That's correct. Those notes I jotted down  
8 apparently while I was at Region 4.

9 MR. SINKIN: Mr. Chairman, I would move CCANP  
10 89 into evidence.

11 MR. AXELRAD: No objection.

12 MR. PIRFO: No objection.

13 JUDGE BECHHOEFER: CCANP 89 will be admitted.  
14 (CCANP Exhibit 89 was admitted  
15 into evidence.)

16 Q (By Mr. Sinkin) On page 55, Mr. Goldberg  
17 starting page 54, you made some grammatical changes to  
18 the sentence by putting a period at line 26, by putting a  
19 period after "licensing board" and beginning with a  
20 capital U, "until September."

21 Do you have those reflected in the copy you're  
22 looking at?

23 A Right.

24 Q Okay. Turning to page 55, you use the phrase  
25 "at that time." You're referring to September 1981?

1 A That is correct.

2 Q Can you specify the date in September of 1981  
3 when licensing counsel advised you that the NRC staff had  
4 taken the position that the licensing board should be  
5 given the report?

6 A I don't remember the exact date. It would  
7 clearly have to have coincided either the same day or  
8 within a day after there was a conversation, apparently,  
9 between the NRC counsel and our counsel.

10 Q But you don't know what that day is.

11 A I don't think I got -- I know I don't have that  
12 dates in my memory bank and I don't know whether it's  
13 written down someplace.

14 Q And who specifically informed you of that  
15 position of the NRC staff?

16 A I believe Mr. Newman informed me of that. I  
17 think he informed me that by phone, as I recall.

18 Q Was the date for the announcement of Brown &  
19 Root's removal as architect engineer moved up so the  
20 announcement would be made before the Quadrex report was  
21 released to the Board?

22 A The two are unrelated. The announcement on  
23 Brown & Root was at the earliest possible time which had  
24 to coincide with reaching a decision on which contractor  
25 we felt we were going to do business with; we had to

1 receive the approval of the management committee, the  
2 chief executive officers, and our board of directors.  
3 And there were a host of reviews and approvals that had  
4 to take place. And as soon as that was finished, they  
5 were going to go about the business of making the change.

6 Q There was no -- are you sure to get the word  
7 out at the very end?

8 MR. AXELRAD: I think that question has been  
9 asked and answered, Mr. Chairman.

10 MR. SINKIN: All right. That's fine.

11 Q (By Mr. Sinkin) We have talked previously  
12 about the difference between capital QA, quality  
13 assurance, as in the Department of Quality Assurance and  
14 small QA, quality assurance, as the generalized mandate  
15 of quality assurance.

16 Could you please describe the function of the  
17 Quality Assurance Department as administered through the  
18 Quality Assurance Department and distinguish that from  
19 the function of quality assurance as administered small  
20 QA, through the Engineering Department, the Design and  
21 Engineering Department.

22 A Well, I think if we're going to get into a  
23 discussion of what do we mean when we talk about quality  
24 assurance other than an organization, but as an activity.

25 Q Is that --

1           A     It might be useful to start with the activity  
2 first and then we can talk about the --

3           MR. PIRFO: Mr. Chairman -- excuse me, Mr.  
4 Goldberg.

5           JUDGE BECHHOEFER: There was commenting by the  
6 Board's members. I've heard this --

7           MR. PIRFO: I was going to say I heard this  
8 question before, I don't know if it was directed to Mr.  
9 Jordan or Mr. Goldberg, but it sounds cumulative to me to  
10 the extent Mr. Goldberg has -- to the extent Mr. Jordan  
11 testified to it, it would be cumulative because I'm not  
12 sure that is the distinction between Mr. Goldberg's  
13 interpretation and Mr. Jordan's interpretation is of any  
14 difference; since the CEO has already testified as to  
15 what the functions are, I can't understand why Mr.  
16 Goldberg's opinion would be, if it differs from Mr.  
17 Jordan's, would be of any moment.

18           I think my recollection was the same as the  
19 Board's, we've heard this before.

20           MR. AXELRAD: That is my recollection, also,  
21 that it came up in the first day and it would have been  
22 much more likely that it came up in more -- likely to  
23 come up in Goldberg than Jordan. But I can't point to a  
24 specific portion of the transcript where that took place.

25           MR. PIRFO: That's a problem I have.

1 JUDGE BECHHOEFER: What are you leading toward?

2 MR. SINKIN: I'll go to the next question; I  
3 think we can do that.

4 Q (By Mr. Sinkin) First as a foundation, Mr.  
5 Goldberg, can we -- it would be correct to say that the  
6 quality assurance program is not just a program that  
7 governs activity of the quality assurance capital QA  
8 Department; is that correct?

9 A That is correct.

10 Q The design control activities on the project,  
11 they are the province of the engineering personnel who  
12 are the ones that develop the procedures and control  
13 their activities and they achieve the objectives of  
14 design control as identified in Criterion 3 of Appendix  
15 B; is that correct?

16 A Mr. Sinkin, your question is rather bizzare.  
17 You've lost me.

18 Q Okay. I'll try again. Criterion 3, of  
19 Appendix B requires as part of a quality assurance  
20 program that there be design control. If you would like  
21 to take a moment to review that criterion, that's fine.

22 A Okay.

23 Q Okay. Is it the engineering personnel as  
24 opposed to the Quality Assurance Department personnel who  
25 are the ones that develop the procedures for controlling

1 the design activities and thereby achieving the  
2 objectives of Criterion 3?

3 A It is the responsibility of the performing  
4 organization to prepare the necessary tools to carry out  
5 their obligations under Criterion 3.

6 Q And in your view, when 50.55(e) speaks of a  
7 breakdown in quality assurance, the quality assurance  
8 referred to is this broader concept of quality assurance,  
9 that is broader than just the activities of the capital  
10 QA Department.

11 A That is correct.

12 Q Are the safety margins present in a design a  
13 quality assurance concern?

14 MR. AXELRAD: I'm not sure I understand that  
15 question, Mr. Chairman.

16 MR. SINKIN: Well, Mr. Goldberg understands  
17 this question. Let's --

18 MR. AXELRAD: The problem is that the record  
19 has to contain questions and answers that are meaningful  
20 for purposes of future review by others.

21 Q (By Mr. Sinkin) Mr. Goldberg what does the  
22 term "safety margins" in design refer to?

23 A Well, it can relate to any number of things.  
24 Clearly, in the area of civil engineering area, there are  
25 different kinds of margins. We use factors of safety for

1 establishing a margin to deal with the possibility that  
2 the things just don't come out exactly the way the  
3 calculations says they're going to.

4           There's one form of a safety margin. The  
5 regulatory process, itself, may prescribe safety margins.  
6 They may suggest, for example, that you will design for a  
7 certain pressure, irrespective of whether the  
8 calculations tell you that that's really the pressure you  
9 have.

10           The difference between what you calculate and  
11 what's been prescribed by regulation could be also  
12 defined as a safety margin.

13           Generally, in the broad context, safety margin  
14 connotes the difference between what you really think  
15 is going to have and what you've allowed for in terms of  
16 strength or capacity or some other capability of your  
17 design.

18           Q     And is it common to look at safety margins from  
19 the perspective of whether they are conservative or  
20 unconservative?

21           MR. AXELRAD: Mr. Chairman, common for what  
22 purpose. Are we talking about regulatory purposes,  
23 design purposes; commercial purposes?

24           Q     (By Mr. Sinkin) Within the context of quality  
25 assurance, Mr. Goldberg, is it a concern whether safety

1 margins are conservative or unconservative?

2 MR. AXELRAD: Are we talking about safety  
3 margins which are required by the regulatory system or  
4 the other safety margins that Mr. Goldberg has referred  
5 to? He's identified a variety of safety margins and a  
6 variety of meanings for that term.

7 JUDGE BECHHOEFER: I think you'll have to  
8 sharpen this up a little bit so that --

9 Q (By Mr. Sinkin) Let me ask you this, Mr.  
10 Goldberg. The Quadrex Corporation was looking at safety  
11 margins in the design of the Brown & Root program, the  
12 Brown & Root design engineering program. Is that  
13 correct?

14 A I believe the Quadrex did identify at least in  
15 the structural area, some commentary regarding safety  
16 margins.

17 Q Were the safety margins that Quadrex was  
18 looking at of concern in the quality assurance,  
19 potentially of concern in the quality assurance area?

20 MR. AXELRAD: Are we talking about those safety  
21 margins that Mr. Goldberg referred to in his previous  
22 answer or are we talking about safety margins generally.

23 MR. SINKIN: I said the safety margins looked  
24 at by Quadrex, which are the previous question and  
25 answer.

1 MR. AXELRAD: But the previous question and  
2 answer only identified one instance in which safety  
3 margins were looked at.

4 Q (By Mr. Sinkin) You mentioned structural as  
5 one area.

6 A That is right.

7 Q Do you remember any other areas?

8 A That's the one that seems to have stood out, as  
9 I recollect. I think Quadrex made a number of  
10 observations. I think one observation they made was that  
11 this was the most conservative structural design I think  
12 they had ever seen. I think their feeling was it was  
13 dramatic over designed. And I think they went on to say  
14 that they weren't sure whether or not the -- that every  
15 designer was conversant with exactly how much margin they  
16 were working with.

17 Some question on whether or not the bookkeeping  
18 of the safety margin was adequate. I seem to recall some  
19 dialogue along those lines.

20 Q Moving to a different subject, Mr. Goldberg.  
21 Would the presence or absence of adequately experienced  
22 nuclear engineers, in your mind, be a matter of concern  
23 in the quality assurance context?

24 A Clearly if one attempted to conduct a design  
25 using unqualified people, and the product was

1 unacceptable from a standpoint of satisfying the  
2 commitments prescribed for that design, that would not be  
3 acceptable.

4 If on the other hand, the connotation was that  
5 an organization had a limited number of persons who were  
6 capable of carrying out that design and in turn, to deal  
7 with the particular need, they went out and hired  
8 competent outsiders to do the work for them, that that  
9 could be an acceptable alternative.

10 It may not be as desirable from a standpoint of  
11 the commercial implication; it may end up costing you  
12 more money to design a plant with that kind of a  
13 situation; but there's no reason why the results could  
14 not be equally acceptable as opposed to doing it in-house  
15 with your own group of qualified persons.

16 Q Did HL&P ever have occasion when they preceived  
17 Brown & Root as unable to perform a particular design  
18 activity and HL&P went out and hired somebody else to do  
19 it as opposed to the Brown & Root subcontracting of t?

20 MR. AXELRAD: Mr. Chairman, what time frame are  
21 we talking about?

22 MR. SINKIN: In the time frame, let's say,  
23 April, May, 1981 or before, from your knowledge of that  
24 project.

25 MR. AXELRAD: Mr. Chairman, does that question

1 relate to any specific or generic finding in this  
2 proceeding? I think if so, the questioner should relate  
3 it to that particular finding. We're not discussing the  
4 general scope of Brown & Root engineering activities at  
5 that time, nor how HL&P handled any engineering matters  
6 that might have come up, other than those which are  
7 brought into this proceeding by the findings under issue  
8 in this proceeding under the Quadrex report.

9 MR. SINKIN: Mr. Chairman, as Mr. Goldberg  
10 correctly recognized, when I began this line of  
11 questioning, we're talking about quality assurance. And  
12 we're talking about how the Quadrex findings might or  
13 might not relate to a quality assurance problem.

14 I am taking the generalized conditions as I  
15 perceive them and we'll see if it's supported, what we do  
16 with the findings. I'm presenting them to Mr. Goldberg  
17 and asking him if he sees a quality assurance problem in  
18 those conditions. We're already successfully dealt with  
19 at least one and a partial success on another. I think  
20 we can continue with Mr. Goldberg understanding what  
21 we're doing.

22 JUDGE BECHHOEFER: Does the staff have a view  
23 on this one?

24 MR. REIS: Yes, the staff thinks this is beyond  
25 the scope of the issues delineated by the Board.

1 MR. SINKIN: Mr. Chairman, it's very clear that  
2 one of the issues in this proceeding is whether the  
3 Quadrex report should have been viewed as a quality  
4 assurance report or not. We are establishing in the  
5 generalized should-the-whole-report-have-been-turned-  
6 over area, whether the quality -- whether the Quadrex  
7 report should have been perceived as a quality assurance  
8 document.

9 MR. SINKIN: And that is dependent upon the  
10 findings of the Quadrex report, which are in issue in  
11 this proceeding, and Mr. Sinkin can properly examine with  
12 respect to the findings in the Quadrex report.

13 MR. SINKIN: Absolutely not. The contention as  
14 written says should more of the findings or the entire  
15 report, or the entire report, have been turned over to  
16 the NRC. The question on whether the entire report  
17 should have been turned over to the NRC is not limited to  
18 the question of whether the particular findings  
19 identified in the order should have been turned over to  
20 the NRC.

21 MR. AXELRAD: Whatever the matters of that  
22 argument by Mr. Sinkin, they're still dependent upon the  
23 contents of the Quadrex report and not what the  
24 relationship may have been between HL&P and Brown & Root  
25 with respect to quality assurance or any other subject.

1           The question is: How should the matters  
2 contained in the Quadrex report be reported or should  
3 have they been reported to the NRC, not what the other  
4 dealings were between HL&P and Brown & Root.

5           MR. REIS: Mr. Chairman, in your May order, 6th  
6 prehearing conference order, the issues were further  
7 limited. It was plainly indicated that the way to test  
8 that was in relation to the particular named findings,  
9 whether they be the engineering findings or the most  
10 serious discipline findings.

11           And this proceeding was limited to that. And  
12 it's true, it's a matter that may be tested but only with  
13 those -- with what was pointed out there.

14           Previously, Mr. Sinkin, in discovery and not  
15 only in discovery but in answer to inquiries from the  
16 Board, was given an opportunity to set out which findings  
17 he wanted to litigate. As a result of those -- of what  
18 went on there after, after the Board gave Mr. Sinkin the  
19 attempt, it issued its 6th prehearing conference order  
20 which specified the basis upon which we would test those  
21 very matters. And those were the generic findings and  
22 the most serious discipline findings. And I don't think  
23 we can go beyond that.

24           MR. SINKIN: Mr. Chairman, I find that argument  
25 to be outrageous. If the question is whether the Quadrex

1 report should have been turned over to the NRC staff, any  
2 perception that Mr. Goldberg gained from that report that  
3 was quality assurance related would influence the  
4 decision over whether to provide that to the Nuclear  
5 Regulatory Commission.

6 I am testing certain things which he has  
7 already testified the Quadrex report showed him about the  
8 overall operation of Brown & Root. Under the theory  
9 presented by the Applicants and the staff, we could not  
10 look at the overall operation of Brown & Root and come to  
11 some conclusion as to whether the report should have been  
12 turned over. I think that's nonsense.

13 MR. AXELRAD: Mr. Chairman, if we had the  
14 specific question read back --

15 JUDGE BECHHOEFER: I was going to suggest --

16 MR. AXELRAD: A number of have arguments have  
17 been made by Mr. Sinkin which I think have no  
18 relationship to the particular question that we objected  
19 to.

20 MR. SINKIN: If you're going to read back, you  
21 need to have the question and answer before it read back  
22 and then the following question; that's the context.

23 JUDGE BECHHOEFER: That's okay. Why don't we  
24 do that.

25 (The last-above questions and answer were

1 read back by the reporter.)

2 MR. AXELRAD: That was exactly the point, Mr.  
3 Chairman, I did not object to the first question and its  
4 answer because I thought that were Mr. Sinkin was heading  
5 as he was trying to raise a question with respect to  
6 whether or not having design work done by adequately  
7 trained nuclear engineers was a quality concern; and I  
8 thought it was conceivable that he was going to then try  
9 to link that question and and that answer to one or more  
10 of the specific findings in issue in this proceeding, and  
11 try to show that somehow those findings resulted in the  
12 use of inadequately trained or qualified nuclear  
13 engineers.

14 But then to go on to the completely unrelated  
15 question of whether HL&P ever had occasion to go out and  
16 hire others for some purpose that has nothing to do with  
17 this specific finding.

18 MR. SINKIN: Mr. Chairman, I think there will  
19 be more than one occasion in this proceeding where my  
20 line of questioning does not go precisely where Mr.  
21 Axelrad is expecting it to go. I trust that would be the  
22 case.

23 At the same time, if you listen to the  
24 relationship of the first question to the second  
25 question, particularly the answer to the first question

1 was, we're talking about whether they have adequately  
2 experienced nuclear engineers in place.

3 Mr. Goldberg's answer is that is not a problem  
4 if, not a quality assurance, maybe a monetary problem, if  
5 they go out and they hire outsiders to do their work for  
6 them.

7 I'm moving to a variation of that theme. What  
8 if HL&P goes out to hire the outsider because they don't  
9 have confidence Brown & Root can perform that design? Do  
10 we then have a quality assurance concern? It's simply --  
11 it flows right from that first question.

12 JUDGE BECHHOEFER: We will sustain that  
13 objection. I don't think it does flow in the context of  
14 the issues which we are examining.

15 Q (By Mr. Sinkin) Mr. Goldberg, was there a  
16 pattern where of Brown & Root engineers and engineering  
17 managers being unable to solve technical problems?

18 A Well, I think in the context of problems  
19 unsolved, those are the problems that people remember.  
20 You know, the management of a large activity such as the  
21 engineering of a nuclear power plant is one where you  
22 always focus your attention on the areas of difficulty.  
23 There were selected areas where Brown & Root was  
24 struggling to complete the engineering activities. Any  
25 number of these did stand out and it identified a fact

1 that I think we made earlier, that there were limited  
2 number of seasoned resources.

3 So therefore, the ability to get through the  
4 problem areas was taking longer than would have been the  
5 case had there been more qualified persons available.

6 A I think it's just an outfall of the fact that  
7 there were just a limited number of really sharp people  
8 who could deal with these rather special problems.

9 Q Did Brown & Root ever satisfactorily complete  
10 the design of cable trays before they left the project?

11 MR. AXELRAD: Mr. Chairman, are we talking  
12 about one cable tray or a hundred cable trays; all the  
13 cable trays needed for the project?

14 MR. SINKIN: Mr. Goldberg, let me ask a  
15 foundation question that might help.

16 Q (By Mr. Sinkin) You spoke about problem areas  
17 where Brown & Root was struggling. Was the design of  
18 cable trays an area where Brown & Root was struggling?

19 A Well, there is a broad area of design  
20 activities associated with cable trays. You have  
21 basically first the identification of cable tray routing.  
22 You have the development of a design of cable tray  
23 support; you have the development of the welding  
24 requirements for the attachment of the supports to the  
25 cable trays. Was there any particular area of that

1 design, for example, that you had in mind?

2 (No Hiatus.)

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1           Q     Was there any particular area of that design  
2 where you found Brown & Root to be struggling?

3           A     Well, when I came on the project they were --  
4 they had the problem of the welding of the supports to  
5 the cable trays behind them. I believe that that was  
6 also wrapped up in part to some of the snow cause  
7 findings. The routing of the cable trays, while it may  
8 not have been complete, I wasn't aware of any generic  
9 problem that they were having with routing, per se.

10                     There was one problem that surfaced while I  
11 was on the project that represented a problem dealing  
12 with the fact that the cable tray support system was  
13 identified as a guideline document which was provided to  
14 construction and there were instructions to the effect  
15 that construction had to comply with the guideline  
16 document. Should construction choose to depart, that  
17 they had a responsibility to sketch the departure, and  
18 this was only permitted in areas where they may  
19 encounter some local interference, and they were  
20 required to supply that information back to design for  
21 confirmation on whether or not that departure was  
22 acceptable.

23                     Apparently there were a large number of these  
24 departures that had stacked up and had not been getting  
25 reviewed by Brown & Root in a timely manner. And, as a

1 result, it was found that some number of the supports  
2 that were actually installed in the field were not  
3 acceptable and they certainly were not consistent with  
4 the design requirements.

5 Q In that --

6 MR. AXELRAD: I was going to ask, Mr.  
7 Chairman, the witness has been on for three hours except  
8 for the recess that was taken before. I would suggest  
9 that at an appropriate time we break for lunch.

10 MR. SINKIN: I'm very close to a breaking  
11 point, Mr. Chairman.

12 JUDGE BECHHOEFER: Okay.

13 Q (By Mr. Sinkin) The way you described that  
14 process of the cable trays encountering difficulties,  
15 did you say that construction would do a drawing and  
16 send it to engineering for approval?

17 A They would do a sketch.

18 Q And those sketches were piling up and not  
19 being reviewed?

20 A That's correct.

21 Q Was construction proceeding with the  
22 installation anyway?

23 A That is correct.

24 Q Even though those drawings had not been  
25 reviewed?

1 A That's correct.

2 Q And the root --

3 A As I recall, that matter was a matter of  
4 reportability that was made to the Nuclear Regulatory  
5 Commission.

6 Q And the root cause of why Brown & Root was not  
7 reviewing those sketches and getting them resolved and  
8 construction was going forward, what is the root cause  
9 of that in your view?

10 A That particular problem Brown & Root failed to  
11 carry out their responsibilities called for by their own  
12 procedure that stated that there would be timely  
13 engineering review of any departures reported from  
14 construction. And they were not carrying out a timely  
15 review and that matter was a reported matter.

16 Q Did the failure to carry out a timely review  
17 trace back, I'm trying to get to the root of that, trace  
18 back to the same lack of inadequate number of  
19 experienced personnel?

20 A There could be a connection. Then again, it  
21 could be just a matter of someone losing sight of a  
22 requirement that they had in one of their procedures.

23 You know, it is possible with a completely  
24 well-staffed organization of experienced people, every  
25 now and then you overlook something. It may be

1 systematic, in which case it's reviewed and it  
 2 represents a significant breakdown in quality and had it  
 3 gone uncorrected would have posed a threat to the public  
 4 interest, that those are matters that could well be  
 5 reportable, even though you have a perfectly large  
 6 technically competent organization. So, it's hard to  
 7 know for sure just what the connection was in this  
 8 particular case.

9 Q Was Brown & Root ever able to resolve  
 10 satisfactorily the problems that you're aware of  
 11 affecting the isolation valve cubicle structural design?

12 MR. AXELRAD: Mr. Chairman, we appear to be  
 13 going on to a different subject at this point. I think  
 14 it would be --

15 MR. SINKIN: Fine, if you would prefer the  
 16 lunch break.

17 JUDGE BECHHOEPER: Is this a good time for you  
 18 or --

19 MR. SINKIN: It's the same subject but a  
 20 different example. But that's fine --

21 JUDGE BECHHOEPER: Are you relatively close to  
 22 the end of the entire subject or not?

23 MR. SINKIN: I had this example and one  
 24 other. That was all I had.

25 MR. AXELRAD: I think we would prefer to

1 discuss any examples after lunch rather than at this  
2 time, Mr. Chairman.

3 MR. SINKIN: That's fine.

4 JUDGE BECHHOEFER: Okay.

5 MR. SINKIN: What time are we coming back?

6 JUDGE BECHHOEFER: 1:15, I think.

7 (Luncheon recess.)

8 JUDGE BECHHOEFER: Back on the record.

9 Q (By Mr. Sinkin) Mr. Goldberg, prior to the  
10 lunch break we were in the general context of quality  
11 assurance and the more specific question of Brown & Root  
12 Engineers engineering managers being unable to solve  
13 technical problems and whether you had seen any evidence  
14 of that. I have a couple more examples of specific  
15 problems that I wanted to address with you.

16 Are you aware of a problem in the isolation  
17 valve cubicle structural design that was discovered by  
18 HL&P at the project? And we will define the time frame  
19 after you tell me whether you're aware of the problem.

20 A I think we've already had some testimony  
21 regarding that.

22 Q Were you aware of that problem at the time of  
23 the Quadrex study?

24 A I'm not absolutely sure. I was certainly  
25 aware of the fact that the construction on that

1 particular -- or the construction activities on that  
2 particular structure had come to a halt. There was no  
3 activity and the word was that Brown & Root was still  
4 developing the reinforcing concept needed to take the  
5 loads associated with the pipe break for both the main  
6 steam and feedwater lines. And my own personal  
7 experience in this area is that that is a very complex  
8 problem and it becomes a very complex structure.

9 Q Was the cause of the isolation valve cubicle  
10 problem Brown & Root's failure to adequately understand  
11 and consider regulatory requirements?

12 A I don't think I recall my understanding along  
13 those lines.

14 Q Was the root cause of the problem Brown &  
15 Root's inexperience?

16 A I believe that Brown & Root's difficulty with  
17 the design of that structure is perhaps comparable to  
18 the difficulty that other architect engineers  
19 encountered when they undertook to design that structure  
20 on their particular plants. It does represent a very  
21 complex structure. The penetrations are large. The  
22 forces that have to be handled in the wall, both in  
23 terms of force as well as the torsion, is quite severe.  
24 And I'd say in terms of structural design, it's perhaps  
25 one of the more difficult structures that needs to be

1 designed in a nuclear power plant.

2 Q Given the level of Brown & Root's total  
3 resources available to the project, would it have been  
4 harder for Brown & Root than most other AE's to address  
5 this complex problem?

6 A I think without some outside help it probably  
7 would have been. I believe that the project was heading  
8 for a need to bring in some additional consultants to  
9 assist Brown & Root in that area.

10 Q Are you aware of a problem on verifying the  
11 integrity of misfabricated anchor bolts?

12 A I'm aware of a rather extensive problem  
13 regarding a mix-up of certain anchor bolt materials.

14 Q And as a result of that mix-up, was there a  
15 need to go back and verify the integrity of the bolts  
16 that were in place?

17 A As part of the total investigative program,  
18 there was a feature where we had to check by testing,  
19 hardness testing, a number of anchor bolts to determine  
20 which grade of steel the material, in fact, was.

21 Q Was Brown & Root ever able to actually verify,  
22 complete the process of verifying the integrity of the  
23 misfabricated anchor bolts?

24 A As I recall, Brown & Root thought they had  
25 completed that work. And I'm trying to recollect a time

1 frame.

2 Q Let me ask you this, it might be simpler. Did  
3 they ever do it to the satisfaction of the NRC?

4 A It's my understanding that subsequent to Brown  
5 & Root believing that they had completed the work, in  
6 fact, I think it was even sometime after we may have  
7 replaced Brown & Root, the question resurfaced through  
8 an inquiry by an NRC inspector.

9 Q When the question resurfaced, was the NRC  
10 satisfied with the previous verification program?

11 MR. AXELRAD: Mr. Chairman, I would like to  
12 object to this line of questioning. We've permitted  
13 this to continue for some while. There is yet to be any  
14 identification of any relationship of the particular  
15 example that Mr. Sinkin is seeking to examine, any  
16 relationship between that example and the matters of the  
17 specific findings of Quadrex that are in issue here.  
18 It's not even clear that these particular matters are  
19 engineering problems as opposed to field fabrication  
20 bolt problems. I don't see how this inquiry is at all  
21 relevant to the issues in this proceeding.

22 MR. SINKIN: Well, we can certainly clarify  
23 whether it's an engineering problem at all with a  
24 question to Mr. Goldberg and deal with that part of the  
25 objection.

1           As far as the other part of the objection,  
2 that's precisely the same objection that Mr. Axelrad  
3 raised in the earlier questions in this series. The  
4 objection was overruled. It was explained that this was  
5 a quality assurance inquiry and we were looking at a  
6 particular element of quality assurance, the Brown &  
7 Root engineers and engineering managers in the ability  
8 to solve technical problems, that I was going to examine  
9 three or four specific instances to test whether those  
10 were quality assurance problems or not and that's  
11 exactly what I've been doing in this whole inquiry.  
12 It's the same objection he made to the previous lines,  
13 previous questions in this series and it was overruled.

14           As far as whether it relates to design  
15 engineering, I'd be happy to ask Mr. Goldberg that  
16 question.

17           JUDGE BECHHOEFER: Why don't you do that  
18 first.

19           Q     (By Mr. Sinkin) Mr. Goldberg, was there a  
20 role that design and engineering had to play in the  
21 verification of the integrity of misfabricated anchor  
22 bolts?

23           A     Yes, there was.

24           Q     Brown & Root design and engineering?

25           A     Yes. And it may well be that they had some

1 help from consultants, I'm really not sure.

2 Q You stated that the --

3 MR. AXELRAD: Mr. Chairman, I thought my  
4 objection was still pending. There were two bases to  
5 the objection.

6 MR. SINKIN: Right. Okay.

7 JUDGE SHON: In the matter of the anchor  
8 bolts, where does it appear in the Quadrex report?

9 MR. SINKIN: What I am doing is  
10 establishing -- let me show you the whole line and how  
11 it relates because in my mind through the Applicants'  
12 testimony and their pleadings there has been raised a  
13 question of whether the Quadrex report should be  
14 considered a quality assurance document or not. Their  
15 position seems to be it is not.

16 This whole exploration has been first to lay  
17 into the record Mr. Goldberg's view of what quality  
18 assurance is. Then take some specific generalized  
19 observations that the Quadrex report did confirm or  
20 actually bring forth for the first time to HL&P and see  
21 if those more generalized observations of the Brown &  
22 Root design and engineering program are quality  
23 assurance related.

24 Then what I have done is take specific  
25 examples of that generalized observation and see if they

1 did, in fact, occur to reinforce that it had occurred  
2 over here, then Quadrex brought it in and said it is  
3 occurring, and that you put that together, they knew  
4 about things, Quadrex said yes, they're happening and  
5 you have a package of events that indicate whether it's  
6 a quality assurance document that should be transmitted  
7 to the NRC because it's systematic.

8 JUDGE BECHHOEFER: But does the area that you  
9 used your examples in at least have to be covered by the  
10 Quadrex report in some way?

11 MR. SINKIN: I don't --

12 JUDGE BECHHOEFER: I'm not talking about the  
13 findings designated for the moment.

14 MR. SINKIN: Right.

15 JUDGE BECHHOEFER: Doesn't it have to be there  
16 in some form?

17 MR. SINKIN: The question is should HL&P  
18 management in looking at this report have turned it over  
19 to the NRC. If they look at this report and this report  
20 gives to them a sense of quality assurance problems,  
21 widespread quality assurance problems, then they would  
22 turn it over. They may perceive from the report what  
23 the underlying problem is that Quadrex did not maybe  
24 even specifically address. In some cases Quadrex  
25 specifically addressed an underlying problem.

1           For example, I think Quadrex did address the  
2           inability of the Brown & Root design engineering program  
3           to solve particular engineering programs. Whether they  
4           did or not, they did address the problem of an  
5           inadequate level of skill and resources in the Brown &  
6           Root design and engineering program, a problem Mr.  
7           Goldberg was aware of to some extent at the time that  
8           Quadrex confirmed for him. And that in our position  
9           would represent a quality assurance concern that would  
10          lead you to turn over the report.

11           JUDGE SHON: And the only nexus between this  
12          particular problem and the Quadrex report is that you  
13          allege or you're trying to prove that the Quadrex report  
14          is a quality assurance document and this problem was a  
15          quality assurance problem, is that --

16           MR. SINKIN: Exactly. If the Quadrex report  
17          was indeed a quality assurance document, then all of  
18          their representations in their testimony to the contrary  
19          must be seen as a measure of their competence.

20           JUDGE BECHHOEFER: The Board will uphold this  
21          objection. We don't think that -- the relationship is  
22          just too tenuous, unless we can be shown that there is  
23          something in the Quadrex report dealing specifically  
24          with the anchor bolt problem.

25           I don't think that -- what makes a document,

1 even assuming for the moment that it were a quality  
2 assurance document, it would only be so because of  
3 what's in it. So, I think that there's no relationship  
4 to anything in the report.

5 But that's too tenuous, so the last objection  
6 we'll uphold.

7 MR. SINKIN: Mr. Chairman, I'm not going to  
8 argue the ruling, but I don't want my silence to  
9 indicate that I agree with the fact that the document is  
10 only a quality assurance document based on what's in it  
11 as opposed to what what's in it reveals about a more  
12 broad issue. But we can debate that in the findings.

13 Q (By Mr. Sinkin) Mr. Goldberg, during the  
14 reporting of the Quadrex findings to you, I think we  
15 discussed when we were reviewing Mr. Stanley's notes the  
16 idea of friction between HL&P and Brown & Root, that  
17 that kind of friction did exist. I think he even talked  
18 about bad words being used by Brown & Root managers and  
19 things like that. Do you remember that?

20 MR. PIRFO: Excuse me. Are we talking about  
21 the May 7th meeting?

22 MR. SINKIN: It came out in various meetings  
23 where Quadrex was reporting that there was a high level  
24 of friction between HL&P and Brown & Root personnel.

25 MR. AXELRAD: I don't recall any testimony

1 dealing with various meetings. There may have been  
2 something in relationship to one of the meetings  
3 perhaps.

4 Q (By Mr. Sinkin) Well, specifically the notes  
5 that Mr. Stanley took, the handwritten notes that he  
6 wrote himself prior to one of the meetings, the March  
7 18th meeting, do you remember those notes?

8 A I recall --

9 MR. PIRFO: I'll object. I'm not sure there  
10 is, for want of a better word, a legitimate question  
11 pending here. I mean I heard three. I'm not sure what  
12 the question is.

13 MR. SINKIN: The question is do you remember  
14 the notes so we can get a foundation in the record. If  
15 he doesn't remember the notes, we'll have to refresh his  
16 memory. That's all. Just so we can get started.

17 MR. PIRFO: Is that the question, Mr.  
18 Chairman.

19 MR. SINKIN: Does he remember the discussion  
20 about those notes about the friction between HL&P and  
21 Brown & Root. It's CCANP Exhibit 74, if the Applicants  
22 would like to show it to him.

23 A I believe I've already testified to that  
24 fact. I think you asked me a couple days ago if I was  
25 familiar with maybe a remark along those lines and I

1 said it could well have been made. I think there were  
2 from time to time problems with engineers interfacing  
3 with one another. I think we've already pretty much  
4 acknowledged there was some amount of that present.

5 Q (By Mr. Sinkin) What about disputes between  
6 Brown & Root engineers and Brown & Root quality  
7 assurance, were you aware of that kind of problem?

8 MR. AXELRAD: Mr. Chairman, I will object to  
9 the relevance of that question. How does that pertain  
10 to the particular issues in this proceeding?

11 MR. SINKIN: Mr. Chairman, I don't think the  
12 question's important enough to argue over at this  
13 point. I'll just move along.

14 Q (By Mr. Sinkin) After you came to the South  
15 Texas Nuclear Project, Mr. Goldberg, did you encourage  
16 or otherwise suggest to the HL&P management that an  
17 independent third-party review of the quality of Brown &  
18 Root's design process and outputs be conducted?

19 A No, I don't believe that that was the  
20 character of my suggestion. My suggestion to the  
21 management of The Light Company when I arrived was that  
22 there seemed to be a considerable amount of visibility  
23 as to the status of construction. Clearly the hearings  
24 had focused in on some particular problems in the  
25 quality of construction, the relationship of the

1 construction personnel to the quality control  
2 inspectors. It obviously had gained some national  
3 prominence through the show cause order that appeared in  
4 the Federal Register which I read about before I had  
5 ever accepted the position at HL&P. And everyone was  
6 preoccupied with dealing with getting the construction  
7 problems back on track.

8 I think I testified earlier that it was the  
9 expectation of Houston Lighting & Power that once we got  
10 show cause behind us, that we would move out with a  
11 fairly effective program and we'd get this project  
12 built. I frankly didn't know what the status of  
13 engineering was.

14 I am conversant with the ardors of nuclear  
15 engineering. It's a very tough area. It became  
16 exceptionally more -- or considerably more difficult in  
17 the late seventies. And I wanted to understand how was  
18 Brown & Root doing, where were they, where were they  
19 bogged down, what kind of resources may not be in  
20 sufficient supply to carry out an effective engineering  
21 program.

22 Quite frankly, as the vice-president in  
23 charge of engineering as well as construction, I had to  
24 get a benchmark fairly quickly. And if I had to leave  
25 it up to my own personal observations, it would take me

1 quite a bit of time to do so. So, that's the reason we  
2 undertook it.

3 I had no special knowledge of any broad  
4 quality problem and the only problems I was aware of  
5 were problems that either came to my attention because  
6 they happened to be specific issues that I had to  
7 address, or they may have been mentioned by some of my  
8 people as part of giving me some kind of an update as to  
9 the status of the job that might have preceded my  
10 arrival.

11 But the purpose of the Quadrex report was not  
12 to perform a quality-related audit of Brown & Root. It  
13 wasn't that at all.

14 Q Setting aside the Quadrex report for a moment,  
15 after you came to STNP, did you encourage or otherwise  
16 suggest that an independent third-party review of the  
17 quality of Brown & Root's design process and outputs be  
18 conducted?

19 MR. AXELRAD: Asked and answered. That was  
20 the precise question he asked before.

21 MR. SINKIN: I beg your pardon. He answered  
22 it as if my question had asked him was that why you  
23 hired Quadrex. I wasn't asking was that why you hired  
24 Quadrex. I was saying other than the Quadrex report,  
25 was there any --

1 MR. AXELRAD: In the beginning of the answer  
2 he said no and he then went on to explain what the  
3 purpose of the Quadrex review was.

4 MR. SINKIN: Of course, because he was  
5 answering in the context of the Quadrex review. My  
6 question is not looking at Quadrex, setting Quadrex  
7 aside, was there any other review that you encouraged?  
8 That's how the question should have been worded, but it  
9 was worded after you came to STNP, did you encourage or  
10 otherwise suggest that an independent third-party review  
11 of the quality of Brown & Root's design process and  
12 outputs be conducted. And we're not talking about the  
13 Quadrex report.

14 JUDGE BECHHOEPER: On that we'll overrule the  
15 objection.

16 A I'm just trying to think back were there any  
17 other studies that were undertaken in that time frame or  
18 desired to be undertaken.

19 I can't recall any instance where I either  
20 asked for one or conducted one.

21 Q Thank you.

22 Mr. Goldberg, do you remember in July of 1981  
23 being contacted about Brown & Root possibly contracting  
24 with Gibbs & Hill to replace them as architect engineer  
25 in certain functions on the project?

1           A     Well, I'm not sure of the exact time frame,  
2     Mr. Sinkin. I am aware that Mr. Jordan brought to my  
3     attention the matter of Gibbs & Hill which he asked do I  
4     know what work Brown & Root is thinking of calling upon  
5     Gibbs & Hill to perform. And then I proceeded to probe  
6     that same question with members of my staff because I  
7     personally had no knowledge of it at that point. And my  
8     staff indicated that, well, they think that Brown &  
9     Root's been talking to Gibbs & Hill, but it wasn't  
10    necessarily clear to them in what context. But we went  
11    about the business of then trying to benchmark what was  
12    Brown & Root talking to Gibbs & Hill about.

13                   And the understanding that we derived was as  
14    follows: That Brown & Root felt they needed additional  
15    technical resources to carry on the engineering  
16    activities and they were looking to Gibbs & Hill to do  
17    the work on Unit No. 2 so Brown & Root could concentrate  
18    on Unit No. 1. And we didn't at first flush find that  
19    to be a very useful idea from a couple of points of  
20    view.

21                   Number one, we didn't feel that the place to  
22    concentrate any extra resources was on Unit 2, we felt  
23    the place to concentrate it was on Unit 1. And,  
24    further, we were somewhat concerned about the prospect  
25    of how that work was at least at that stage being

1 considered. Gibbs & Hill was going to operate in their  
2 New York office based on information that would be  
3 transmitted through the mail. When you start to bring  
4 in in any large degree other engineering resources, it's  
5 extremely difficult to coordinate the interface of that  
6 resource with the rest of the operation if it's done in  
7 that fashion.

8           It struck us that a more useful relationship  
9 would be to have those engineers in Houston where they  
10 could work as an extension to the Brown & Root  
11 organization. And clearly we felt that the emphasis  
12 needed to be on Unit 1, not on Unit No. 2.

13           So, there was some dialogue. And to the  
14 extent that it was carried out, it indicated to us that  
15 the program still needed a lot of work before it would  
16 make any sense to us.

17           Q     Did you communicate that evaluation to Mr.  
18 Jordan?

19           A     I'm not sure whether I communicated that  
20 directly back to Mr. Jordan or whether I had  
21 conversations perhaps through Mr. Oprea on that regard.  
22 I know that we signaled back to our management that we  
23 didn't think that this was a very useful idea.

24           Q     Mr. Oprea was involved in this evaluation of  
25 the Gibbs & Hill proposal?

1           A     I don't think Mr. Oprea was involved in the  
2 evaluation. I think Mr. Oprea as head of the nuclear  
3 group was certainly interested in knowing what was going  
4 on and I'm saying I may have communicated back to Mr.  
5 Jordan possibly through Mr. Oprea, I just don't recall  
6 the detail.

7           Q     Did you at any time consider notifying the  
8 Atomic Safety and Licensing Board that Brown & Root had  
9 offered to essentially withdraw as architect engineer on  
10 Unit 2?

11           MR. AXELRAD: Mr. Chairman, I don't think  
12 that's a correct characterization of the testimony.  
13 There is nothing in there about Brown & Root --

14           MR. SINKIN: I'll rephrase it.

15           Q     (By Mr. Sinkin) Did you at any time consider  
16 notifying the Atomic Safety and Licensing Board that  
17 Brown & Root had done preliminary work to have Gibbs &  
18 Hill assume the Unit 2 design and engineering?

19           MR. AXELRAD: Mr. Chairman, I don't recall any  
20 testimony with respect to preliminary work.

21           MR. SINKIN: Well, it's the --

22           Q     (By Mr. Sinkin) Was it not true, Mr.  
23 Goldberg, let me ask a preliminary question, that there  
24 was a letter of intent floating back and forth between  
25 Gibbs & Hill and Brown & Root that hadn't been signed

1 but had been drafted?

2 A I don't think I really know one way or the  
3 other, Mr. Sinkin. As I recall, Brown & Root may well  
4 have conducted some almost private dialogues with Gibbs  
5 & Hill before the matter even came to my attention.  
6 Once the matter was the matter of a question, I think  
7 the answer I gave you previously sums up my  
8 understanding of the situation and where it basically  
9 ended up.

10 We did not think it made much sense. Brown &  
11 Root could not subcontract any portion of the  
12 engineering job without the express consent of the  
13 licensee. The licensee was not about to enter into any  
14 relationship of that caliber.

15 Q Let me go back to my question and try and  
16 phrase it in an unobjectionable manner.

17 Did you at that time, we're talking I think  
18 June-July 1981, in that time frame, probably early June  
19 of 1981 primarily, did you at that time consider whether  
20 Brown & Root's approach to Gibbs & Hill about Gibbs &  
21 Hill possibly doing the design and engineering of Unit 2  
22 instead of Brown & Root was a matter that should be  
23 informed to the Licensing Board?

24 MR. AXELRAD: Mr. Chairman, when an earlier  
25 question was raised by Mr. Sinkin he asked do you

1 remember in July 1981 being contacted by Brown & Root,  
2 et cetera, and Mr. Goldberg's first reply was I don't  
3 recall the time frame. I don't know where Mr. Sinkin is  
4 obtaining the early June probably or July time frame  
5 that he's using.

6 Q (By Mr. Sinkin) Okay. Well, I have refreshed  
7 my memory by CCANP Exhibit 76 which is a memo that  
8 evolved from Mr. Jordan. It did not involve you  
9 directly, Mr. Goldberg. That's how I was able to  
10 improve the time frame.

11 MR. AXELRAD: Is there a question presently  
12 pending? I objected to the earlier question for using a  
13 time frame which had not been testified to.

14 MR. SINKIN: That's fine and I was going to  
15 rephrase the question without the time frame.

16 MR. AXELRAD: All right.

17 Q (By Mr. Sinkin) Just at about this time when  
18 you were looking at the Gibbs & Hill idea, did it  
19 ever -- did you ever consider informing the Licensing  
20 Board of the information you had about the Gibbs &  
21 Hill/Brown & Root potential relationship?

22 A Well, Mr. Sinkin, you know, I don't personally  
23 understand why you would think I would inform the  
24 Licensing Board because an architect engineer working  
25 for me may for a moment have a notion to do something

1 which I would tell him we're not going to do. The  
2 responsibility for that ultimate decision would rest  
3 with the licensee.

4 I expressed the reasons why I didn't think  
5 that was a very useful idea. I'm not sure the Board  
6 would be interested in knowing all of the ideas that I  
7 have rejected that do not result in any work which would  
8 be of interest to the Board.

9 Q Who besides yourself, Mr. Goldberg, evaluated  
10 the proposals to replace Brown & Root?

11 A The principal --

12 MR. AXELRAD: I'm sorry, I hate to interrupt.  
13 Are we talking now about the proposals that were  
14 received in response to the request for proposal in July  
15 of '81? We're not talking any further about the Gibbs &  
16 Hill proposal?

17 MR. SINKIN: Yes, we are moving on from the  
18 Gibbs & Hill proposal to the responses to the RFP sent  
19 out July 24th, I believe, 1981.

20 Q (By Mr. Sinkin) Who besides yourself  
21 evaluated the proposals to replace Brown & Root that  
22 were received at that time?

23 A The principal persons involved in the  
24 evaluation were myself, Mr. Jordan and Mr. Oprea and we  
25 had solicited advice from Mr. Newman as it would affect

1 matters that we needed to consider involving what might  
2 be the kinds of issues that we will face in the  
3 licensing arena should we undertake to replace Brown &  
4 Root.

5 (No hiatus.)  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1 Q So Mr. Newman's involvement was on the question  
2 of the licensing?

3 A He also assisted me in reviewing my requests  
4 for proposal to assure that I had touched on those  
5 matters that would be important to address from a  
6 contractual point of view, and he also assisted me in  
7 evaluating some of the contractual terms. It was simply  
8 to obtain counsel of an attorney on a matter of future  
9 contract.

10 Q Other than licensing and contractual matters,  
11 did Mr. Newman have any involvement in the selection of  
12 the replacement?

13 A No, he just voiced his opinion in those  
14 particular areas.

15 MR. SINKIN: I regret the delay, Mr. Chairman,  
16 but I don't seem to be able to find a document that I  
17 know is here somewhere.

18 Q (By Mr. Sinkin) Mr. Goldberg, in your  
19 testimony at page 69, line 18 --

20 JUDGE BECHHOEFER: What page is that?

21 MR. SINKIN: Page 69, line 18.

22 Q (By Mr. Sinkin) -- you you state that  
23 application of 10 CFR 50.55(e) requires engineering  
24 judgment based on specific facts."

25 You recognize, Mr. Goldberg, that others may

1 have differing professional applications as to 50.55(e)  
2 to a particular finding in the Quadrex report?

3 A Yes, I recognize that.

4 Q Given the sheer volume of findings in the  
5 Quadrex report, there are many opportunities for such a  
6 differing professional opinion, were there not?

7 A Is that a question?

8 Q Were there not many opportunities for such a  
9 differing professional opinion given the sheer volume of  
10 findings?

11 A That's certainly a possibility, yes.

12 Q In that meeting with Dr. Sumpter and Mr.  
13 Robertson, were there times when you had differing  
14 professional opinions as to whether a given item was  
15 potentially reportable or not?

16 A I think this question, incidentally, is almost  
17 a duplicate of one asked just a few days, and the answer  
18 now is as ten is yes, there were occasions where, at  
19 first blush, we didn't have all the same understanding.

20 You have to understand is that Mr. Robertson  
21 and Dr. Sumpter had spent the previous afternoon and much  
22 of the evening before working quite diligently with the  
23 benefit of a lot of intelligence provided by a host of  
24 Brown & Root engineers that had been convened at the  
25 Brown & Root offices to review the substance of the

1 report.

2 I was, you might say, in the a position of  
3 where I didn't have the benefit of all that knowledge and  
4 a great deal of that had to be shared with me as we went  
5 through the report. And sometimes, we didn't get our  
6 minds focused in on all the same information at the same  
7 point in time. And there were points where we may have  
8 had differing opinions.

9 When we finally decided, however, on how a call  
10 was being made, it was unanimous, there was no dissenting  
11 opinions on each finding once we had reached a conclusion  
12 as to what that finding was.

13 Q On more than one occasion, have you had a  
14 different professional opinion than members of the NRC  
15 staff?

16 MR. AXELRAD: Mr. Chairman --

17 Q (By Mr. Sinkin) -- about --

18 JUDGE BECHHOEFER: Let him finish his question,  
19 first.

20 MR. AXELRAD: I'm sorry, I thought the question  
21 was finished.

22 MR. AXELRAD: I apologize for the interruption.

23 MR. SINKIN: That's quite all right.

24 Q (By Mr. Sinkin) On more than one occasion,  
25 have you had a different professional opinion than

1 members of the NRC staff on technical issues at the South  
2 Texas Nuclear Project?

3 MR. AXELRAD: Mr. Chairman, I object to that  
4 question as being overly broad and not specifically  
5 related to any of the issues in this particular  
6 proceeding.

7 In the course of design of a nuclear facility,  
8 there are any number of matters that are discussed  
9 between the Applicant and the NRC staff with respect to  
10 license submittals and information which needs to be  
11 supplemented in the record on matters of that kind. And  
12 I don't see how the fact that there may have been  
13 discussions of that type between the license Applicant  
14 and the NRC staff can have any relevance to the issues  
15 before this proceeding.

16 MR. SINKIN: Mr. Chairman, what I'm trying to  
17 get at is the attitude of this witness towards the NRC  
18 and its oversight as a measure of the character of the  
19 corporation as a whole and the attitude that he would  
20 bring to a review of the Quadrex report.

21 MR. REIS: Mr. Chairman, I support the motion  
22 to -- the objection to this question. Applicants, of  
23 course, before the NRC can dispute matters and they're  
24 encouraged to dispute matters that are -- where they  
25 think matters are not encompassed by regulation.

1 There's nothing wrong with an Applicant doing that.

2 The very -- the question is overly broad and  
3 seems to get at any time they said, "Well, gee, the  
4 regulation really says this rather than that. And we  
5 object it to."

6 Further, I don't think its prbative of any of  
7 the issues in this proceeding. It does not -- we're not  
8 here involved with the more broad general character and  
9 competence issue. We have two things that we're looking  
10 at; the necessity to bring the Quadrex report forward and  
11 the necessity to -- under both McGuire and under  
12 50.55(e), and the further question of whether they should  
13 have told us earlier about the plan to replace Brown &  
14 Root.

15 MR. AXELRAD: Mr. Chairman --

16 MR. REIS: I --

17 MR. AXELRAD: I'm sorry.

18 MR. SINKIN: Are you finished?

19 MR. REIS: I think if the question is read  
20 again, it will be evident how broad it is.

21 JUDGE BECHHOEFER: We're going to uphold that  
22 objection because the way it was asked, it would  
23 encompass matters where like under a reg guide, the  
24 commission says that an Applicant may propose alternate  
25 ways of doing things. And to bring all of those matters

1 under discussion, to make those matters under discussion  
2 would be as asked that question is much, much too broad.

3 MR. SINKIN: Okay.

4 Q (By Mr. Sinkin) Mr. Goldberg, I believe that  
5 you've testified that when you came to Houston Lighting &  
6 Power, you did not go back, you did not go backwards in  
7 time and review quality assurance audits that had been  
8 conducted by HL&P of the Brown & Root design and  
9 engineering process. Is that your recollection?

10 A Yes.

11 MR. SINKIN: Mr. Chairman, I'm going to ask the  
12 indulgence of the Board here for a moment. A document  
13 that was key to my cross-examination at this point has  
14 somehow disappeared. And it is possible that the Board  
15 has a copy of this document since it is at issue in the  
16 proceeding. It is not introduced into evidence as yet,  
17 but it was Exhibit A to CCANP's motion to reopen the  
18 transcripts from the Public Utility Commission.

19 Could I borrow your copy to use for a moment?

20 JUDGE BECHHOEFER: First I have to locate it,  
21 but second I've got to see if I have a lot of notes on it  
22 myself.

23 JUDGE BECHHOEFER: Off the record for a moment.

24 (Discussion off the record.)

25 JUDGE BECHHOEFER: Back on the record.

1 Q (By Mr. Sinkin) Mr. Goldberg, in the most  
2 recent Houston Lighting & Power rate case, before the  
3 Public Utility Commission of Texas, you were a witness,  
4 were you not?

5 A That is correct.

6 Q I'm going to show you a part of the transcript  
7 from that proceeding and ask you to read the questions  
8 and answers.

9 JUDGE BECHHOEFER: Would you identify  
10 transcript page, et cetera?

11 MR. SINKIN: Yes, I will as soon as I get  
12 there.

13 Q (By Mr. Sinkin) Maybe to get the copy, Mr.  
14 Goldberg, we're going to have to start fairly early. If  
15 you will read starting at transcript page 1355, line 19,  
16 the question, and proceed to page 1358, stopping at line  
17 eleven.

18 JUDGE BECHHOEFER: Are you asking him to read  
19 all that into our transcript.

20 MR. SINKIN: Yes.

21 JUDGE BECHHOEFER: Do we need it all?

22 MR. SINKIN: Yes, we do, to get the context of  
23 the answer, I believe we need all of it.

24 MR. AXELRAD: Wouldn't it be better to mark it  
25 as an exhibit or something?

1           MR. REIS: I would object to the procedure of  
2 him reading it all unless we first establish that it is  
3 probative or means something in this -- in the context.  
4 I object to the question in that it's not shown to be  
5 probative.

6           MR. SINKIN: Mr. Goldberg, I'll ask you to  
7 review the parts that I asked you to read and then we'll  
8 talk about whether it might be probative or not.

9           THE WITNESS: Where did you want this to start  
10 you, now?

11          Q     (By Mr. Sinkin) Starting -- well, I need to  
12 ask you a few questions to satisfy Mr. Reis' objection.  
13 Is this transcript dealing with the process HL&P used to  
14 evaluate new contractors to replace Brown & Root?

15          A     This does address some of the mechanics that  
16 were used, yes.

17          Q     The process used within HL&P to select the new  
18 contractor, some of them?

19          A     Yes.

20          MR. SINKIN: I'm prepared to have him read that  
21 if that satisfies you, Mr. Reis?

22          MR. REIS: I don't know exactly why the  
23 mechanics are relevant. I still think it's not --  
24 germane to the issue. We're dealing with when they were  
25 chosen --

1 MR. SINKIN: That's fine.

2 MR. REIS: -- chosen, and when the Board was  
3 notified. The mechanics they might have gone through  
4 might be interesting to know, from a general point of  
5 view. But I don't think it's relevant to this  
6 proceeding. We have very limited issues here.

7 MR. SINKIN: Mr. Chairman, the transcript at  
8 page -- I mean the testimony, Mr. Goldberg, at page 56  
9 answer 888, talks about the sequence of events that led  
10 to the replacement of Brown & Root as architect engineer  
11 and construction manager. This is part of that sequence  
12 of events.

13 I specifically asked Mr. Goldberg who, besides  
14 himself, evaluated proposals to replace Brown & Root.  
15 And he gave an answer to that question.

16 MR. REIS: Is the purpose to impeach the  
17 witness?

18 MR. SINKIN: Yes.

19 MR. REIS: Well, there are ways of doing that  
20 and this is not the way.

21 MR. SINKIN: This is a perfectly appropriate  
22 way, to have him read his previous sworn testimony.

23 MR. REIS: The way to do it is to pose the same  
24 questions again and ask him the questions and then  
25 confront him with the testimony. That hasn't been done.

1 JUDGE BECHHOEFER: I think there's an awful lot  
2 of pages --

3 JUDGE SHON: That has nothing to do with this.  
4 He should just read those questions that you --

5 JUDGE BECHHOEFER: Couldn't you just ask him a  
6 question based on like the top paragraph on 1357 or --  
7 won't that do it?

8 MR. SINKIN: I thought the easiest way and  
9 clearest way was to have him read the testimony he gave  
10 in response to questions on this same subject under oath  
11 before the Public Utilities Commission of Texas. The  
12 answers which directly contradicts his answers in this  
13 proceeding.

14 MR. AXELRAD: I would certainly object to his  
15 characterization of what that testimony --

16 MR. SINKIN: Obviously it's my  
17 characterization.

18 MR. AXELRAD: This subject matter is not  
19 tangentially relevant to anything that this Board has to  
20 consider in this proceeding.

21 MR. SINKIN: The essence of this proceeding  
22 among other things is the credibility of HL&P's  
23 management as stated in the Board's order that set forth  
24 issues for this proceeding.

25 MR. AXELRAD: Mr. Chairman, I guess one might --

1 one of my only objections is to have Mr. Goldberg have to  
2 go through the mechanics of reading three pages into the  
3 record. If Mr. Sinkin wants to read three pages into the  
4 record, let Mr. Sinkin read them in, as a prelude to any  
5 question he wants to ask such as whether that was the  
6 witness' previous testimony before the PUC.

7 MR. SINKIN: If that's the objection, I'll be  
8 happy to read it myself.

9 MR. PIRFO: That's not quite the staff  
10 objections, Mr. Chairman.

11 MR. SINKIN: I didn't think it was.

12 MR. PIRFO: I'm sorry, Mr. Sinkin has yet to  
13 establish that the testimony he would give here -- that  
14 Mr. Goldberg would give here, differs from the prior  
15 sworn testimony and he can't start from the back and say,  
16 "Here's your prior sworn testimony, it's different."

17 MR. SINKIN: He's already given the testimony  
18 which this testimony stands in my view in contradiction  
19 of. I don't need anymore testimony from him here.

20 MR. PIRFO: We're talking about testimony from  
21 any one or talking about Phase II testimony?

22 MR. SINKIN: What I'm saying is the testimony  
23 he gave today stands in contradiction to the testimony he  
24 gave before the Public Utility Commission of Texas in the  
25 Houston Lighting & Power rate case.

1           He has given testimony here today. I now want  
2 to put into evidence the testimony he gave before the  
3 Public Utility Commission. I would be happy to read,  
4 have --

5           MR. PIRFO: Which in Mr. Sinkin's view  
6 contradicts what he says here.

7           MR. SINKIN: Exactly.

8           MR. PIRFO: To move things along, we'll let Mr.  
9 Sinkin read it into the record.

10          JUDGE DECHHOEFER: Well, should it be read or  
11 should somebody make Xeroxes.

12          MR. PIRFO: I think definitely Xeroxes, but I'm  
13 not offering.

14          MR. SINKIN: I don't have a Xerox machine here,  
15 Mr. Chairman, and I --

16          MR. REIS: There's one down in the library  
17 downstairs.

18          MR. SINKIN: We can provide Xeroxes at some  
19 future time in the hearing, or at this point in the  
20 hearing.

21          MR. PIRFO: We would prefer to have it now if  
22 it's going to be read into the record as we read along  
23 it.

24          MR. SINKIN: You want me to go down to the  
25 library and --

1 MR. REIS: No, read it in.

2 MR. PIRPO: Strike that if it's not going to --  
3 the reason he's going to make copies is so that he does  
4 not have to be read into the record.

5 JUDGE BECHHOEFER: That's correct.

6 MR. PIRPO: So to that extent, we don't need  
7 the copy now. He can move the entire record later he  
8 gets it copied.

9 MR. SINKIN: Are -- where are we? Should I  
10 read it into the record or not?

11 JUDGE SHON: So he can --

12 JUDGE BECHHOEFER: Can you ask your questions  
13 without reading into the record and then you could put it  
14 into the record as an exhibit later?

15 MR. SINKIN: Mr. Chairman, I have no questions.  
16 The previous --

17 JUDGE BECHHOEFER: I'm sorry.

18 MR. SINKIN: This is a copy of prior sworn  
19 testimony.

20 JUDGE SHON: You're not going to point out any  
21 specific questions and answers in this testimony that  
22 contradict specific questions and answers and ask him to  
23 explain this or anything?

24 MR. SINKIN: I'm not going to ask him to  
25 explain this. If counsel, on redirect, wants to ask him

1 to explain it, let them do so.

2 JUDGE BECHHOEFER: Why don't we put in it the  
3 record and put the Xerox copies in when we get it. And  
4 just move that way. If there's no questions -- going to  
5 be further questions on this, in could be indicated that  
6 we will put in it the record now and just come up --

7 MR. PIRFO: That was the staff's assumption,  
8 that there was not going to be anymore questions.

9 JUDGE BECHHOEFER: I wasn't sure.

10 MR. SINKIN: No, I have no questions. Then the  
11 appropriate way would be to perhaps ask that the pages be  
12 in marked as a CCANP exhibit at this time and then move  
13 them into the record at this time and have argument at  
14 this time over whether they come in.

15 JUDGE BECHHOEFER: That would be the same --  
16 yes.

17 MR. SINKIN: Okay. Then I will ask -- it's all  
18 attached for the moment, but the transcript pages that I  
19 identified for the record, for which I will later supply  
20 copies, would begin at transcript 1355, and proceed  
21 through transcript 1358. I should give a beginning line.  
22 1355, line 19, proceeding forward to 1358, line eleven.

23 MR. REIS: The staff has no objection with the  
24 understanding that we haven't had a decent opportunity to  
25 review the item now and know that it is probative at all

1 to what it is offered for which is to impeach the  
2 witness. But with that caveat, the staff has no  
3 objection to its introduction.

4 MR. SINKIN: I should say that these pages  
5 would be marked as CCANP Exhibit 90.

6 MR. AXELRAD: We have no objection to the  
7 marking or the admission.

8 JUDGE BECHHOEFER: To the marking or the  
9 admission.

10 MR. AXELRAD: Whatever is happening.

11 MR. SINKIN: I move it into evidence, just to  
12 make it clear.

13 JUDGE BECHHOEFER: Okay.

14 The Board will accept those pages into  
15 evidence; you could -- subject to providing three copies  
16 for the court reporter.

17 MR. REIS: And the staff.

18 JUDGE BECHHOEFER: The Board has enough copies  
19 right now; the staff should have some and the Applicants --  
20 do you have with you or not?

21 MR. AXELRAD: My understanding, however, is  
22 that the testimony is going in for purposes of  
23 impeachment.

24 JUDGE BECHHOEFER: That's correct.

25 MR. AXELRAD: And that is its sole purpose.

1 MR. SINKIN: That's correct.

2 MR. PIRFO: To impeach his prior testimony in  
3 this proceeding.

4 JUDGE BECHHOEFER: Today.

5 MR. PIRFO: Well, yes, from anything --  
6 anything that's happened before this moment.

7 MR. SINKIN: That's right.

8 JUDGE BECHHOEFER: That's correct. That will  
9 be admitted and you could supply the reporter with  
10 copies.

11 MR. SINKIN: I will supply the reporter with  
12 copies.

13 JUDGE BECHHOEFER: I would appreciate your  
14 X'ing out the portions of the pages which are not -- put  
15 X's over them so that the casual reader will not at least  
16 look at the lines that you don't have any intention of --

17 MR. SINKIN: We will make a first copy, this is  
18 Judge Lamb's copies, X it and then make further copies.

19 (CCANP Exhibit 90 was marked for  
20 identification and received in  
21 in evidence.)

22 Q (By Mr. Sinkin) Mr. Goldberg, in your  
23 testimony at page 58, questions 89 and 90, and  
24 particularly I would call your attention to line 18,  
25 where you discuss the adequacy of Brown & Root's services

1 on STP generally. And my question will be whether in  
2 that line, you were addressing only the adequacy of Brown  
3 & Root's design and engineering services or their  
4 services on STNP generally as it states there.

5 A I think I was referring there in the  
6 engineering context.

7 Q On page 67 of your testimony, answer 98?

8 A I'd like to supplement my answer to this  
9 question.

10 Q To 98?

11 A Yes. You got into the questions and answers in  
12 90 that were not -- aren't we on page 58?

13 Q I'm sorry, you want to go back?

14 A I said I wanted to supplement my last answer.

15 Q Okay. So we're back to page 58 focusing on  
16 line 18.

17 A I don't think its fair to probably restrict the  
18 questions about their adequacy strictly in the  
19 engineering sense, because when I first joined HL&P, even  
20 before I joined HL&P, I had toured the site and I saw  
21 power plant that had been around for a long time that  
22 wasn't very far along. And I think that a broader  
23 perspective was that I had some questions about why it  
24 was that the power plant hadn't been more advanced. And  
25 I think it not only portended some questions about the

1 status of engineering but why it was that for the amount  
2 of time that expired, why their wasn't more built.

3 Q Now turning to page 67. Question 89, answer  
4 98, if you would review those for just a moment.

5 A I have read it.

6 Q You are referring in this question and answer  
7 to an answer given by Mr. Oprea in the same PUC hearings  
8 that we discussed a moment ago; were you not?

9 A That is correct.

10 Q Well, I should state that correctly. An answer  
11 that you were talking about an answer Mr. Oprea had given  
12 in Phase I of this proceeding, you were testifying in  
13 front of the PUC in the rate case.

14 A You better try that one all over again.

15 Q You are discussing a question that was asked of  
16 Mr. Oprea which he answered. Is that correct?

17 MR. AXELRAD: Are we talking about the sentence  
18 that begins on line 11?

19 MR. SINKIN: Line 11.

20 MR. AXELRAD: We have now gone to page 67,  
21 answer 98.

22 MR. SINKIN: Right.

23 MR. AXELRAD: And on line 11, there is a  
24 sentence when an answer to a question on Mr. Oprea's  
25 testimony before the Texas PUC. Is that the subject of

1 your question?

2 MR. SINKIN: Well, the answer is worded  
3 ambiguously. I'm afraid that may be part of the  
4 confusion.

5 Q The testimony of Mr. Oprea under discussion was  
6 not in fact before the Texas PUC, was it? It was before  
7 the Atomic Safety and Licensing Board in Phase I, was it  
8 not?

9 Perhaps that's an error in the testimony or  
10 perhaps Texas PUC is meant to refer to your testimony.  
11 We're not talking about Mr. Oprea's testimony before the  
12 Texas PUC, are we?

13 A We're talking about a question that you raised  
14 regarding Mr. Oprea's testimony back in Phase I of the  
15 hearings and this was raised during my testimony, or  
16 testifying, excuse me, before the Texas PUC.

17 Q Right. Okay.

18 MR. PIRFO: The staff may get a clarification --  
19 I thought the Exhibit A to the CCANP position, I  
20 apologize for not having a copy, but I was under the  
21 impression that was Mr. Goldberg's testimony. That's why  
22 I'm getting confused.

23 MR. SINKIN: We're getting confused. When you  
24 say "Exhibit A," you're referring to the motion to  
25 reopen.

1 MR. PIRPO: Yes.

2 MR. SINKIN: That's Mr. Goldberg's testimony  
3 before the Public Utility Commission. In that testimony  
4 he discusses Mr. Oprea's testimony in Phase I of this  
5 licensing procedure.

6 MR. PIRPO: Okay.

7 Q (By Mr. Sinkin) And it is that testimony by  
8 Mr. Oprea in Phase I that you are addressing in question  
9 and answer 98. Is that correct?

10 A It is with respect to a question that you  
11 raised during my testifying before the Texas Public  
12 Utility Commission regarding a statement made by Mr.  
13 Oprea during Phase I hearings before the Atomic Safety  
14 and Licensing Board.

15 MR. PIRPO: It's now clear to me.

16 JUDGE BECHHOEFER: Mr. Goldberg, I do think the  
17 statement in your testimony is confusing. In that it  
18 seems to say -- in that it seems to say that Mr. Oprea  
19 testified before the Texas PUC. I don't think that was  
20 the intent of the question.

21 THE WITNESS: It was not.

22 JUDGE BECHHOEFER: You may want to explain a  
23 little bit more what that sentence means. I think I know  
24 what it may mean.

25 THE WITNESS: I can explain what was intended

1 to be meant and perhaps we may have to do something about  
2 it, but apparently Mr. Sinkin, during a questioning  
3 session of myself when I was testifying before the Texas  
4 Public Utility Commission, asked about a statement made  
5 by Mr. Oprea during Phase I of the hearings.

6 So Mr. Oprea the testimony -- that's being  
7 referred to here was testimony Mr. Oprea gave in Phase I  
8 of the hearings before your Board. That's what was  
9 intended. Does that at least put in it better  
10 perspective?

11 JUDGE BECHHOEFER: I just wanted -- I think I  
12 understood it in any event, but I think the record should  
13 reflect it and I think it will now.

14 Q (By Mr. Sinkin) Maybe to help clarify the  
15 record, I will distribute what I will ask be marked as  
16 CCANP 91.

17 (CCANP Exhibit 91 marked  
18 for identification.)  
19  
20  
21  
22  
23  
24  
25

1 Q (By Mr. Sinkin) Mr. Goldberg, I would ask  
2 that you review page 1374 of the transcript in Exhibit  
3 91 through 1379.

4 JUDGE BECHHOEFER: 1379 or 1380? The last  
5 page here is 1380?

6 MR. SINKIN: Well, see, Judge Lamb had a note  
7 on his that he was missing page 1380. And I suspect --  
8 I hope on the exhibits you have 1380 in the one I  
9 distributed. Okay, then it should be through 1380.

10 JUDGE BECHHOEFER: And my other copy had 1380  
11 in it.

12 MR. SINKIN: For some reason, Judge Lamb's was  
13 missing.

14 Q (By Mr. Sinkin) Have you had a chance to do  
15 that now, Mr. Goldberg?

16 A Yes, I have.

17 Q Turning in the exhibit to page 1378, looking  
18 at lines 6 through 17 of that particular part of this  
19 exhibit, is that the question to Mr. Oprea that you are  
20 referring to in question 98 and answer 98 of your  
21 testimony here today?

22 MR. AXELRAD: Mr. Chairman, I believe that  
23 question is asked and answered in the question itself,  
24 question 98. It specifically quotes the question and  
25 quotes the answer.

1 MR. SINKIN: I agree that it does. I just  
2 want to be sure because there was some ambiguity in the  
3 wording of the answer as to where the testimony was  
4 given. See, there is Texas PUC transcript 1378. I just  
5 want to be sure that we're talking, in fact, about the  
6 same transcript pages in the -- I mean, fine. If you  
7 consider it asked and answered, I'll deal with it as  
8 asked and answered. That's fine.

9 Q (By Mr. Sinkin) Mr. Goldberg, in answer 98,  
10 line 7, you state that you do not think it was  
11 reasonable for Mr. Oprea to have understood that  
12 question, referring to the question in the exhibit, to  
13 ask about serious discussions focused on the removal of  
14 Brown & Root rather than our discussions about the need  
15 to explore alternatives.

16 MR. PIRFO: Objection.

17 MR. SINKIN: All I've done is quote the  
18 testimony.

19 MR. PIRFO: No, you didn't.

20 MR. SINKIN: What did I do wrong?

21 MR. PIRFO: You said reasonable. You said  
22 reasonable instead of unreasonable.

23 MR. SINKIN: Did I really?

24 MR. PIRFO: That's what I heard.

25 MR. SINKIN: I'm very sorry, very sorry.

1 Q (By Mr. Sinkin) Let me read it again. Answer  
2 98, line 7, "I do not think it was unreasonable for Mr.  
3 Oprea to have understood that question to ask about  
4 serious discussions focused on the removal of Brown &  
5 Root," or B&R, "rather than our discussions about the  
6 need to explore alternatives."

7 My question is when did you discuss with Mr.  
8 Oprea his understanding of what the question in Phase I  
9 meant to him?

10 MR. AXELRAD: A foundation question is  
11 necessary as to whether or not any such discussion took  
12 place.

13 MR. SINKIN: We'll do that.

14 Q (By Mr. Sinkin) Did you ever discuss with Mr.  
15 Oprea what the question asked of him in Phase I meant to  
16 him?

17 A No, I don't think I recall asking Mr. Oprea  
18 what it meant to him. As I testified at the Public --  
19 before the Public Utility Commission, it was my view  
20 then, as it is now, that whenever you ask somebody about  
21 were you involved in any discussions about the removal  
22 of Brown & Root, to a person who would be in a position  
23 to make a decision to remove Brown & Root, that doesn't  
24 mean anything until such time as that person has started  
25 to undertake action associated with such a development.

1           It's my view that the management of HL&P never  
2 undertook to even agree to pursue alternatives until  
3 June 29th of 1981. I have testified on numerous  
4 occasions, which you are most familiar with and also  
5 before this Board, that I was of the opinion that while  
6 we devote our full energies to trying to get the project  
7 on track with Brown & Root, that it is a useful  
8 management consideration to consider the possibility  
9 that in spite of that effort, we may not be successful.  
10 I had no way of knowing whether we would be or we would  
11 not be.

12           And I maintain that from about January of 1981  
13 until June 29th, on occasion I might bring that  
14 particular suggestion to the attention of Mr. Jordan or  
15 Mr. Oprea, and it was strictly to remind them that it  
16 would take time to even determine if there was an  
17 alternative. And I felt it was useful while we were  
18 working to solve the problems of the project to take  
19 advantage of that time window to make those  
20 explorations.

21           But no one that I can think about ever gave me  
22 any reason to believe that that was a serious  
23 consideration. And it wasn't until the meeting of June  
24 29th where Mr. Jordan, following the meeting that we had  
25 in San Antonio the Friday before and he was faced with

1 some rather hard evidence that the project was not going  
2 to be moving forward very expeditiously, counseled with  
3 Mr. Oprea, Mr. Barker and myself to enlist our views as  
4 to what we saw as the likely opportunities and likely  
5 developments on the project. And it was following that  
6 review that he authorized Mr. Oprea and myself to  
7 undertake an exploration to find out if there were any  
8 contractors in the industry that might be willing to  
9 consider taking over different facets of the project.

10 Q Moving to line 19 on page 67, you state that  
11 you think Mr. Oprea took your conversations as part of  
12 discussions we had from time to time about the  
13 desirability of exploring our options and not a  
14 discussion about the, quote, removal of Brown & Root,  
15 unquote, and he was right.

16 Did you ever discuss with Mr. Oprea his view  
17 of your discussions, conversations you had as to  
18 whether, in fact, this is how he viewed them?

19 A I can tell you quite frankly that Mr. Oprea  
20 was not at all interested in my suggestion --

21 Q Wait, Mr. Goldberg, I'm sorry to interrupt,  
22 but my question is really very simple, really very  
23 simple.

24 Did you ever discuss with Mr. Oprea his view  
25 of your conversations in that period at some time after

1 that period?

2 A I'm just trying to make sure, is this not the  
3 question you asked previously?

4 Q The question I asked previously was whether  
5 you had discussed with Mr. Oprea his understanding of  
6 the question Mr. Oprea had been asked in Phase I. Now  
7 I'm asking if you discussed with Mr. Oprea his view of  
8 the conversations you and he had that are discussed in  
9 this sentence in your testimony.

10 In other words, after the conversations at  
11 some point did you and Mr. Oprea sit down or stand up,  
12 whatever, have a discussion about those previous  
13 conversations where he told you that he took those  
14 conversations as part of discussions you had had from  
15 time to time about the desirability of exploring our  
16 options and not a discussion about the removal of Brown  
17 & Root?

18 A Mr. Sinkin, maybe I'm confused. I am almost  
19 certain that you asked previously did I ever  
20 specifically ask Mr. Oprea what he meant by that  
21 statement and I think I answered no, I didn't  
22 specifically ask Mr. Oprea what I thought he meant.  
23 That's my perception of what I think he meant.

24 Q Okay. See, the -- do you understand the  
25 distinction I'm making between your first sentence and

1 the second sentence? The first sentence addresses the  
2 questions asked during Phase I of that and his  
3 understanding of that question. My first question is  
4 did you ever discuss with him after Phase I what his  
5 understanding of that question was?

6 A I don't believe so.

7 Q And my second question was did you ever  
8 discuss with him after the conversations took place  
9 about seeking alternatives or whatever, whether his  
10 view -- did you ever talk to him about what his view of  
11 those conversations was?

12 A I don't believe so.

13 MR. SINKIN: Mr. Chairman, the reason I ask  
14 those questions is I don't think there's any basis for  
15 the witness to provide testimony on either point. And  
16 at this point I would move to strike the sentence on  
17 line 7 beginning "I do not think" and line 19 beginning  
18 "I think." It's pure speculation by the witness with no  
19 basis in fact.

20 JUDGE BECHHOEPER: Mr. Axelrad?

21 MR. AXELRAD: Mr. Chairman, I think it's  
22 perfectly appropriate for an individual who is an  
23 official of a company who has had a number of  
24 discussions from time to time on a related subject with  
25 another official to be able to express his own view as

1 to what he thinks those other remarks by the other  
2 official mean. It may be entitled to whatever weight it  
3 deserves based upon the basis for that particular  
4 statement, but that doesn't mean that the belief itself  
5 or the thoughts themselves of Mr. Goldberg are not  
6 entitled to some weight.

7 MR. SINKIN: Mr. Chairman --

8 MR. AXELRAD: In addition to which there may  
9 be some other basis. All he's asked about is any  
10 conversations that may have taken place. It may be on  
11 redirect there can be some indication of some additional  
12 basis for those. But whatever, it's a matter of weight  
13 and not a matter of being struck.

14 MR. PIRFO: The Staff was going to say to the  
15 extent, and would agree with Applicants' counsel, to the  
16 extent Mr. Sinkin thinks he's been successful in  
17 undercutting the force of his testimony, then it stays  
18 in the record and he's undercut the weight of it. But a  
19 motion to strike it is totally inappropriate.

20 MR. SINKIN: Mr. Chairman, I would only  
21 respond to one thing. I think Mr. Axelrad  
22 mischaracterized the actual statements. These are not  
23 statements by Mr. Goldberg on what he thinks something  
24 means, they are statements by Mr. Goldberg on what he  
25 thinks Mr. Oprea thinks something means. That's what I

1 found objectionable.

2 MR. PIRFO: To that extent he should have  
3 raised his objection a long time ago. If it's obvious  
4 on its face that it was strikable, if that's a word, he  
5 should have raised this when it was first introduced.  
6 He voiced no objection at that point.

7 So, to the extent it obviously should have  
8 been stricken on its face, he's out of time. To the  
9 extent he has undercut it by his cross-examination, then  
10 it simply goes to weight and it stays for whatever value  
11 it's worth.

12 MR. SINKIN: Then I will withdraw my motion to  
13 strike and leave the record as is.

14 JUDGE BECHHOEFER: I was going to ask whether  
15 there is any limitation, but I guess it's not relevant  
16 as to when a motion to strike can be asserted. I have  
17 often let in testimony at the start with the knowledge  
18 that motions to strike certain parts of it may be filed  
19 later and that has never raised any real problem  
20 procedurally.

21 MR. SINKIN: I think it is not uncommon in a  
22 proceeding for information to be elicited in  
23 cross-examination that provides a basis for a motion to  
24 strike that didn't exist before.

25 JUDGE BECHHOEFER: I do think, though, that

1 before we would grant any such motion, we would want to  
2 know further about Mr. Goldberg's source of information  
3 for the two sentences in question.

4 MR. SINKIN: Well, I'm withdrawing the motion  
5 to strike, Mr. Chairman, so we won't have to worry about  
6 that.

7 Q (By Mr. Sinkin) Mr. Goldberg, on page 68,  
8 question 99 in your testimony, could you identify for us  
9 the other portions of your testimony in Phase I which  
10 you reviewed regarding whether you should have mentioned  
11 Quadrex?

12 A Let's see if I have that with me.

13 Out in my car I've got a book of all the  
14 pertinent sections of testimony that I may have used the  
15 word engineer or engineering that went above and beyond  
16 the sections specifically cited by the Board. And I  
17 reviewed all those sections basically. It's quite a  
18 large book full of testimony.

19 MR. SINKIN: Maybe we can simplify this.  
20 Perhaps counsel can provide from his book just the page  
21 number of those particular pages.

22 MR. AXELRAD: I don't believe so, Mr. Sinkin.  
23 You're free to ask Mr. Goldberg any questions he can  
24 answer based upon his present recollection. I don't see  
25 any need to go and find specific pages of transcript.

1 He's described what he's looked at in his testimony.  
2 You're free to ask him whatever he recalls and whatever  
3 answers you get when you ask those questions will  
4 determine whatever value the testimony has.

5 MR. SINKIN: Well, Mr. Chairman, there's a  
6 very general statement by Mr. Goldberg here that he  
7 reviewed other portions of his testimony and found no  
8 answers that he believed called for mentioning Quadrex.  
9 There is an ability -- it's not a matter of  
10 recollection, it's right out in his car. There is an  
11 ability to have in the record what portions of the  
12 transcript he reviewed that it is his testimony did not  
13 call for him to mention Quadrex.

14 MR. PIRFO: The Staff would maintain that that  
15 ability lies with Mr. Sinkin to bring it out on  
16 cross-examination.

17 JUDGE BECHHOEPER: I think you can assume that  
18 he reviewed all of his testimony.

19 MR. SINKIN: Well, he apparently didn't review  
20 all of his testimony, he reviewed those parts of his  
21 testimony in which the word engineer and engineering  
22 appeared.

23 THE WITNESS: I think the key words that would  
24 have attracted my attention were words such as design or  
25 engineering or engineer. Wherever there was any

1 connotation that it had a reference to the design  
2 aspects in whatever context it might have been used, in  
3 many respects it had no context at all, those were the  
4 sections that I reexamined to determine whether there  
5 was any matter under discussion that would have been  
6 appropriate to mention Quadrex as part of whatever the  
7 issue was.

8 Q (By Mr. Sinkin) How many sections, separated  
9 sections of the transcript do you remember reviewing?

10 A There are quite a few of them, Mr. Sinkin. If  
11 you ask me to give you a ballpark, why, it might well  
12 have been forty or fifty different sections. I'd have  
13 to actually look at it again and give you an exact  
14 number. I'm just telling you that I looked at any area  
15 of the testimony that might have even by the most  
16 liberal connection suggested that we were talking about  
17 engineering.

18 Q Okay. Talking only about the hiring of  
19 Quadrex as opposed to the period subsequent to their  
20 hiring, when you hired Quadrex did you want to keep the  
21 fact of their hiring confidential within the company?

22 A No, I would hardly characterize it that way in  
23 view of the fact that I advised the Nuclear Regulatory  
24 Commission that we had engaged an outside consultant to  
25 assist us in performing an overview of Brown & Root's

1 engineering. And I don't know whether I mentioned  
2 Quadrex. It's very possible I did.

3 Q You advised Mr. Sells that you had hired at  
4 least a consultant, whether you named the consultant or  
5 not?

6 A That is correct.

7 Q Other than Mr. Sells, did you advise anyone  
8 outside the company that Quadrex had been hired or that  
9 a consultant had been hired?

10 A I'm pretty sure it may have come up through  
11 one of our management -- one or more of our management  
12 committee meetings in which we would have shared that  
13 information with our partners, the City of Austin, the  
14 City of San Antonio and Central Power & Light Company.

15 Q Other than Mr. Sells and the management  
16 committee, did you inform anyone else that you remember?

17 MR. PIRFO: I object to this, Your Honor. I  
18 think it's been established that it wasn't held  
19 confidential. I mean, are we going to find out if the  
20 janitor of San Antonio knew? I mean, how far down this  
21 line are we going to go, other than the NRC and Austin?  
22 I mean, how far are we going to go.

23 MR. SINKIN: We haven't --

24 MR. PIRFO: I mean, there's a lot of people  
25 out there that probably were not told. That's why I

1 don't understand how far are we going to keep going on  
2 this. And I'm not sure that it's probative or relative  
3 to, at any rate, who knew about it or who did not know  
4 about it.

5 MR. SINKIN: It's a measure of how the hiring  
6 of Quadrex was treated who was told about it. We've  
7 learned that one official of the NRC and members of the  
8 management committee who are essentially the Applicants  
9 for the license here, that's in my view basically within  
10 the structure of the corporation, although not  
11 formally.

12 MR. PIRFO: Well, it's certainly relevant to  
13 that because that's the question, so it's relevant to  
14 the question that was asked by definition. But now it's  
15 relevant to the issues in this proceeding, I have no  
16 idea.

17 MR. SINKIN: Well, whether they kept the  
18 hiring of Quadrex confidential as a matter of policy  
19 would give an indication whether the study itself was to  
20 be viewed as a confidential report when it began.

21 MR. PIRFO: The previous three questions have  
22 established that it wasn't held confidential. I don't  
23 know how far you want to go.

24 MR. SINKIN: Perhaps to you they have  
25 established that.

1 JUDGE BECHHOEFER: I think we'll sustain that  
2 objection.

3 MR. SINKIN: Okay.

4 Q (By Mr. Sinkin) On July 7th, 1981, Mr.  
5 Goldberg, did Brown & Root deliver to you a  
6 comprehensive response to the Quadrex findings along  
7 with a plan to address those findings?

8 A That was July 7th?

9 Q 7th, 1981.

10 A That sounds like the right time frame, Mr.  
11 Sinkin. I'm just having trouble getting my fingers on  
12 that date. But it was in July. It sounds about right.

13 Q I think that may even be an Applicants'  
14 exhibit, now that I think about it. But anyway -- all  
15 right. Fine.

16 By July 7th the determination had already been  
17 made within HL&P to seek alternatives to Brown & Root;  
18 is that correct?

19 MR. AXELRAD: The testimony so far had been to  
20 seek whether or not an alternative was available.

21 MR. SINKIN: To seek alternatives.

22 MR. AXELRAD: To see whether an alternative  
23 was available. That has been the previous testimony.

24 Q (By Mr. Sinkin) To see whether alternatives  
25 were available to Brown & Root by July 7th, that had

1 been the decision; is that right?

2 A The decision to determine if any alternatives  
3 existed was made on June 29th, so that is correct.

4 Q Did you give any serious review to the Brown &  
5 Root response delivered to you on or about July 7th?

6 MR. AXELRAD: Mr. Chairman --

7 JUDGE BECHHOEPER: Could I just ask the  
8 witness if, Mr. Sinkin as well -- one of the documents  
9 that the Applicants gave us is a letter dated July 16,  
10 1981. And before we start throwing July 7 around too  
11 much, could I ask -- I don't want to introduce this or  
12 anything like that, but could I ask someone to identify  
13 whether this is what's being spoken of? It's document  
14 number 47 of the first batch.

15 Maybe I should just show it to the witness for  
16 purposes of clarifying the date.

17 Mr. Pirio?

18 Q (By Mr. Sinkin) Is that the response that we  
19 should be addressing, Mr. Goldberg?

20 JUDGE BECHHOEPER: You might want to look at  
21 it too to make sure I have picked out --

22 A That is the response.

23 Q (By Mr. Sinkin) So, we really should be  
24 talking about July 16th. I'm sorry.

25 All right. Let me --

1 MR. AXELRAD: Mr. Chairman, if I could make  
2 just one thing clear. The July 16 letter is, in fact,  
3 the letter that I believe Mr. Sinkin is making inquiry  
4 about. The copy that the Board has, which is obviously  
5 the copy that we did produce, has attached to it an  
6 Enclosure 1 consisting of three pages which is, in fact,  
7 the Enclosure 1 to the letter of July 16.

8 It also has attached a large amount of  
9 material, Enclosure 1 and Enclosure 2, which were  
10 enclosures from the previous May 8 letter and really  
11 should not have been attachments to this particular  
12 letter. It may well be that when we produced it those  
13 materials were attached in the copy we had in our file.  
14 But I just wanted to avoid any confusion if there's any  
15 further discussion of this document as to what the real  
16 enclosure of this document is.

17 JUDGE BECHHOEFER: I just wanted to bring it  
18 around to clarify a date.

19 Q (By Mr. Sinkin) In order to avoid confusion,  
20 let's do this, Mr. Goldberg. In July of 1981, did Brown  
21 & Root deliver to you a comprehensive response to the  
22 Quadrex findings along with a plan to address those  
23 findings?

24 A That is correct.

25 Q By the time they delivered that to you, the

1 determination had been made to find out --

2 MR. SINKIN: What are the words you're  
3 comfortable with, Mr. Axelrad? To --

4 MR. AXELRAD: Whether an alternative was  
5 available.

6 Q (By Mr. Sinkin) -- to find out whether an  
7 alternative was available to Brown & Root; is that  
8 correct?

9 A That is correct.

10 Q In light of that determination, did you spend  
11 time reviewing that Brown & Root response and attempting  
12 to verify whether Brown & Root was implementing that  
13 response?

14 MR. AXELRAD: Mr. Chairman, that's the point  
15 at which I sought to object before. The issue in this  
16 proceeding is whether or not the Quadrex report should  
17 have been provided to the NRC prior to the time that it  
18 was provided, namely at the time it was received back in  
19 May.

20 The actions taken by Brown & Root and/or HL&P  
21 after that May reportability time frame with respect to  
22 actions to actually deal with the substantive aspects of  
23 the Quadrex report are not issues in this proceeding.  
24 The actual actions that were taken with respect to that  
25 are not in controversy here and I object to the question

1 as dealing with matters that are not relevant to the  
2 issues, would not be probative, and it would just get us  
3 involved in a review of additional matters which are  
4 outside the scope of the proceeding.

5 MR. SINKIN: I have a response to that, Mr.  
6 Chairman.

7 JUDGE BECHHOEFER: I was going to ask you, are  
8 you intending to ask that question to show when the  
9 decision to replace Brown & Root was, in fact, made? Is  
10 that the purpose of your question?

11 MR. SINKIN: No, Mr. Axelrad is correct, I'm  
12 dealing with the Quadrex reportability question. From  
13 earlier testimony of Mr. Goldberg -- there was earlier  
14 testimony of Mr. Goldberg that he was still considering  
15 whether to turn the entire report over to the NRC for  
16 quite sometime after May of 1981, but he was waiting  
17 until information came in from Quadrex to decide whether  
18 to turn the report over as a whole.

19 This question is addressing the Brown & Root  
20 comprehensive response and whether, in fact, when it  
21 arrived he paid any attention to it, whether he really  
22 reviewed it and sought to see if they could implement  
23 the changes, or whether the fact that the decision had  
24 already been made to see if there were alternatives  
25 available influenced him not to look at it in any great

1 detail. That's where I'm going.

2 MR. AXELRAD: Mr. Chairman, Mr. Sinkin has  
3 mischaracterized the previous testimony. Mr. Goldberg  
4 at no time said that he was still considering whether  
5 the entire report should be turned over to the NRC. The  
6 question was asked with respect to the meeting on  
7 September 8th with Region 4 as to whether or not it was  
8 possible that as a result of additional information  
9 developed, the entire report might be provided.

10 As the Board chairman himself has indicated in  
11 previous time, anything is possible and that is  
12 obviously the context in which the witness understood  
13 Mr. Sinkin's question. There was no testimony to the  
14 effect that there was active consideration being given  
15 between May 7th and September 8th or anytime around that  
16 time frame to actually -- consideration to whether or  
17 not the entire report should be turned over. If  
18 anything, the testimony of the witness is to the  
19 contrary.

20 The information which Mr. Sinkin is now  
21 talking about is information with respect to a  
22 corrective action plan which had nothing to do with any  
23 further review of the reportability of the Quadrex  
24 report, but only actions to be taken to deal with the  
25 substantive matters that have been raised in the Quadrex

1 report, and that has nothing to do with the question of  
2 reportability. Obviously, if in the course of doing --  
3 taking corrective action or doing additional analyses  
4 any additional matters were found that would then be  
5 reportable, those would be reported. But that was not  
6 the purpose of the directive action plan.

7 MR. SINKIN: Let me try this, Mr. Chairman.  
8 I'll withdraw the question for the moment.

9 Q (By Mr. Sinkin) Between May 8th, 1981 and  
10 September 8th, 1981, Mr. Goldberg, did you revisit in  
11 your own mind your decision not to turn the entire  
12 report over to the NRC?

13 A On May the 8th I was persuaded that that  
14 report was not reportable to the Nuclear Regulatory  
15 Commission and that was in concert with the reviews  
16 conducted by Brown & Root and the discussions and  
17 recommendations that I was receiving from the other two  
18 senior experienced engineers within Houston Lighting &  
19 Power Company.

20 I visited with the Nuclear Regulatory  
21 Commission to give them their briefing and the NRC asked  
22 the question have you considered turning in the entire  
23 report and the answer I gave was, yes, that has been  
24 considered and they said, well, you know, don't lose  
25 sight of that. And clearly had we come upon any

1 information that was contrary to our understandings that  
2 led to the decision that was made on May the 8th, then  
3 that would be a matter that we would have to consider at  
4 such time that we came upon any other information.

5 Q When the NRC asked you the question have you  
6 considered making a 50.55(e) report of the entire report  
7 and you answered yes, that has been considered, were you  
8 referring strictly to May the 8th, 1981 or between May  
9 the 8th, 1981 and September the 8th, 1981, did you  
10 revisit the decision made on May the 8th?

11 A I just explained to you, Mr. Sinkin, we made  
12 the decision on May the 8th. It was based on the  
13 information and the reviews conducted at that point in  
14 time. There was little or no doubt in our mind that  
15 that matter did not require reporting as a total entity  
16 to the Nuclear Regulatory Commission.

17 It is in the realm of possibility, however  
18 slight, that just maybe if there's something that had we  
19 had in front of us, we might have had a different  
20 decision. We didn't think so then, but I certainly  
21 wouldn't foreclose forevermore the possibility that  
22 something might surface.

23 When the Nuclear Regulatory Commission asked  
24 the question during the review up in Arlington, it would  
25 be a little bit presumptuous on my part if I were to say

1 to them that I would never reconsider the decision. I  
2 indicated the basis of all the information available to  
3 us, that that was our decision. I had no new  
4 information between May 8th and the visit with Arlington  
5 that would change that decision and that was the context  
6 of the statement I made to them.

7 Q Would it be correct to characterize your  
8 attitude from May 8th to September 8th as an attitude  
9 that I've made the decision; should something surface  
10 that changes my mind, I'll think about it, but otherwise  
11 I've made my decision?

12 A I would hope that my answer was fairly  
13 complete. I don't know whether that's a fair  
14 characterization. It may well be.

15 Q Mr. Goldberg, at this time what do you view as  
16 the most significant design and engineering deficiencies  
17 that have been found at the South Texas Nuclear Project  
18 since Brown & Root left the project?

19 MR. AXELRAD: Mr. Chairman, I'm not sure I  
20 understand the relevance of that question to any of the  
21 issues in this proceeding.

22 MR. SINKIN: Well, there's going to be a  
23 follow-up question, Mr. Chairman, as to which one of  
24 those have produced a notification to the Nuclear  
25 Regulatory Commission of a potentially reportable

1 finding.

2 MR. REIS: How is that probative of any issues  
3 in this proceeding?

4 MR. SINKIN: It is probative of the competence  
5 of Mr. Goldberg at this point to make those  
6 determinations.

7 MR. REIS: Mr. Chairman, there have been a  
8 hundred reports since then, so I don't know where we're  
9 going. I'm informed it's about a hundred.

10 MR. SINKIN: Mr. Chairman, maybe we can test  
11 this in the negative, whether there were --

12 JUDGE BECHHOEFER: I'm going to sustain the  
13 first one just to set the record straight because it is  
14 too broad.

15 MR. SINKIN: All right.

16 JUDGE BECHHOEFER: And covers too many things  
17 that would not be probative.

18 Q (By Mr. Sinkin) Mr. Goldberg, since Brown &  
19 Root left the job up until today, can you think of three  
20 design deficiencies that were in your mind perhaps a  
21 close call as to whether they were notifiable to the NRC  
22 under 50.55(e) and your decision was not to notify the  
23 NRC? I'm seeking the three that might stand out above  
24 the others.

25 A Is your question three that didn't even get

1 called in as potential?

2 Q That's correct. Three where you made the  
3 determination that there was not a potentially  
4 reportable finding.

5 A We really have to visit the IRC records for  
6 that, to be candid with you. The IRC brings to my  
7 attention matters -- well, actually it's brought to my  
8 attention principally through the licensing manager,  
9 matters that are potentially or reportable, as the case  
10 might be.

11 From time to time I'll call attention to the  
12 licensing manager, as I testified earlier, that matters  
13 that have come to my attention need to be examined for  
14 reportability. Now, I can perhaps maybe reflect on some  
15 of those that I thought had some potential and then they  
16 were reviewed and they weren't reported.

17 Q Before you head down that road, my question  
18 was really those that you personally made the decision  
19 were not reportable and therefore you wouldn't have  
20 forwarded necessarily -- let's just take those.

21 Here are the conditions. You see something  
22 that might be potentially reportable. You decide it is  
23 not potentially reportable and you do not review -- you  
24 do not send that material over to the IRC for a review  
25 of your decision, you just make the decision that it's

1 over with. Three in that category that stand out in  
2 your mind where it was a judgment call one way or the  
3 other.

4 A Well, Mr. Sinkin, you've posed a rather  
5 interesting hypothetical. Now it's coming back to what  
6 did I see that my mind computed and decided this isn't a  
7 matter that I'm going to bring to the attention of the  
8 IRC because I don't see the substance to even warrant  
9 their review of the matter for potential reportability.  
10 Is that the character of the question?

11 Q Yes, but we're looking for the three that  
12 would have been a close call as to whether you would  
13 make that decision or not.

14 A When you say a close call, you know, you  
15 either see the potential or you don't. And if you don't  
16 see it, it isn't a close call.

17 Q Well, if you --

18 MR. PIRFO: Chairman Bechtel, I'm going to  
19 object at this point. I realize that the question about  
20 50.55(e) reportable in close questions is specifically  
21 determined to be addressed by the Board's sixth  
22 prehearing conference order. But I think the Board's  
23 direction goes to the method and the procedure by which  
24 this determination is made. There's nothing in there,  
25 with the exception of 83-01 I believe it was, of

1 specific examples to be addressed. And I don't think  
2 it's appropriate to talk in terms of pick three that you  
3 think were the most important and what was important  
4 about that one, but rather an overview of the  
5 procedure.

6 (No hiatus.)  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1 MR. SINKIN: Part of the the procedure, Mr.  
2 Chairman, is that someone like Mr. Goldberg can make the  
3 determination all by himself. We've been through that  
4 before.

5 JUDGE BECHHOEFER: Let me ask a clarifying  
6 question.

7 The way I read the procedures, which have been  
8 sent to us, the close call question that we posed would  
9 arise after it got to the IRC. And we asked, then, for  
10 some description about how such questions would be  
11 handled.

12 You would not normally, or even as a matter of  
13 procedure, am I not correct, that you would not be  
14 involved in determining whether a matter should be  
15 reported to NRC unless it had first come to the attention  
16 of the IRC or unless you happened to personally see  
17 something yourself you thought should be considered for  
18 reportability.

19 THE WITNESS: That's correct, Mr. Chairman.  
20 And if you don't mind, I'd like to just add, in case  
21 there was any question about the degree of this practice,  
22 that in my recollection, matters that are going to be  
23 reported to the NRC, I require the IRC chairman or the  
24 licensing manager, to inform me of any matters that are  
25 being reported. That's strictly so I can remain current

1 on matters that have that kind of importance.

2 And I can recall dialogues where I might ask  
3 questions to understand the character of the problem. I  
4 don't recall any instances where I ever caused a report  
5 not to be made.

6 MR. REIS: I can recall one conversation where  
7 the IRC chairman was going to call in, I think there were  
8 three issues, and I think he had two of them classified  
9 as potential and one he thought was reportable. We  
10 discussed the reportable one.

11 And as I recollect, there were sufficient  
12 uncertainties even on that one that it was agreed that  
13 that would be called in also as a potential.

14 So it was only a question of whether it was --  
15 whether we had all the facts to be sure it was reportable  
16 versus potentially reported.

17 But with that exception, I can't remember any  
18 instance where I influenced a decision on whether it  
19 would or wouldn't be called in.

20 But to the extent that every person charged  
21 with any technical responsibility or quality  
22 responsibility for the project, anyone who sees a  
23 condition or facts that would cause that person to wonder  
24 whether or not what they were looking at or what they  
25 were considering might constitute may be a matter for

1 reportability, they are instructed by our procedures to  
2 bring it to the attention of the engineering project  
3 manager with a deficiency evaluation form, and then there  
4 is a process by where that person makes an initial  
5 screening and in parallel.

6           However, the IRC is also alerted to the matter  
7 such that if the engineering project manager decides that  
8 it is not worthy of the IRC's review, the IRC is not  
9 blind sided, they have access to the same information and  
10 it's possible they could call it differently and  
11 undertake the review nevertheless.

12           But the responsibility that I have in regard to  
13 identifying potential reportability matters is no  
14 different than any other person in the technical or  
15 quality side of the house. But if we see something that  
16 looks unusual, we request that a review be undertaken.

17           JUDGE BECHHOEFER: On the other side of the  
18 coin, do you routinely review determinations by the IRC  
19 not to report a particular matter?

20           THE WITNESS: On the parts that I have brought  
21 to the --

22           JUDGE BECHHOEFER: No, just in general, first.

23           THE WITNESS: In a general sense --

24           JUDGE BECHHOEFER: Do you routinely review  
25 their determinations -- I'm not talking about matters you

1 raised now.

2 THE WITNESS: The licensing manager routinely  
3 performs that function. Mr. -- well we have a licensing  
4 manager.

5 JUDGE BECHHOEFER: I know.

6 THE WITNESS: -- that oversees the conduct of  
7 affairs of the IRC. And that gentleman reports directly  
8 to me.

9 JUDGE BECHHOEFER: But you do not routinely  
10 review each determination not to report.

11 THE WITNESS: No, sir. The only areas where I  
12 would take perhaps a personal interest is in a matter  
13 that I thought I saw the potential and if the IRC's  
14 decision was it was not reportable, I'd be vitally  
15 interested in understanding the character.

16 And when matters come to my attention which --  
17 whether I direct it to go to the IPC or somebody else  
18 directs it to go to the IRC, if it's a matter that  
19 intrigued me and the judgment is that it's not  
20 reportable, I'll want to understand those things, too.

21 It's a question of which matters am I  
22 personally aware of that are going to the IRC; they are  
23 usually the ones that have a high degree of provocation  
24 or it's not likely I would be aware of them.

25 There are some matters that do flush up to a

1 fairly high level of management and those are the ones  
2 that invariably I have a lot of personal follow up on.

3 JUDGE BECHHOEFER: The Board does not think  
4 that at least your latest question or the question asking  
5 Mr. Goldberg to highlight, say three design deficiencies  
6 which were close calls, in the context of the way their  
7 procedure works, I'm not sure that's a meaningful  
8 question.

9 MR. SINKIN: I'll withdraw that and ask a  
10 different question.

11 Q (By Mr. Sinkin) Mr. Goldberg, you've said in  
12 your answer to the charges, you seem to have set a fairly  
13 low threshold for whether something goes past you to the  
14 IRC.

15 I think the words you used were something which  
16 causes a person to wonder if maybe it's potentially  
17 reportable. That's a fairly low threshold. Are you  
18 saying that that is the threshold that generally operates  
19 from your office, if something comes to your attention if  
20 you sort of wonder if it might be potentially reportable,  
21 then you just send it right on to the IRC?

22 A Well, you have to appreciate and try and  
23 understand what would cause someone to wonder. Clearly,  
24 we're talking about matters that would be safety related;  
25 we've to be talking about matters for which there is a

1 considerable degree of uncertainty; for example, and it's  
2 very difficult to talk in abstract terms when we talk  
3 about these matters.

4 I think we had a case where radiographic film  
5 for a weld on a reactor vessel was missing. Now we  
6 didn't know the character of that problem; the fact that  
7 it was of a vital quality interest and that it was  
8 missing; we didn't have any other intelligence. And it  
9 struck us that that was something that had a lot of  
10 potential; it might represent an isolated situation, it  
11 might represent one of many.

12 So we called that in as potentially reportable.  
13 I provoked the question, "What do we know about it?" We  
14 didn't know anything about it. And we had little  
15 opportunity to put in it any kind of perspective in the  
16 short term.

17 It wasn't the kind of thing that you get all  
18 the answers to quickly. And that got called in as a  
19 potential. And one has to have an appreciation for the  
20 business that you're in, and the potential character of  
21 the problem.

22 If a total stranger came in off the street, I'm  
23 not sure even given the most precise legal definition of  
24 50.55(e), that they'd still be able to apply it.

25 Q Because it's a judgment call that you apply

1 your experience to; is that true?

2 A And you have to have knowledge of the business  
3 that you're in and what kinds of things provide the very  
4 potential that that regulation is attempting to address.

5 Q Who is it that routinely performs the function  
6 of reviewing the decisions of the IRC?

7 A I think I indicated earlier, it is the  
8 licensing manager.

9 Q And the name of the licensing manager, Mr.  
10 Goldberg, the name?

11 A Mr. Mark Wisenburg.

12 JUDGE BECHHOEFER: You're going to see him in a  
13 few days.

14 Q (By Mr. Sinkin) Mr. Goldberg, if you had it to  
15 do over, would you do anything differently today than you  
16 did on May 8th, 1981 in terms of reporting the Quadrex  
17 findings or giving the Quadrex report to the NRC staff or  
18 the Atomic Safety and Licensing Board?

19 A I wouldn't have called it any differently. I  
20 don't think that what we're going through today would  
21 change the fact that that judgment was predicated on  
22 quite a few years of nuclear experience and not just my  
23 own, but those of the other two most experienced  
24 engineers in Houston Lighting & Power did input of all  
25 the intelligence from Brown & Root and we have from time

1 to time been very critical of Brown & Root.

2 But I would submit that the man that was in  
3 technical charge of Brown & Root at the time that we were  
4 reviewing the Quadrex report is a seasoned professional  
5 with almost as many years, perhaps he has maybe slightly  
6 more years of experience than I, in the nuclear industry.

7 So we were not dealing with a bunch of amateurs  
8 making these evaluations and I do not believe that in  
9 retrospect, I would call it any different today than I  
10 called it then.

11 MR. SINKIN: That concludes my cross-  
12 examination, Mr. Chairman?

13 JUDGE BECHHOEFER: Okay.

14 MR. AXELRAD: Now this might be a logical time  
15 to take a break.

16 JUDGE BECHHOEFER: That's what I was just  
17 asking. Will the staff -- is your time still what it  
18 was.

19 MR. PIRFO: Yes.

20 JUDGE BECHHOEFER: Okay. Why don't we take a  
21 fifteen minute break and be back.

22 (Recess.)

23 JUDGE BECHHOEFER: Okay, Mr. Reis or Mr. Pirfo.

24 MR. PIRFO: I'll be doing the questions. Thank  
25 you.

1  
2 CROSS-EXAMINATION  
3

4 BY MR. PIRFO:

5 Q Mr. Goldberg, in the commissioning of the  
6 Quadrex report, I believe you testified that you sought  
7 to include areas of special interest to the NRC. Is that  
8 correct?9 A I think I was principally focusing on not so  
10 much -- I don't think it was areas of interest. I think  
11 it was areas that constituted the more difficult nuclear  
12 engineering activities. I think by definition those  
13 would be of interest to the NRC.14 Q So you define the areas of special interest as  
15 more difficult engineering?16 A The two principle areas that I was generally  
17 trying to get an assessment on Brown & Root's  
18 operation was: Did they have the resources to deal with  
19 that portion of the engineering activities that were  
20 nuclear, because those are somewhat different than just  
21 normal power plant engineering activities, and in  
22 particular, were they in tune with the more difficult  
23 requirements that faced the industry.24 There were a lot of new requirements that had  
25 come along since Brown & Root took the job. And I was

1 interested in understanding were they aware of what kind  
2 of problems they faced.

3 Q After you were given the Quadrex report in the  
4 May 8th meetings with, I believe it was Dr. Sumpter and  
5 Mr. Stanley, did you discuss separately each of the  
6 discipline findings in those meetings or was it the just  
7 simply the most serious discipline findings?

8 A It was the most serious discipline findings.

9 Q What about the generic findings?

10 A We had focused on generic findings to the  
11 extent that we had each read them, we were each generally  
12 aware of the areas that they addressed, and as we went  
13 through the specific discipline findings, we were able to  
14 start to tie together certain discipline findings that  
15 might have formed the pattern that Quadrex thought they  
16 saw when they wrote up their generic findings.

17 Q Did you see that pattern?

18 A Well, in certain areas, we could see some -- we  
19 could see some specifics that might have led Quadrex to a  
20 generic finding. That might not necessarily, in itself,  
21 confirm that the generic finding was correct. But at  
22 least we could see some connection between the two.

23 Q Okay. Now, in the morning of July 12th, in  
24 your testimony here, you testified that with regard to  
25 the Quadrex report, you attempted on that May 7th through

1 8, '81 period, to quote, "separate the drama of the words  
2 from the facts that prevailed," end quote. How was that  
3 task accomplished within the 24 hour period?

4 A Well, I think the principle mechanism by which  
5 that occurred was that each of the specific discipline  
6 findings was reviewed and the judgment was made on a case  
7 basis as to whether that in itself was reportable and the  
8 reasons for why that judgment was made. And once you  
9 start to understand how it was that that matter was not  
10 of the severity that one might have perceived just  
11 looking at words, it started to at least provide a broad  
12 indication of a number of observations.

13 One in particular was that there was a  
14 substantial number of discipline findings that pointed  
15 toward not whether or not a practice, in itself, was  
16 unacceptable, but a better practice, potentially, that  
17 one might have utilized to accomplish a specific task.

18 And that started to, of course, show that many  
19 of the conclusions might be viewed as subjective, that  
20 that's not the way I have seen it done or that's not the  
21 way I would have done it, as opposed to given the way it  
22 was being done. How do you know that it won't be  
23 acceptable.

24 And we felt that there were a lot of  
25 conclusions that fell into that category. There were a

1 number of observations that I wouldn't even want to  
2 characterize as findings in the real sense. And I don't  
3 want to demean the report, because there was a lot of  
4 good information in the document.

5           But there were suggestions that just didn't  
6 seem to fit with some of the purpose of the review. A  
7 finding that Brown & Root accepted the NRC regulations  
8 without question, or words to that effect. It didn't  
9 strike me that that was very useful. I didn't know what  
10 to make of that. It struck me that if Brown & Root was  
11 following NRC regulation that is we could be very  
12 thankful and it wasn't clear why. I would want to be  
13 particularly concerned if they were accepting them  
14 without question. It might point to the fact that maybe  
15 we were doing some things that if we had argued we  
16 wouldn't have to do and that could portend possibly a  
17 commercial opportunity but it wasn't clear to me that  
18 that was something to be concerned about.

19           I would just say that it takes a review beyond  
20 just being handed a very voluminous document which if you  
21 were to add up all the findings they were literally in  
22 the hundreds and, at first blush, that has a considerable  
23 impact, until you start to look at what are they, and  
24 what do they really represent.

25           And that is really, I think, the big difference

1 between the impressions you get when you first pick the  
2 document up versus an impression that you would receive  
3 after there was a considerable amount of review.

4 Q But after that first blush, that review was  
5 possible within the 24 hour period?

6 A Yes. The review started, as best I can recall,  
7 sometime around early afternoon on the 7th, the  
8 presentation by Quadrex was on the morning of the 7th,  
9 and I remember there was a lot of dialogue the other day  
10 about where the review took place.

11 And my testimony said the review was at HL&P  
12 offices and then I said, "Gee, I think they were in Brown  
13 & Root's offices because I know I didn't have them in my  
14 office."

15 I wanted to make it real convenient for Brown &  
16 Root. We'll, I'm afraid I was a bit provincial. My  
17 office at that time was located 26 miles south of  
18 Houston. And when I said that I wanted to have those at  
19 Brown & Root's offices, where it was more convenient, we  
20 did have it in an office that was more convenient; we had  
21 in it Houston Lighting & Power Company's downtown office,  
22 which was within a few miles of Brown & Root's office.

23 So I think my testimony as originally stated  
24 that this review was conducted at HL&P offices is  
25 academically correct. It was in the HL&P main office as

1 opposed to my office.

2 Q Turning your attention to the IRC members in  
3 1981, do you remember who the IRC members were at that  
4 point?

5 A Well, I had a little help from Mr. Sinkin  
6 earlier in the proceeding. I knew that Mr. Powell was  
7 the chairman; and while I don't have -- have this from  
8 personal recollection, I know that Mr. Overstreet was  
9 very likely the QA rep.

10 Q I don't mean to interrupt you, but I want to go  
11 through the -- I want to compare the qualifications of  
12 the members of the IRC in reviewing matters with regard  
13 to reportability under 50.55(e) to the NRC with you, Mr.  
14 Robertson and Dr. Sumpter. So it might be easiest to do  
15 these one by one.

16 How -- let me ask this question this way. With  
17 regard to each of the members of the IRC in experience in  
18 reporting 50.55(e) matters to the NRC, I'd like to  
19 compare your qualifications with each member of the IRC  
20 and do the same for Dr. Sumpter and Mr. Robertson.

21 A All right.

22 Q I don't think that's a compound question, but  
23 you've got the idea.

24 A If you're asking me to give you my perception  
25 or understanding of the differences in the levels of

1 experience between the three persons who conducted the  
2 reportability review for HL&P, who were not routinely IRC  
3 members versus the IRC membership, I believe the three  
4 IRC members were Mr. Powell and Mr. Blau, and Mr.  
5 Overstreet. And Mr. Powell, of course, was the chairman.

6 I think Mr. Powell had about five years  
7 experience. I don't remember precisely, but I seem to  
8 recall he may have had some experience in another nuclear  
9 operation.

10 Q How does this compare with yours? I'm sorry,  
11 had you finished? I didn't mean to --

12 A Well, I have to try to relate it to somebody.  
13 So if I were to to compare him to Jim Sumpter, or Dr.  
14 Sumpter, Dr. Sumpter -- well let's start over again.

15 I think Mr. Pool's basic educational training  
16 certainly below the level of a doctor of engineering; I  
17 don't honestly recall whether he has just a bachelor or  
18 he may have a masters.

19 Q I don't want to focus too much on, you know,  
20 degrees. I'm talking in terms of strictly experience in  
21 reportability of 50.55(e) and I'm not sure what sheep  
22 skin you would look for for that kind of experience. But  
23 if you would give us your --

24 A Dr. Sumpter had had some number of years  
25 experience working at Sargent & Lundy, before coming to

1 Houston Lighting & Power Company. He said he had been at  
2 Houston Lighting & Power Company for quite a few years in  
3 the role of the manager of nuclear services and  
4 licensing.

5 And Jim Sumpter was the most senior member of  
6 HL&P's nuclear engineering team prior to the arrival of  
7 myself and then subsequently Mr. Robertson.

8 So by definition, he had more working  
9 experience in the nuclear related areas than any other  
10 engineer that I'm aware of within HL&P. Mr. Robertson  
11 had approximately 20 plus years of experience in  
12 industry; he had a career, I think, having left the Army,  
13 starting at the power authority of the state of New York  
14 and then he'd gone on to Stone & Webster for a number of  
15 years as, among his other duties, a magazine manager of  
16 licensing with Stone & Webster, and he was hired in by  
17 Houston Lighting & Power Company in, I think it was April  
18 of 1981 as the new manager of licensing.

19 And we broke licensing away from the previous  
20 organization which was nuclear services and licensing, in  
21 order that the licensing activities of HL&P would receive  
22 a higher level of attention and that function reported  
23 directly to my office.

24 My career started in nuclear power in 1955. I  
25 arrived to HL&P in 1980. So, that would suggest some 25

1 years of experience when I started. As far as experience  
2 in direct related activities associated with reporting  
3 potential matters to the Nuclear Regulatory Commission,  
4 my career in commercial nuclear power started in 1971,  
5 and prior to that time, I spent some fifteen years in the  
6 naval nuclear propulsion program as a contractor with  
7 responsibility for making reports to the naval reactors  
8 branch on matters which by their rules required problem  
9 reporting.

10 Now, with respect to Mr. Blau's experience, Mr.  
11 Blau was not a nuclear engineer, he has a mechanical  
12 engineer; a very good mechanical engineer, I might add,  
13 and I think in terms of applied experience, that he was  
14 very capable gentlemen on engineering matters within his  
15 discipline. I think the subject of reportability, Mr.  
16 Blau probably only had the amount of experience for the  
17 amount of time that I was in that role which couldn't  
18 have been very long, I don't think he was associated with  
19 the project for more than four or five years and I doubt  
20 that he was that role for more than a couple. Order of  
21 magnitude; I don't have those precise numbers.

22 Mr. Overstreet was also of about the same  
23 amount of experience as Mr. Blau. I don't think he was a  
24 nuclear -- in fact, I don't think he was a nuclear  
25 engineer. I'm not sure what his specialty was; he was in

1 the Quality Assurance Department, he was basically a  
2 quality engineer.

3 Not to suggest that the IRC was inept, but when  
4 this Quadrex review report came in, it constituted a very  
5 comprehensive look at engineering practices. And the  
6 kind of expertise that was needed to be able to make an  
7 evaluation struck me as a team which had significant  
8 experience in engineering processes.

9 The role of quality assurance people, for  
10 example, in years gone by, in being in position to  
11 perform reviews of engineering practices was not as a  
12 department as it is today, and quite frankly, I didn't  
13 know how I could -- how far I could depend on an IRC  
14 review of something as complex as that report. And since  
15 I had commissioned the review, I felt that the most  
16 appropriate response to dealing with the potential issues  
17 was to put together the strongest and most experienced  
18 team we had available in our company.

19 Q And this is why you did not send it to the IRC  
20 for their judgment --

21 A That was the only reason it was not sent to the  
22 IRC.

23 Q Okay. Now turning your attention to the  
24 meeting you had with Mr. Sells at the I believe it was  
25 the May 14th, 15th, the meeting you had at the Holiday

1 Inn in Bay City when you first mentioned to them the fact  
2 that you had received the Quadrex report, do you recall  
3 that meeting?

4 A Certainly can recall -- can recall certain  
5 parts of it.

6 Q That was the Holiday Inn in Bay City?

7 A It was at the Holiday Inn. We had, as I  
8 recall, a couple of small conference rooms that were  
9 available for our preparations for the hearing and we  
10 were able to use one of the rooms that was not being  
11 occupied.

12 Q You've testified that at that meeting, you had  
13 at least volume one of the Quadrex report with you.  
14 That's --

15 MR. AXELRAD: Could you please point to Mr.  
16 Goldberg's testimony that you're referring to.

17 MR. PIRFO: Let me rephrase the question, then.

18 Q (By Mr. Pirfo) At that meeting, what part the  
19 Quadrex report did you have with you?

20 A My recollection was that I thought I had the  
21 whole report with me, plus some briefing notes that I  
22 think were on a clipboard. And I was really addressing  
23 my summation of the report from my notes on the  
24 clipboard.

25 And as best my memory serves me, I thought that

1 Mr. Sells asked if he could just take a look at something  
2 and it would have been volume one which was executive  
3 summary.

4 Q Right. Can you give me an idea in the form it  
5 was in at that time, how large volume one was?

6 A I think it was probably in the order of an inch  
7 and-a-half.

8 Q Volume one?

9 A I think so, an inch, inch and-a-half.

10 Q Do you have any recollection of Mr. Sells --  
11 what is your recollection of the amount of time Mr. Sells  
12 spent looking at that or if in fact he did at all?

13 A I don't think that occupied very much time. As  
14 a matter of fact, the connotation that I got was that Mr.  
15 Sells viewed that we had a lot of work to do.

16 Now, I know that I pointed out to him that the  
17 character of the report that I saw was that we had a  
18 tremendous amount of work that lie ahead. And if my  
19 memory is correct, and it may not be, but if it is  
20 correct, that might have just been born out of Mr. Sells  
21 just thumbing through that volume of the report.

22 If his recollection is correct, then I didn't  
23 have the report there, then it would have been born out  
24 of statements that I had made to him that we had a  
25 tremendous amount of work.

1 Q But you have no specific recollection of him  
2 looking through volume one or asking questions?

3 A Well, my recollection is that he perused the  
4 document, it was not extensively studied and in the  
5 course of that perusal, as my memory serves me, he got  
6 the impression that this looked like it was a tremendous  
7 volume of work.

8 Q He did not mention 50.55(e) reportability in  
9 that meeting at all?

10 A No, sir.

11 MR. PIRFO: May I have the Board's indulgence  
12 for a moment, please.

13 JUDGE BECHHOEFER: I was going to ask Mr.  
14 Goldberg, was the report of substantially the volume one  
15 about that size when you showed it to him?

16 THE WITNESS: It could have been. I don't  
17 think it was a bound copy from Quadrex. I think it was a  
18 reproduced copy that was probably in a hard -- in fact,  
19 I'm pretty sure it was in hard covers.

20 Q (By Mr. Pirfo) Your statement of CCANP Exhibit  
21 Number 87, you don't have that in front of you. I'll be  
22 happy to give this, states that in the second page, third  
23 full paragraph, that "On May 13, 1980" -- May I approach  
24 the witness? -- "I met with Don Sells a give an overview  
25 of the Quadrex report findings. At that time, I had

1 either one volume or all three volumes of the Quadrex  
2 report.\*

3 Is your recollection today any better than it  
4 was on that date, 1982, when you made that made that  
5 statement?

6 A No, sir.

7 MR. PIRFO: I have nothing further.

8 JUDGE BECHHOEFER: Dr. Lamb will go first.

9 JUDGE LAMB: Can Mr. Sinkin way on the left  
10 hear me if I speak at this volume?

11 MR. SINKIN: Excuse me?

12 MR. LAMB: I think that answered my question.

13 MR. SINKIN: Yes, I can hear you fine, Judge  
14 Lamb.

15 Q (By Judge Lamb) Mr. Goldberg, I have some  
16 questions to ask, and unfortunately, some of them sound  
17 familiar and will be, because I'm concerned, I want to  
18 make certain that the diffuse record that that we have  
19 over the past several days includes some answers to some  
20 questions that is we need answers to which are clear and  
21 unambiguous as possible. So that's what I'm trying to  
22 accomplish.

23 If you could, look at page 55 of your  
24 testimony, please. Lines 17 to 19, that sentence; it  
25 begins on line 17. You state in there that you did not

1 and do not view the Quadrex report as identifying  
2 weakness in QA. I just wanted to clarify. Did you mean  
3 by that that the report did not have as a goal the  
4 identification of QA problems or do you mean by that that  
5 you didn't see any QA problems as a result of the report?

6 A The report did not have as a goal to evaluate  
7 the Brown & Root engineering program in contrast to the  
8 licensing commitments on how that program was to be  
9 carried out. That was clearly not the goal.

10 To the extent that some matters turned out to  
11 be reportable because they constituted potential  
12 significant breakdowns in quality assurance, there's no  
13 question that some of that did turn up.

14 Q Thank you. Now, page 48, question and answer  
15 78, dealing with the question of submitting the entire  
16 Quadrex report to the staff under 50.55(e), which has  
17 been discussed quite a bit, to be a QA breakdown, can you  
18 give us any help on explaining to us what your view, in  
19 your view, would have been required in addition to what  
20 was in the Quadrex report to make that reportable or  
21 potentially reportable item, that is the entire report?

22 A If a number of the Brown & Root concerns of the  
23 Brown & Root that address such things that potential --  
24 the potential that Brown & Root did not have an adequate  
25 design control program, or Brown & Root had very

1 extensive mistakes in calculations in spite of the fact  
2 that it had a design control program, or if it had been  
3 demonstrated that Brown & Root did not have any machinery  
4 to ensure that system features were compatible with one  
5 another, system interaction, both within a system and  
6 then between systems, if those matters had been proven  
7 with fact, then that would have portrayed trade a design  
8 program that was so extensively flawed that there would  
9 be no potential way of knowing -- or there would be no  
10 clear way of knowing the extent of the problem, and that  
11 report would have had to have been turned in because the  
12 potential would be without limit, just to pick up the  
13 report and read the words, and not go any further, if you  
14 accepted all that to be true.

15           That's why on first reflection, I thought this  
16 looks like we've got a big problem. And had it not been  
17 for the fact that the substance of that report was  
18 reviewed very extensively by a lot of people and  
19 engineers who had nothing to gain by minimizing the  
20 importance of those problems, engineers who took no  
21 direction from me to talk them out of any of their  
22 conclusions, felt very strong that this report did not  
23 represent what first glance and first perceptions would  
24 suggest.

25           And I refer to the detailed review conducted by

1 Mr. Robertson, the detailed review conducted by Dr.  
2 Sumpter in company with virtually, I guess, the cream of  
3 the Brown & Root engineering team that worked all the  
4 afternoon of the 7th and late into the evening of the  
5 7th, and I of course didn't get their input until  
6 noontime on the 8th.

7 So I wasn't substituting my judgment and  
8 saying, "Hey, fellas, don't tell me it's reportable, it's  
9 not reportable." It was nothing like that.

10 If I had the benefit of no further intelligence  
11 than what I had when I was handed that report, if I had  
12 no feedback from any responsible person who participated  
13 in a detailed review, I'd have no choice but to turn that  
14 report in, because if I had nothing more than just the  
15 strength of what the report suggests was the case, it  
16 would be a matter that should have been turned in as a  
17 total report.

18 (No Hiatus.)  
19  
20  
21  
22  
23  
24  
25

1 Q Let's see, would it be necessary for the  
2 portions of the report indicating deficiencies to be  
3 individually reportable or potentially reportable?

4 A I want to make sure I followed your question.

5 MR. SINKIN: I'm sorry, Judge, I didn't  
6 understand the question.

7 Q (By Judge Lamb) What I'm wondering is there  
8 were three items that you ultimately decided were  
9 reportable or potentially reportable. In order for it  
10 to be reportable as a whole, would it have been  
11 necessary for a great number of items to be reportable  
12 or potentially reportable or would that decision to  
13 report it as a whole be made on some other basis?

14 If that isn't clear, let me try it again.

15 A No, I think that is clear, Dr. Lamb.

16 Well, I think it could have possibly gone  
17 either way. I think, for example, and I can't give you  
18 a precise number, but clearly if there had been on an  
19 individual basis, without regard to any synergy between  
20 issues, if there had been a very broad pattern of the  
21 type of problem that required reporting, I think that  
22 would give a person the feeling that the problem is  
23 extensive, that it's reaching out in lots of different  
24 areas and therefore it's very difficult to bound the  
25 problem. And I think that kind of an observation would

1 probably have suggested this report should be turned  
2 in. Or if the number of or limited number of  
3 observations projected a rather broad concern about the  
4 engineering practices that could reach into a lot of  
5 areas, then that might have constituted justification.

6 I don't think the number of the issues by  
7 themselves is the criteria. I think it's a combination  
8 of the significance of the issues. And conceivably if  
9 on an individual basis items may not be significant but  
10 there was enough of them to reach out into a broad area  
11 of the design activity, then that could create also this  
12 feeling that there seems to be a large unbounded concern  
13 about the design process.

14 So, I didn't have some magic number. I had a  
15 combination of the level of importance as well as the  
16 magnitude of the issues.

17 Q Am I correct in interpreting what you just  
18 told me as saying that it would have been possible that  
19 you could have decided to report that entire report even  
20 though there were no reportable elements within it  
21 individually?

22 A I don't think I went that far.

23 Q Okay.

24 A If I did, then I didn't convey my thought  
25 properly. I think what I was attempting to say is that

1 given a few far reaching concerns that would each in  
2 themselves be reportable, that that might have been  
3 enough to constitute turning in a whole report because a  
4 few far reaching concerns might suggest that we have an  
5 unbounded problem and therefore the number of  
6 observations found by Quadrex may or may not be  
7 representative of the magnitude of the problem. That  
8 might be one scenario.

9           The other scenario might be that there were a  
10 lot of individual reportable items that by themselves  
11 are not indicative of a pattern, but the sheer number  
12 might suggest that there are a lot of potential problems  
13 that may be out there if a lot of problems have been  
14 found and that might suggest the need to turn in the  
15 whole report because it suggests that there isn't a  
16 comfortable feeling as to the bounds that this may  
17 ultimately reach once further review might take place.

18           Q     Now, on page 14, question and answer 20.

19           A     Yes, sir.

20           Q     Is my recollection of your testimony correct  
21 that you did not initiate an investigation of  
22 reportability until you had received, that is on the  
23 initial Quadrex briefing, but only after the report had  
24 been submitted to you?

25           A     That is correct. The briefing referred to in

1 the answer to question 20 addresses the briefing that we  
2 received on April 13th. This was a slide show. There  
3 was no hard copy information that was handed out. And  
4 the Quadrex people were identifying these as some of the  
5 areas that they had made some observations and some of  
6 the things that they were working on in putting together  
7 the report. And I categorized those matters that I  
8 picked up during that session that might have, and that  
9 was an important qualification, that might have a  
10 possible character of reportability. We'd have to see  
11 what was in the report because that would include a lot  
12 more information than we were privileged to see just  
13 with the slide show.

14 Q Having had these items brought to your  
15 attention in a briefing before receiving the report,  
16 could you share with us your thinking on why you didn't  
17 report these to the IRC to begin the HL&P investigation  
18 ahead of the report?

19 A Well, we had commissioned Quadrex to perform a  
20 review and we hadn't gotten the benefit of all of  
21 Quadrex' input. And it only seemed counterproductive to  
22 send off another group of people on some form of a  
23 review of matters that we hadn't even received all the  
24 information on. It just did not make sense, at least I  
25 didn't think it made any sense, to conduct that kind of

1 an inquiry at a point where we hadn't really received  
2 all the information from the consultant.

3 Q Could we look at the next page, page 15,  
4 question and answer 21. Now, in reading that, I wonder  
5 with respect to your statement that the amount of time  
6 it takes a licensee to evaluate a concern before  
7 determining whether it should be reported is not  
8 specified, I wondered what prevents an Applicant from  
9 using that concept or that idea to avoid reporting  
10 things indefinitely? In other words, how much is  
11 enough? How do you determine how much is enough?

12 A Judge Lamb, the guidance that the regions  
13 provide licensees is that when you have sufficient  
14 information to undertake a review, that they think the  
15 review should not exceed fourteen days. And once you've  
16 completed that review, you have a window of twenty-four  
17 hours to make an appropriate report to the NRC regarding  
18 either potential or actual reportability.

19 Now, in the event that a licensee is in  
20 possession of information which after the fact someone  
21 makes a judgment, well, we think you had enough  
22 information to undertake a review or we think you had  
23 enough time to have completed a review and then  
24 undertaken the action to determine reportability, and if  
25 the matter ultimately becomes reported, once it's

1 reported, the NRC usually in the matter of its business,  
2 its inspection and enforcement branch will review the  
3 records of how long has the licensee had information.

4 I mean, these activities are not very secret.  
5 There are a lot of records that invariably accumulate  
6 regarding these matters. And if it's judged that we had  
7 an item for what is perceived as more than reasonable  
8 time to undertake a review or more than reasonable time  
9 to have completed the review and then undertaken action  
10 on reporting and we had not done so, then that's a  
11 notice of violation for failure to make an appropriate  
12 report.

13 So, there is a lot of enforcement action to  
14 discourage a licensee from, to use your example, taking  
15 an inordinate amount of time to go about the business of  
16 performing these evaluations. And I think we're very  
17 sensitive to that. I would frankly admit we're  
18 obviously more sensitive to it today than we might have  
19 been back in 1981 only because we have a much higher  
20 level of experience that is involved in this kind of  
21 activity on a day to day basis.

22 Q Now, you've indicated to us that you actively  
23 considered reporting the entire Quadrex report to the  
24 NRC within 58.55(e); is that correct?

25 A Yes, sir.

1 Q Did you discuss that possibility with or turn  
2 this possibility over for investigation to the IRC?

3 A No, not to the IRC. As I think I commented  
4 earlier, I know that I was faced with that deliberation  
5 and I can't help but think that I may have shared that  
6 with Mr. Robertson and maybe even with Dr. Sumpter, that  
7 on the strength of just the report itself, it struck me  
8 that this looked like a pretty awesome situation. And  
9 it was through the feedback of the subsequent reviews  
10 that took place that it was able to reduce my concern.  
11 I think my first concern was much more heightened than  
12 it was at the point in time that the reviews had been  
13 completed.

14 Q Now, under what category at first did you view  
15 this as being possibly reportable?

16 A As a significant breakdown in the quality of  
17 the engineering effort.

18 Q I'm eliminating a couple questions which  
19 you've already answered.

20 Did the NRC staff actively disagree with this  
21 as far as you know, with your decision on that?

22 Let me put it more accurately. Did they  
23 indicate to you that they disagreed with you?

24 A Well, the only conversations that we had that  
25 come to mind is there was, of course, the initial

1 dialogue with I&E Region 4 during the briefing where it  
2 wasn't a case of a disagreement, it was a case of asking  
3 the question had you considered reporting the entire  
4 affair under 50.55(e) and we had indicated yes. The  
5 best of my knowledge, no one at the Nuclear Regulatory  
6 Commission who became aware of the existence of the  
7 Quadrex report put it in the frame of reference we've  
8 read the report and we are absolutely certain it should  
9 have been reported under 50.55(e) and we perceive your  
10 failure to do so to be a violation and your continued,  
11 you know, position on that affair will just constitute a  
12 more severe violation. I mean, it was never ever put in  
13 any context of that caliber.

14 I mean, I don't know what perspective you were  
15 looking for, but I cannot recall any case where a  
16 Nuclear Regulatory Commission person came right out and  
17 said we think you're wrong. Now, I would put as a  
18 possible exception this Board and you tell me, we'll  
19 decide.

20 Q And if I understood your earlier testimony a  
21 few minutes ago, you indicated that in retrospect you  
22 would still make that same decision not to report?

23 A On the 50.55(e) --

24 Q Right.

25 A -- and I thought that was the context of the

1 question --

2 Q Right.

3 A -- and if I misunderstood that, I think the  
4 Board has ruled on the subject of McGuire. And while I  
5 might frankly admit I'm not clear that I understand why  
6 the ruling was that way, I'm obliged to honor that  
7 ruling. So, if I had to make the decision on turning it  
8 over to the Board, assuming that the Board would never  
9 change its ruling, I'd be foolhardy not to turn it over  
10 to the Board.

11 Q Are you the person who ultimately made the  
12 decision that the Quadrex report should not be reported  
13 under 50.55(e)? Was that basically your decision in the  
14 final analysis?

15 A Well, I guess -- I'd like to answer the  
16 question this way: If I hadn't had the benefit of the  
17 feedback that resulted from the review that was  
18 conducted by Brown & Root and the input from the two  
19 most experienced engineers working for me, and if I had  
20 no input, I would have turned that report over because I  
21 would have no way of bounding the problem.

22 So, I wouldn't want to characterize that it  
23 was an ultimate decision. It was a decision reached by  
24 all the members who made the review. And had there been  
25 anyone who said that I think failure to turn this report

1 over as a total entity will constitute a violation of  
2 our obligations under 50.55(e), then I can assure you  
3 the decision would have come out a lot different. So, I  
4 don't feel that it was an ultimate decision on my part.  
5 I think it was a decision of three senior engineers who  
6 all ultimately came to the same mind. And if there was  
7 anybody who was the last to get aboard the train, it was  
8 probably myself.

9 Q So, it was a consensus view of the three of  
10 you who reviewed it, at least?

11 A Yes, sir.

12 Q Now, did you in 1981, that is in the period  
13 we're concerned with, did you actively consider  
14 reporting the Quadrex report to the Board under the  
15 McGuire Rule or some such rule?

16 A I was certainly conversant with rulings that  
17 had been made in at least one other proceeding involving  
18 the North Anna Project where I believe the Board ruled  
19 that a certain matter regarding earthquake fault should  
20 have been brought to the Board's attention and  
21 apparently it was not. And there was a considerable  
22 amount of dialogue in various media publications or  
23 various industry publications that pointed out the fact  
24 that boards must be kept informed of matters that are  
25 pending before the Board.

1           So, to the extent that I was sensitive to the  
2 fact that the Board was in session or shortly to be in  
3 session and that there was an itinerary of issues that  
4 were going to be discussed by the Board, I had to ask  
5 myself is there anything in this report that is matters  
6 pending before the Board.

7           And to the best of my knowledge, and I must  
8 confess I'm still not any smarter today in spite of the  
9 ruling of this Board, I didn't see how a review of the  
10 Brown & Root engineering program fit in with the Board's  
11 review of the matters that were pending before it at  
12 that point in time, which struck me as being preoccupied  
13 with the amount of attention that quality assurance  
14 people were paying to construction -- I'm not even sure  
15 it was that. It was concerns about construction  
16 quality. There were concerns about relationships  
17 between construction personnel and quality control  
18 personnel. There was concerns about whether or not  
19 Houston Lighting & Power Company had left too much to  
20 Brown & Root.

21           And while that issue might well have been true  
22 on construction's side, I couldn't see that on the  
23 engineering side. Houston Lighting & Power Company had  
24 the largest engineering project team I had ever  
25 encountered in my career. They had more engineers

1     trying to make sure that engineering work was going to  
2     get done than what I believe most projects have been  
3     privileged to have.

4             So, I didn't see any pattern of neglect by  
5     Houston Lighting & Power Company. The problems I saw  
6     were not of a character that seemed to be pending before  
7     this Board.

8             Q     Did you consider as part of your deliberations  
9     on that the possibility that problems reported to you by  
10    Quadrex might bear on the competence of HL&P with  
11    respect to controlling the design of STP?

12            A     Well, there was always that possibility, Judge  
13    Lamb. But, you know, at the time that I had received  
14    the Quadrex report, I had a pretty good feeling for what  
15    level of competence HL&P had. Now, I'd be the first to  
16    tell you that Houston Lighting & Power Company could not  
17    engineer or design a nuclear power plant. I think if  
18    they had that capability, they clearly would have  
19    undertaken to do that and perhaps not hired Brown &  
20    Root. But I felt that they had the resources in place  
21    of sufficient caliber to know what kind of processes and  
22    programs were useful.

23            I just didn't see a character and competence  
24    problem in the engineering side of the house. And I'm  
25    not commenting on the construction side. I really

1 didn't have much to say about that. It was a fait  
2 accompli when I joined the company as to what the issues  
3 were. But I didn't perceive that.

4 Q Let me perhaps clarify a little bit the point  
5 that I'm trying to get at and that is the question of  
6 whether you considered that one of the issues that the  
7 Board was faced with, aside from the goal of trying to  
8 resolve, had to do with the character and competence of  
9 HL&P and to the degree that the Quadrex report would  
10 indicate defects in the engineering by B&R which in turn  
11 is under the control of the licensee. I wondered  
12 whether you viewed that or considered that as part of  
13 your decision process?

14 A Well, I think that that is inherent.  
15 Certainly if Brown & Root had had a program that was  
16 substantially removed from the quality requirements that  
17 we were committed to follow, that that could well shed  
18 in an uncomplimentary way on the efforts of Houston  
19 Lighting & Power Company. I believe if one were the  
20 case, the other might very well be the case.

21 Q Did you consider that at the time when you  
22 were deciding whether or not the report should be  
23 submitted to the Board?

24 A Yes, I think -- I don't know that I put it in  
25 exactly those terms. I'm not sure whether I put it in

1 precisely those terms.

2 Q Is that too a question that you discussed with  
3 others, Dr. Sumpter, Mr. Robertson or others  
4 specifically, that is -- or with the attorneys reporting  
5 this possibility or need for reporting this to the  
6 Board?

7 A Well, I did not discuss that with our  
8 attorneys and I can't honestly say whether I had  
9 discussed that with either Dr. Sumpter or Mr.  
10 Robertson. I may have, but I don't know that for  
11 certain. I know that I did ask myself what do we have  
12 here and is this something that we're going to, when I  
13 say we, I'm speaking for myself representing HL&P, share  
14 with the Licensing Board. And, as I say, I can't say  
15 with confidence whether I may have discussed it with  
16 either Dr. Sumpter or Mr. Robertson.

17 Q I gather from your earlier comments that your  
18 personal thinking about that is still in the same vein,  
19 that that would not be something that you would view as  
20 being reportable now?

21 MR. AXELRAD: I'm sorry, Dr. Lamb, are you  
22 talking about reportable or to be provided to the  
23 Licensing Board?

24 JUDGE LAMB: To be provided to the Board, yes,  
25 reportable to the Board.

1           Q     (By Judge Lamb) I'm not asking for a current  
2 reflection of what you would do today in view of the  
3 Board's comments on that. What I'm asking is from the  
4 point of view of -- well, your feeling about the types  
5 of things that normally you would, in fact, turn over to  
6 the Board or inform the Board.

7           A     Well, my understanding of the Board's area of  
8 interest at the time seemed to focus on construction  
9 quality, the quality control relationship to  
10 construction, the adequacy of the construction quality  
11 assurance program, selected questions on more  
12 specifically voids in concrete, welding, backfill.

13                     I went through a review of what my  
14 understanding of the Board's interest was at the time.  
15 I didn't have anything trigger in my mind that what we  
16 had in the way of this report seemed to match up with  
17 what I understood the Board's area of interest to be.  
18 Clearly that judgment could be in error. But that was  
19 the judgment that was made and it was based on my  
20 understanding of what I thought the interests of the  
21 Board were.

22           Q     Now, were you also the responsible person who  
23 actually made the decision that the report should not be  
24 turned over to the NRC, not as part of 50.55(e), but --  
25 well, on any basis, for information or for any other

1 reason?

2           A     I guess I had certainly a role to play. I'm  
3 reasonably confident that I may have made inquiries  
4 about has it been the practice of HL&P to provide  
5 consultant reports to the Nuclear Regulatory  
6 Commission. I know it's not a common practice in all  
7 the other projects that I have worked on, so therefore I  
8 had no precedent in my experience that this is something  
9 that one routinely does. I had no reason to believe  
10 that this was something that HL&P routinely did. And  
11 since consultant reports are just extensions of the day  
12 to day business of the licensee of using his own  
13 resources and that of outsiders to understand perhaps  
14 the character or the level of activity associated with  
15 the project, I saw no special reason why this report  
16 should be shared with the Nuclear Regulatory Commission  
17 in that it is not the common practice of either HL&P or  
18 the industry.

19           Q     Are you the person who made that decision for  
20 HL&P or was it Mr. Oprea or Mr. Jordan?

21           A     No, I believe that that decision would  
22 probably more properly rest with my office. I was in  
23 charge of the engineering for Houston Lighting & Power  
24 and I didn't seek advice of either Mr. Jordan or Mr.  
25 Oprea regarding that decision.

1 Q I think you've explained earlier some of your  
2 rationale behind that decision, I think, in your  
3 testimony, haven't you?

4 A I believe we touched on that point, yes, sir.

5 Q Could you look at page 55 of your testimony,  
6 please, the first four lines.

7 Did you in receiving this advice from HL&P  
8 counsel receive the impression that this was something  
9 which the NRC staff was essentially requiring HL&P to  
10 do? What I'm looking for, did you have the feeling that  
11 the company was under pressure to do this?

12 A If my memory serves me, Dr. Lamb, I received a  
13 call from Mr. Newman who had apparently had  
14 conversations with Mr. Reis and Mr. Reis had seen the  
15 report and felt that this was a matter that should be  
16 brought to the attention of the Board. And he mentioned  
17 that to Mr. Newman and Mr. Newman counseled with myself  
18 and there was no deliberation. If this was viewed as  
19 something that might be of interest to the Board, a copy  
20 was furnished to the Board through Mr. Newman's office.

21 Q At some point in the testimony it seems to me  
22 that someone had indicated or -- well, indicated, I  
23 guess, that Mr. Reis had told Mr. Newman that if you  
24 folks didn't send it, he would. Did you pick up  
25 anything of this type?

1           A     I got the understanding that Mr. Reis was  
2 making it abundantly clear that he thought this matter  
3 needed to be brought to the attention of the Board.

4           Q     I see.

5           A     And I presume that had we not undertaken to  
6 share the report with the Board, that he undoubtedly  
7 would.

8           Q     So, you didn't get the impression this was  
9 just idle low-level advice?

10           MR. SINKIN: I'm sorry. I didn't hear that.

11           JUDGE LAMB: That this was idle low-level  
12 advice.

13           A     Well, it was clearly high-level and I don't  
14 think there's --

15           Q     (By Judge Lamb) Strong.

16           A     -- any doubt that Mr. Reis was very definitely  
17 of that opinion.

18           Q     Now, in your 1981 testimony before the Board,  
19 did you make any conscious effort to avoid raising the  
20 issue of the Quadrex report?

21           A     No, sir. To the best of my --

22           Q     Did anybody advise you to do that?

23           A     No, sir, not at all.

24           Q     Did you advise anyone else to do that?

25           A     No, sir.

1 Q Or, for that matter, not just before this  
2 Board, but in general. I mean, in other situations,  
3 meetings or anywhere was this topic discussed?

4 A No, sir. As a matter of fact, I think it's  
5 important to note that -- there was a question earlier  
6 by I think possibly Mr. Sinkin, I'm sure it was Mr.  
7 Sinkin, that he wanted to know who all got the report.  
8 Our partners had that report and were very knowledgeable  
9 about Quadrex because they had been briefed about  
10 Quadrex. One of our partners is the City of Austin.  
11 The City of Austin is a public entity.

12 I frankly have no idea of how many people in  
13 Austin knew about Quadrex, but I have every reason to  
14 believe it was not confined to the persons that we  
15 shared that information with because that's generally  
16 not the way business is conducted in Austin. The fact  
17 that Mr. Sinkin didn't know it existed strikes me as  
18 rather strange. I think at the hearing a newspaperman  
19 came up to me during one of the breaks and he asked a  
20 question about the Quadrex report, he wanted to know  
21 what it was and I told him.

22 So, I don't think Quadrex in itself was the  
23 mystery that some people would lead the Board to  
24 believe.

25 JUDGE BECHHOEPER: Was this the hearings in

1 the summer of '81 that you're referring to now?

2 THE WITNESS: Yes, sir.

3 Q (By Judge Lamb) In other words, to paraphrase  
4 what you're saying, neither you nor anyone else as far  
5 as you knew attempted to retain the report as  
6 confidential or secret or in any such classification?

7 A No, sir.

8 MR. SINKIN: Excuse me, Judge Lamb, I hate to  
9 interrupt at this point.

10 What was the date you said, Mr. Chairman?

11 JUDGE BECHHOEFER: I said during the spring or  
12 summer of '81.

13 MR. SINKIN: Spring or summer of '81.

14 JUDGE BECHHOEFER: Rather than maybe a newsman  
15 approached you in '82 or later, I just wondered --

16 THE WITNESS: No, sir, I believe it was -- I  
17 think it was the same week that I had briefed Mr.  
18 Sells. I can't tell you what day. I haven't the  
19 foggiest idea. But a gentleman, who I don't know his  
20 name but I'd recognize him if I saw him again, came up  
21 to me and said something about that he was with a  
22 newspaper and he made -- just a question, he said I  
23 understand you people have a consultant report called  
24 the Quadrex report and I said that's right. And he said  
25 when is it going to be issued and I said it has been

1 issued.

2 Q (By Judge Lamb) To what degree was Mr. Oprea  
3 involved in the decision not to report the Quadrex  
4 report to the NRC under 50.55(e), or was he involved?

5 A I don't believe Mr. Oprea was involved in any  
6 matters on reportability. I informed him of what  
7 matters were reported. He was informed, he was not  
8 consulted.

9 Q And how about with respect to the question of  
10 submitting the report to the NRC on any other basis, for  
11 informational purposes?

12 A The only time that I believe Mr. Oprea and I  
13 had any dialogue on that matter was at the time that we  
14 visited the Region 4 offices. And we had briefed Region  
15 4 and Region 4 had asked the question had you considered  
16 turning in the entire report under a 50.55(e) and I  
17 indicated that we had at the time.

18 And then I seem to recall that after the  
19 meeting I asked Mr. Oprea did he see any reason why that  
20 needed to be turned over to the NRC based on any  
21 comments that he had heard at that meeting that we had  
22 with Region 4. And my -- well, my recollection is that  
23 he did not, but I wanted to just benchmark his point of  
24 view after that particular meeting with Region 4.

25 Q He didn't make the decision, though. I think

1 you've indicated earlier that you made those decisions;  
2 is that correct?

3 A That is correct. I kept him informed of what  
4 we were doing, but I did not, you know, seek his advice  
5 on the decision itself.

6 Q Did he influence the decision at all?

7 A Not in this particular matter, no. But  
8 certainly from time to time if Mr. Oprea had something  
9 that he needed to bring to my attention that might  
10 influence my activities, he did.

11 Q Did he participate in the decision or  
12 discussions relative to whether the report should be  
13 submitted to this Board before it was?

14 A No, sir, not to my knowledge. There was no  
15 discussion certainly by myself and I have no reason to  
16 know of any other discussions.

17 Q It just wasn't discussed with him at all?

18 A No, sir.

19 Q On to an even more general area, let me just  
20 ask you one more question.

21 Is there anything else that we haven't asked  
22 you which you would like to say which would be helpful  
23 to this Board in understanding the rationale and the  
24 thought processes and factors which entered into these  
25 decisions about reporting these different documents to

1 the Board or to the NRC? In other words, have we missed  
2 any bases?

3 A I don't think you've missed any bases. This  
4 will give me an opportunity to at least share with the  
5 Board that certainly the matter of reportability is a  
6 matter that is very difficult to deal with in an  
7 abstract sense.

8 The tests for reportability as prescribed in  
9 the regulations are clear, but the application of those  
10 tests require more than just an academic understanding  
11 of the words. There is a measure of experience which  
12 comes from working with the regulation and I believe  
13 that we applied the regulation as rigorously as we  
14 knew. I don't think there was any -- at any time any  
15 feeling that we had any priority except to make an  
16 honest evaluation. There was no attempt to withhold  
17 information for fear of what it might be construed where  
18 we were convinced the information needed to be shared.  
19 But, quite frankly, we saw no useful purpose to be  
20 served in loading up the Nuclear Regulatory Commission  
21 with a lot of unsubstantiated questions which it's our  
22 responsibility to address. And if we see either then or  
23 now the potential for reportability, those matters are  
24 reported.

25 There were three senior engineers involved in

1 the decision. There were no dissenting votes on any of  
2 the decisions. It was truly a consensus of the most  
3 experienced body of talent that we had available in our  
4 company at that point in time.

5 I've been in this business most of my life. I  
6 try to do the job to the best of my ability. I can  
7 recall of no decision that I have made in that history  
8 that I'm ashamed of and I do not have any concern that  
9 the decisions I made in this case were made for reasons  
10 other than a potential error in judgment. If I have  
11 erred, then I am sure my peers will point out those  
12 errors.

13 I think, in retrospect, the subsequent reviews  
14 of Quadrex that have been performed by not just Brown &  
15 Root, but Bechtel and two different engineers from the  
16 Nuclear Regulatory Commission, have tended to put in a  
17 very similar perspective where we came out in our  
18 evaluation. And it just strikes me that while our  
19 evaluation may not be perfect, it is in the proper  
20 ballpark, as has been demonstrated by these other  
21 reviews. I don't think we were out in left field.

22 Now, in terms of turning the report over to  
23 the Board, that's a separate question and you gentlemen  
24 will make those judgments, as you have.

25 Q Thank you.

1 JUDGE LAMB: That's all for me.

2 JUDGE SHON: Well, I think you've pretty much  
3 covered many of the things I've thought about.

4 I have something that's really not in the  
5 nature of a question for Mr. Goldberg, but something  
6 that I would like to throw out for the parties'  
7 consideration.

8 As we've gone through this thing, I've found  
9 it a little difficult to follow just what happened  
10 when. Is there any chance that the parties, all three,  
11 could reach a general stipulation of a fairly detailed  
12 chronology that would fix in time each of the meetings,  
13 each of the consultations, each of the decisions, the  
14 decision to have the Quadrex report, the decision to  
15 hire Quadrex, the decision to search for other options  
16 than Brown & Root, the decision finally to eliminate  
17 Brown & Root, send out the RFP's, each of these things  
18 and put them all down in a line that everyone could  
19 agree really reflects their order in time? Can this be  
20 arranged do you think?

21 MR. PIRFO: The Staff would certainly endeavor  
22 to do so.

23 MR. AXELRAD: I believe we can do so. I don't  
24 know --

25 MR. SINKIN: I think it would be very useful

1 to everybody.

2 JUDGE SHON: I think it would certainly be  
3 useful.

4 MR. SINKIN: I'm not sure we could do it in a  
5 very short time.

6 JUDGE SHON: I haven't set any time limit on  
7 it.

8 MR. SINKIN: Okay.

9 JUDGE SHON: It would be the earlier the  
10 better because the more witnesses we hear with this in  
11 view, I think the more sense we'll be able to make out  
12 of --

13 MR. AXELRAD: We might be able to do it over  
14 the recess when the hearings reconvene the next week.

15 MR. PIRPO: To the extent I said the Staff  
16 will endeavor to do so, I meant in the event the parties  
17 would reach an agreement. The Staff would not attempt  
18 to provide --

19 MR. AXELRAD: We all heard he was  
20 volunteering.

21 MR. PIRPO: Well, I just thought I'd clear it  
22 up.

23 JUDGE BECHHOEFER: We support that.

24 I assume you do?

25 JUDGE LAMB: Sure do. That would be very

1 helpful.

2 JUDGE SHON: I have no questions for Mr.  
3 Goldberg.

4 JUDGE BECHHOEFER: Okay.

5 MR. AXELRAD: Mr. Chairman, before we start  
6 again, could we take a short break perhaps?

7 JUDGE BECHHOEFER: Sure.

8 (Recess.)  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1           Q     (By Judge Bechhoefer) Mr. Goldberg, I would  
2 like to discuss with you a little bit about the criteria  
3 for potentially reportable items. And what I'd like to  
4 do is how in your procedures, both today -- and maybe Mr.  
5 Wisenburg will have to handle that -- but both today and  
6 back in May of '81, how the procedures, themselves,  
7 reflect the 14 day period which you refer to or whether  
8 they reflect the 14 day period which the INE has put out  
9 for guidance.

10           A     The 14 days discussed by INE is a guidance type  
11 of number. The way our program operates, and Mr.  
12 Wisenburg is going to testify to our current program, but  
13 in essence, once a matter is brought to the attention of  
14 engineering, it can come from any source in the company  
15 that becomes aware of matters that they think might well  
16 have that potential. And they're encouraged to bring it  
17 to the attention of the engineering manager.

18                     And that kicks off the start of a technical  
19 review of the material. And our guidance is that you  
20 shall take not more than 14 days, because that's the best  
21 guidance we have.

22                     And then at that point, it has to either go to  
23 the IRC or the engineering folks have made a  
24 determination it doesn't even have enough substance to be  
25 considered by the IRC.

1           Once it goes to the IRC, the IRC has 24 hours  
2 to make reportability determination, based on input from  
3 engineering. All engineering is really doing is  
4 investigating; they're not making a determination of  
5 reportability per se, they're conducting a review of the  
6 facts.

7           And if they don't even find, at the end of that  
8 point in time, enough information to constitute  
9 sufficient data to warrant an IRC evaluation, it ends  
10 there, except the IRC is made aware that this has  
11 transpired and the IRC is still at liberty to undertake  
12 the review should it disagree with engineering.

13           So the point is that the general guidance is  
14 you shouldn't take more than 14 days to decide whether or  
15 not this matter should be considered for reportability,  
16 and then once you have sufficient information to make a  
17 judgment, you have 24 hours to make that judgment.

18           Q    Well, now in interpreting what happens in the  
19 14 days, assuming at the beginning of the 14 days you  
20 don't have enough information to make the decision, and  
21 assuming that at the end of the 14 days you still don't  
22 have enough information, would that under the guidance,  
23 at least, nonetheless become reportable as a -- at least  
24 as a potentially reportable item pending development of  
25 all the informatino necessary?

1           A     At that point, it should go to the IRC; if  
2 engineering, after 14 days, for example, hasn't been able  
3 to establish the character of the problem, it should go  
4 to the IRC, nevertheless. And the IRC is at liberty to  
5 review the information and within 24 hours, make the  
6 report if they judge it to have the potential or, not  
7 make it if they judge it not to have it.

8           Q     Now, on page 36 of your testimony, starting at  
9 line eleven, if -- in that sentence set forth there, do  
10 you equate the word "promptly" on line 12 with say "14  
11 days"? Is that what that sentence is intended to state  
12 in effect?

13          A     Just let me read the context of the statement.

14          Q     Right, the sentence beginning on line eleven.

15          A     Yes, I see that. In the context of starting at  
16 line eleven.

17          Q     Right. It runs to about line 16.

18          A     Where we have a deficiency, we know we have a  
19 deficiency, and we're not yet able to make the  
20 determination of whether it would have an adverse impact  
21 on the safe operation of the plant and clearly that  
22 potential exists, then that would well be turned in as a  
23 potential reportable item.

24          Q     So that sentence then reflects a situation  
25 where, presumably what's what's contemplated within the

1 14 day period, would already have happened; in other  
2 words, a deficiency was determined?

3 A The matter -- just to use the system, a matter  
4 is brought to engineering; and engineering evaluates it  
5 and says, "This looks like a deficiency," and turns it  
6 over to the IRC, and the IRC makes all the necessary  
7 formal tests for reportability, and they would have, at  
8 that point, in their mind, that we have a deficiency, it  
9 does have an impact of some sort but yet to be  
10 determined, happens to be in a safety related portion of  
11 the plant so it's perceived as could well have an impact  
12 if a final evaluation might show that, and within 24  
13 hours, they would undoubtedly call that in as a  
14 potential, because it has enough ingredients that it  
15 might well become reportable.

16 The guidance that we give to our personnel to  
17 help them to understand the threshold for potential  
18 reportability is this understanding, and it really goes  
19 back I think to a question raised by Judge Lamb, if we  
20 don't turn in as a potential report a matter that is  
21 later determined to be reportable, and review by the  
22 Nuclear Regulatory Commission, discloses that we had had  
23 information about that matter and not undertaken to call  
24 it in as a potential reportable, then that's a violation.

25 So the threshold has to be set low enough that

1 we are at least calling in potentials where later it  
2 turns out to be real and it can be demonstrated that we  
3 reacted in a timely way to the information to at least  
4 call in it as a potential.

5 Q Just perhaps to track this process on one of  
6 the findings, turn to Page 42 of your testimony, the  
7 portion dealing with finding 4.6.2.1(n).

8 Q Now, the staff, I should say Mr. Taylor from  
9 the staff, in his testimony which is to be submitted and  
10 it's actually on page 44 of his testimony, has stated  
11 that he, at least, would have regarded this matter as an  
12 unresolved item.

13 Now, in your procedures, how could or did the  
14 handling of 4.6.2.1(n), how did that -- how was that  
15 determined not to be at least unresolved --

16 A Well, Mr. Chairman --

17 Q -- at the time you considered this, which was,  
18 I guess, May of '81?

19 A Mr. Chairman, I would have to say that in a  
20 sense, while we didn't call it out in that category, it  
21 represented an unresolved matter to a degree for us as  
22 well.

23 The problem, as I understand it, stemmed from  
24 the fact that Quadrex wasn't satisfied that all the  
25 conditions required for analysis had been performed.

1 There was information that that analysis had been  
2 performed; I don't think they were able in the time that  
3 Quadrex was visiting the question, to find the analysis.

4 So in a sense, it is an unresolved question,  
5 because people have to find the analysis. It turns out  
6 that while that was one question, the fact that the  
7 re-analysis was in progress nevertheless; but we had  
8 information that told us that that analysis had been  
9 done.

10 It was just difficulty in finding the  
11 information, the information that Quadrex was looking  
12 for. And it turned out that if the information was never  
13 found, and it was important that you have that  
14 information to be able to demonstrate that you had an  
15 adequate system, you would undoubtedly have to perform a  
16 re-analysis; and there was one in progress, and if the  
17 loss of calculations was systemic and we were missing  
18 many of the important calculations to support the design,  
19 then that in itself might constitute a significant  
20 breakdown in quality.

21 So in practice, that was an item that is still  
22 open on the books.

23 Q Well, what I was trying to figure out is how  
24 does the 14 day period, time period, apply to that type  
25 of situation, where you are apparently seeking to find

1 further information, you haven't got it yet.

2 A We compressed, for purposes of reportability,  
3 our window of time, from when we received the report on  
4 May the 7th, the clock started such that by the end of  
5 business on May the 8th, we had to have a decision on  
6 reportability. I wasn't counting on 14 days. My  
7 personal perception was that once we had that report, we  
8 had information that had to be acted upon. And I  
9 insisted on timeliness in trying to make these  
10 assessments.

11 I might have said let's take 14 days. I wanted  
12 an assessment in 24 hours.

13 Q Well, 24 hours later, when this matter still  
14 apparently was not an unresolved item, why didn't your  
15 company or you consider that to be potentially  
16 reportable, either at that time or at least after, if you  
17 hadn't gotten the further information in 14 days, from  
18 then, say?

19 A As far as I was concerned, Mr. Chairman, the  
20 only problem that we had was that they hadn't put their  
21 hands on the calculation. There was no question in the  
22 minds of Brown & Root and my people that the analysis had  
23 been performed. It was performed prior to the filing of  
24 the appropriate section in the final safety analysis  
25 report, that clearly stated that that condition had been

1 analyzed.

2 Q Do you essentially -- I guess, you must  
3 disagree with Mr. Taylor's conclusion which I guess --  
4 which is on the next page, page 45.

5 A I'm not sure I disagreed with his position.

6 Q Well, answer 134.

7 A Well, I guess this is one of those classic  
8 judgments where my threshold was not quite as low as Mr.  
9 Taylor's.

10 Q Do you think that the HL&P review here or the  
11 current system is sufficient, the threshold is  
12 sufficiently low, so that you will pick up at least  
13 significant -- well, the large majority, shall we say, of  
14 items of this sort?

15 A I believe our threshold is very low, Mr.  
16 Chairman. That isn't to say that on a case basis, that  
17 there may not be a disagreement.

18 In other words, in spite of my perception that  
19 we have a very low threshold and I believe that the  
20 appropriate questions to the NRC staff will identify  
21 whether they share that view, but I believe we have a  
22 very low threshold and that isn't to say, however, that  
23 there wouldn't be specific occasions where the NRC and my  
24 staff might come to a disagreement on a particular item.

25 And I think that lends itself to the fact that

1 there is a considerable amount of judgment that does get  
2 applied and not everyone always agrees on every point.

3 But I don't think there's a question,  
4 philosophically about where to set the threshold. We set  
5 it very low; I venture to say we set it lower than many  
6 people in the industry.

7 I have a feeling that we are extremely  
8 conservative in what matters do get reported. I think  
9 the staff is a better judge perhaps of how we stack up to  
10 the rest of the industry since they are in a position to  
11 make that compare.

12 But from my understanding of the way my  
13 colleagues think about these matters, I'm persuaded that  
14 HL&P has got a very low threshold.

15 Q Now, illustrating that threshold again, do you  
16 consider that at the April -- April 13 briefing, which  
17 you discussed, that none of the items there presented you  
18 at that time with enough information to at least trigger  
19 the process by which you would consider whether an item  
20 was reportable? Is that your opinion?

21 A I would --

22 Q You were mentioning the slide show and nothing  
23 in writing. But was there enough information on the  
24 slides for any of those items that you might have  
25 triggered the reportability process at that point?

1           A     I don't think so. Didn't think so then and I  
2 still don't have a basis to think so. The presentation  
3 by Quadrex was characterized as preliminary, that there  
4 was still information that were working on; there was  
5 still some interface going on with Brown & Root; and  
6 there are many instances in the day-to-day design of a  
7 project where information will come to somebody's  
8 attention that in the absence of any confirmation, in the  
9 absence of any probing, would leave you with an  
10 uncomfortable feeling.

11                     But that's what precipitated the further  
12 follow-up and the further probing. That's why there is  
13 this 14 day recommended evaluation window, to give people  
14 an opportunity to try to understand the character of the  
15 problem. And that starts when they think they have  
16 enough information to even concern themselves that they  
17 may have a problem.

18           Q     Did that April 13 meeting give you enough  
19 information on any item to trigger the 14 day period --

20           A     I don't believe --

21           Q     -- in retrospect now?

22           A     I really don't believe so, because the  
23 presentation was represented as, "Well, here's where we  
24 are in the development of our information," with many  
25 caveats of "This is preliminary and we're still working

1 on this."

2 And that's not to say that there was anything  
3 defective in the Quadrex effort, but they really didn't  
4 have very much of a complete picture. And they  
5 characterized that this was very preliminary. And the  
6 only reason for the review was that they had been working  
7 on it since January and hear we were in April and I was  
8 very interested in "Where are you fellas?"

9 I know that some consultants will take as much  
10 time, perhaps, as people are willing to give them. I was  
11 very anxious to try to get an understanding as to where  
12 the engineering program was, and I didn't understand why  
13 it was taking quite so long to tell me.

14 So this was an interim report, almost caused by  
15 my insistence to understand "Well, what's happening?"  
16 And it wasn't a complete story by a wide margin, and  
17 there was a considerable number of caveats introduced  
18 throughout the presentation.

19 So I came away with a feeling like I was almost  
20 sorry I asked for the review, because I didn't get  
21 anything that I felt was really of a firm character.

22 Q Would that general answer apply to such matters  
23 as the HVAC matter or the computer code verification  
24 matter, matters that were actually reported, but somewhat  
25 more than 14 days after April 13?

1           A     Well, in the case of the HVAC, I guess the  
2 record will show that there was apparently some concern  
3 that HL&P had about HVAC, that dated back I think as far  
4 as back as a year before, roughly; about April of 1980,  
5 if my memory serves me correctly.

6                     And we were ultimately held to be in violation  
7 of timely reporting because it was judged, and this is an  
8 interesting illustration of the test that I was trying to  
9 make earlier, that once an item comes to the attention of  
10 the NRC and they look back on "When did you have  
11 sufficient information to at least acknowledge it as a  
12 potentially reportable item," and they see vast expanse  
13 of time, then you are held in violation of the rule.

14                    At the time the Quadrex was reviewing HVAC, I  
15 had no knowledge of any prior HL&P understanding that  
16 this might be a problem to the degree that there was even  
17 someone who had taken the time to write Brown & Root a  
18 memorandum and explain where they thought that that  
19 design might be defective.

20                    I mean, that was information that I had no  
21 knowledge of. So the record will show that that was  
22 clearly a late report. But it didn't stem from the April  
23 13th meeting of 1981; that went all the way back to  
24 approximately a year before.

25                    JUDGE BECHHOEFER: It's getting close to 6:00

1 o'clock. I guess I'll go through one more item that I  
2 have.

3 Q (By Judge Bechhoefer) Just to conclude the  
4 portion on potentially reportable findings, how would you  
5 apply your general philosophy which you've described to  
6 the quote "potential problem findings" of the Quadrex  
7 report, which didn't identify deficiencies as such but  
8 raised probabilities or raised information that might  
9 lead to that? How did you -- how did you handle the  
10 potential problem findings.

11 MR. AXELRAD: Mr. Chairman, are you referring  
12 to the category within Quadrex that was defined potential  
13 problem finding?

14 JUDGE BECHHOEFER: Yes.

15 MR. AXELRAD: I don't know if the witness has  
16 that particular definition before him.

17 JUDGE BECHHOEFER: As referred to on page 29 of  
18 Mr. Goldberg's testimony.

19 MR. AXELRAD: It's referred to on page 29 of  
20 your testimony, Mr. Goldberg.

21 JUDGE BECHHOEFER: Lines 19 through 22.

22 Q (By Judge Bechhoefer) And my question is how  
23 is that factored to your system for reportability, for  
24 reporting, I should say.

25 A Well, I haven't revisited the Quadrex words per

1 se. But they had identified these areas as places where  
2 they felt that additional attention may be warranted.  
3 And that did represent one of the items that was part of  
4 the follow up action plan.

5 My letter to Mr. Saltarelli addressed the facts  
6 that we had to do a number of things. No. 1, first order  
7 of business was to review the most serious findings, most  
8 serious discipline findings for reportability. And then  
9 another part of my direction to Brown & Root was  
10 requirement that we had to establish a plan of action to  
11 address all the findings.

12 And in the course of addressing all the  
13 findings, if information were to evolve that would put  
14 some new matter into sufficient perspective that it would  
15 represent an area that would have to be reported, then it  
16 might well be that that could become reportable.

17 At no time in the course of business, whether  
18 we talk Quadrex or we talk other activities of the  
19 project, information might surface which at a point in  
20 time its character is not reportable, but internally it  
21 always has the potential that more information could  
22 develop which could put an item into a potential  
23 reportable category. It goes to the question when does  
24 an observation that in the itself could be a concern,  
25 when does it become of sufficient substance to warrant

1 potential reportability report to the Nuclear Regulatory  
2 Commission. And that does get into a subjective region.

3           You have to see enough information to be of the  
4 mind that this matter needs to be investigated and  
5 following that investigation, you either see sufficient  
6 substance to turn it over to an IRC for evaluation or you  
7 don't. But the mere fact that you made an observation  
8 and you can't establish its character, doesn't instantly  
9 suggest that that should be turned over to the NRC as a  
10 potentially reportable item because it might turn out  
11 that way.

12           In theory every time a question surfaces for  
13 which someone doesn't have an answer, that might  
14 ultimately lead to a report. But you have to have enough  
15 substance to believe that it has the character for a  
16 potential reportability.

17           Q    Is that the context in which you viewed the  
18 so-called potential problem findings --

19           A    Yes, sir.

20           Q    -- of Quadrex?

21           A    Yes.

22           Q    You discussed with Judge Lamb to some extent  
23 and with several -- with the parties to some extent, why  
24 the IRC review or why the IRC did not do the review of  
25 the Quadrex report as such. In assigning the three man

1 committee, including yourself, to review this, what did  
2 you have in your mind what you should do with findings  
3 that you did not -- that you determined were not  
4 reportable in terms of documentation?

5           It's my -- as a predecessor, it's my  
6 understanding that IRC procedures required some  
7 documentation of items which they consider which are not  
8 reported.

9           Did you give any consideration to documenting  
10 why you didn't report certain of the findings you  
11 reviewed? I'm -- the reason I ask the question is  
12 because of your statement on page 38, your answer 47, I  
13 was wondering whether if strict IRC procedures had been  
14 followed, you would not have had as much difficulty in  
15 recollecting the reasons why you didn't report certain  
16 findings.

17           A     I'm sure that there's probably little less  
18 rigorous records than the kind that the IRC routinely  
19 keeps but what we did have was we had an input from Brown  
20 & Root on each and every serious discipline finding. And  
21 that was attached to Mr. Saltarelli's letter to myself, I  
22 believe, dated May the 8th. And in the course of the  
23 review, if we took issue with the finding, which as it  
24 turns out we did in the case of shielding calculations  
25 and in the case of the computer program verification,

1 once those matters had been called in to the Nuclear  
2 Regulatory Commission, they were documented by the  
3 chairman and the IRC; I mean it is practice to issue  
4 telephone notes and reports made to the NRC on matters  
5 that were reported. The depth of the records for the  
6 non-reportability at that point in contrast to the  
7 records that we now keep for the IRC, it wasn't as quite  
8 as as extensive as the IRC records.

9 Q Do you consider the reasons attached to Mr.  
10 Saltarelli's response here -- I guess the May 8 response  
11 of Mr. Saltarelli, are those reasons -- are you -- are  
12 you or in your testimony have you adopted essentially  
13 those reasons, or have you used different reasons in  
14 explaining why you did not report certain of the findings  
15 that you discuss in your testimony?

16 A I believe that they coincide with those  
17 findings, and there were, in the course of our dialogue  
18 among the three persons at HL&P, places were additional  
19 questions were raised to make sure we had the full  
20 insight. And there was internal discussion among the  
21 three of us; there was some discussion with Mr.  
22 Saltarelli on a couple of points. But we basically did  
23 accept the Brown & Root input because I had from two  
24 engineers who were part -- I mean they were present  
25 during the review of these matters, we had more than just

1 Mr. Saltarelli's input, we had the understandings gained  
2 by our own engineers who were present during that review  
3 by Brown & Root.

4 Q So I was just wondering why then it's your  
5 statement that it's difficult to recall the precise  
6 reasons. You were, in fact, were you not, relying on at  
7 least the Brown & Root records?

8 A As part of the input. And as I say, there were  
9 some dialogue that occurred in my office and it's  
10 difficult to recall all the dialogue. I think -- I'm  
11 trying to be as accurate as I can, that in all I needed  
12 to do was just take Mr. Saltarelli's input and adopt it  
13 as my own, then that might not have taken the amount of  
14 time that it took.

15 We worked at some length even before the input,  
16 there was some discussion in my office and then we  
17 received his input around noontime and worked fairly  
18 diligently on a continuing basis, until approximately  
19 6:00 or 6:30 that evening.

20 So I can assure you that there was a lot more  
21 involvement than just reviewing the words and saying  
22 "Well, that's okay." There were some probing questions  
23 to assure we had all the facts needed to make those  
24 judgments.

25 (No Hiatus.)

1 Q All right. Now, if the IRC had done that  
2 officially, though, that would have been recorded  
3 separately?

4 A I believe that would have been --

5 MR. SINKIN: I'm sorry, I didn't hear that.

6 MR. AXELRAD: I didn't hear the question.

7 JUDGE BECHHOEFER: Would that have been  
8 recorded separately?

9 Q (By Judge Bechhoefer) If the IRC had  
10 undertaken such a review, would that additional dialogue  
11 which went into the determinations have been recorded?

12 A I believe that would be the case in the IRC  
13 minutes, yes, sir.

14 Q Now, I have one question about your prior  
15 testimony. Let me find it.

16 JUDGE BECHHOEFER: Let me ask your counsel, do  
17 you have a copy of Mr. Goldberg's direct testimony from  
18 the earlier proceeding following transcript 906?

19 MR. SINKIN: You're referring to Phase I now,  
20 Mr. Chairman?

21 JUDGE BECHHOEFER: What?

22 MR. SINKIN: You're referring to Phase I?

23 JUDGE BECHHOEFER: Phase I, yes.

24 MR. AXELRAD: Are you talking about the  
25 prefiled testimony or --

1 JUDGE BECHHOEPER: Yes, yes.

2 MR. GUTTERMAN: Yes.

3 Q (By Judge Bechhoefer) I want to ask you some  
4 questions. They start on page 10.

5 But before we get to the major question, would  
6 you turn to page 14? Does the name at the bottom left  
7 refresh your recollection at all with respect to a  
8 question I asked you this morning about the  
9 participation of Baker & Botts attorneys in the review?

10 A I remember the question and the question was  
11 did the Baker & Botts attorneys participate in  
12 preparation of my testimony.

13 Q And I think I mentioned Mr. Hudson's name.

14 A That's right. And to the best of my  
15 knowledge, they did not participate in the preparation  
16 of my testimony. And --

17 Q Do you know what that notation means?

18 A I under -- I'm not sure. I think our  
19 attorneys are better able to explain that than I am.

20 I know that Baker & Botts' offices were the  
21 location where our attorneys did their work in the  
22 preparation of the testimony and it's possible that Mr.  
23 Hudson's name was used for some purpose. They might be  
24 able to help.

25 MR. AXELRAD: If I could explain to the

1 Board. All of the testimony was produced through word  
2 processing at Baker & Botts because that's where all the  
3 witnesses were and that's where the testimony was being  
4 prepared. All that notation indicates is the individual  
5 within Baker & Botts who sent the material over to word  
6 processing to have the word processing done.

7 JUDGE BECHHOEFER: Okay.

8 MR. AXELRAD: We were from Lowenstein &  
9 Newman, we were not a Baker & Botts lawyer, we  
10 couldn't --

11 JUDGE BECHHOEFER: No, I recognize that. I  
12 was just trying to figure out what the source of that  
13 was in conjunction with answers to some questions that  
14 not only I, but some other parties asked about the  
15 participation of Baker & Botts attorneys. That was the  
16 source of my question.

17 Q (By Judge Bechnoefer) Well, turning to the  
18 substance, Mr. Goldberg, in your answer to question 13,  
19 but you may have to read 12 as background, but in your  
20 answer to question 13, why wasn't either the Quadrex  
21 report or your letter to Mr. Saltarelli of May 6, which  
22 is Applicants' Exhibit 61, why wasn't that mentioned?  
23 Particularly in answer to question 13.

24 MR. AXELRAD: I assume the witness can take a  
25 few minutes to read a couple of pages?

1 JUDGE BECHHOEFER: Oh, of course. I'm not  
2 trying to rush you.

3 A All right. Mr. Chairman, the context of the  
4 questions that started on page 10 was getting into how  
5 HL&P's engineering functions. And we got into a  
6 dialogue on the day to day review, what documents do we  
7 review, what kind of guidance do we provide Brown &  
8 Root. And that's pretty much what I recall in looking  
9 at the questions and answers on page number 10. I talk  
10 about how we were set up to carry out that role.

11 Then when we got to question 13 where I was  
12 asked for examples of action that HL&P has recently  
13 taken as part of its direction of Brown & Root  
14 construction and design efforts, and again we were  
15 staying into the -- at least I was staying into the  
16 context of how we instruct Brown & Root, the utilization  
17 of criteria of 19CPR50, Appendix R. That when we become  
18 aware of pending regulatory change, that we are alerting  
19 Brown & Root that we think that these are matters that  
20 they have to start paying attention to, that we monitor  
21 their efforts and be sure that they meet the established  
22 criteria. It's getting more or less into the day to day  
23 interfacing between HL&P and Brown & Root engineering.

24 Q (By Judge Bechhoefer) Do you consider your  
25 letter to Mr. Saltarelli, the one I referred to,

1 Applicants' Exhibit 61, as somehow different from what  
2 you just described? This is the one where you asked  
3 them to develop or come up with answers to each of the  
4 findings in Quadrex. You issued this before Quadrex was  
5 actually issued, but --

6 A Well, it's certainly not a day to day kind of  
7 thing. I think it's in the realm of possibility that  
8 that might be viewed as other direction. Once we  
9 received the report, had given Brown & Root a direction  
10 to review it, so it is a form of direction.

11 But in my mind that is not -- that's so far  
12 removed from the day to day relationships that had been  
13 established and were being discussed. That's a very  
14 extraordinary thing. It hadn't been routine, either  
15 witnessed to my knowledge within the project or the  
16 industry.

17 So, rightly or wrongly, I didn't catalog that  
18 as a day to day design activity of HL&P. It was so  
19 extraordinary that I didn't even think that it could be  
20 handled adequately by the Incident Review Committee. It  
21 was an extraordinarily unusual practice, unusual for the  
22 industry, unusual for HL&P. It certainly just didn't  
23 fall in the mainstream of day to day engineering  
24 relationships between HL&P and Brown & Root. I think it  
25 was of that caliber or character that caused me to not

1 just treat it as a routine day to day relationship.

2 Q So, in other words, if it was less  
3 significant, you would have told us about it?

4 A Well, I hope I didn't say that. I think I was  
5 trying to characterize it had a very unusual character  
6 to it. It was not the kind of a relationship that was  
7 routinely in existence between HL&P and Brown & Root.

8 JUDGE BECHHOEFER: I think those are all of at  
9 least the major questions I have to ask. We think we'll  
10 adjourn at the present. I have a number of  
11 miscellaneous little things which overnight I may decide  
12 none of which are worth asking. I've made little notes  
13 as we've gone through the testimony. So, these are the  
14 only major areas that I wanted to ask about.

15 So, I think we should adjourn and when we come  
16 back I doubt if I will have very many more questions, if  
17 any. And then I assume we'll have some redirect to the  
18 extent you wish to.

19 MR. AXELRAD: Fine. And then just to make  
20 sure all the parties understand, after Mr. Goldberg is  
21 finished tomorrow, we will then take up the testimony of  
22 Dr. Sumpter?

23 JUDGE BECHHOEFER: Correct.

24 MR. AXELRAD: He is the next witness.

25 JUDGE BECHHOEFER: Okay. Back at 9:00

1 o'clock.

2 (Hearing recessed at 6:22 p.m.)

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

CERTIFICATE OF OFFICIAL REPORTER

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

NAME OF PROCEEDING: EVIDENTIARY HEARING  
HOUSTON LIGHTING AND POWER COMPANY,  
ET AL (SOUTH TEXAS PROJECT, UNITS 1  
AND 2)

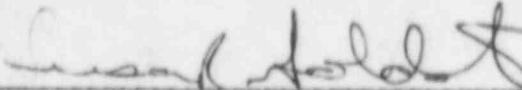
DOCKET NO. : STN 50-498-OL  
STN 50-499-OL

PLACE: HOUSTON, TX

DATE: Wednesday, July 17, 1985

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

  
R. Patrick Tate, CSR

  
Susan R. Goldstein, CSR

Official Reporters