

UNITED STATES OF AMERICA

BEFORE THE
NUCLEAR REGULATORY COMMISSION

In the Matter of:)
)
HOUSTON LIGHTING & POWER) Docket Nos. 50-498 OL
COMPANY, ET AL.) 50-499 OL
)
South Texas Nuclear Project)
Units 1 and 2)

Green Auditorium
South Texas College of Law
1303 San Jacinto Street
Houston, Texas

Saturday
June 20, 1981

PURSUANT TO ADJOURNMENT, the above-entitled matter
came on for further hearing at 9:00 a.m.

APPEARANCES:

Board Members:

CHARLES BECHHOEFER, ESQ., Chairman
Administrative Judge
Atomic Safety & Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ERNEST E. HILL, Nuclear Engineer
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1 APPEARANCES: (Continued)

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1 APPEARANCES: (Continued)

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5 For the Intervenor, Citizens Concerned About Nuclear Power:

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I N D E X

WITNESSES:

DIRECT CROSS REDIRECT RECROSS BOARD EXAM.

GEORGE W. OPREA, JR.
JOSEPH W. BRISKIN
RICHARD A. FRAZAR
EDWARD A. TURNER
(Resuming)

By Mr. Reis	5323		
By Judge Hill			5406
By Judge Lamb			5417
By Judge Bechhoefer			5474
By Mr. Axelrad		5499	
By Mr. Jordan			5500
By Mr. Sinkin			5512
By Mr. Reis			5543

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P R O C E E D I N G S

9:13 a.m.

JUDGE BECHHOEFER: On the record.

Two days ago I think we stated that we would restate the question which we wanted briefed, and which we perhaps then would certify.

We've done that, and as a predicate to that we believe it is possible to establish definitively the overlap and duplication among the various incident reports submitted by the various parties to the proceeding.

In order to clarify this matter, it may be necessary to have the Staff identify some of the individuals in its investigative reports who are currently identified by letters or numbers, as the case may be.

The question we would like to have briefed, and which we very well may certify to the Appeal Board after we've decided it, and I might add we had indicated that we had had a tentative conclusion, but you can brief this irrespective of any conclusion because our minds are not made up and certainly in terms of qualifications our minds are not made up, but the question, or questions that we want briefed are the following:

One. May the Staff be required to identify, dash, to the parties and the Board but not necessarily to the public, dash, the names of some or all individuals identified in

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inspection reports by letters or numbers.

In answering this question, assume that a party is seeking identification in order to present its case, that the inspection report bears upon a factual matter at issue in the proceeding, that the individuals in the report have not been positively identified through other means, and that a conflict or potential conflict with other factual evidence on a significant matter is apparent.

Discuss with respect to A --

MR. SINKIN: Excuse me, Mr. Chairman, could you go just a little slower?

JUDGE BECHHOEFER: I'm sorry.

Discuss with respect to A, participants who are not informants; B, participants who are also informants; and C, other informants.

Discuss also in terms of, one, a total pledge of confidentiality and, two, a limited pledge such as appears in at least one I&E report.

As an aside to that, one was identified. I was unable to track it down last night while I was writing this question.

MR. SINKIN: I think it's 81-17.

JUDGE BECHHOEFER: Right, but anyway, the reference is to the one that was identified in the record earlier.

That's just an aside.

1-3 1 Question 2. If not -- and that is if the Staff
2 may not be required to identify the individuals in question --
3 should the I&E report be excluded or stricken from evidence
4 insofar as its truth is concerned on motion of a party, and
5 in what circumstances, if any, should this be done.

6 And 3, if admissible, if the report is nevertheless
7 admissible, may a Board, such as we, decline to accord it any
8 weight solely because of the failure to identify some or all
9 of the unidentified individuals.

10 Now, those are the questions.

11 I might add, if the parties have had any problem
12 writing it down, I will pass around my written notes, which
13 might help, but they will appear in the transcript; the
14 questions will appear in the transcript as well.

15 As a second preliminary matter, and this relates
16 directly to the last question that was asked last night, the
17 Board believes it would be appropriate for the witnesses,
18 Mr. Oprea I believe is the primary on this point, to identify --
19 to categorize the incidents in a series of one to ten, if he
20 can do so, and instead of trying to just say trivial or
21 significant, we would like, if the witness can do so, to
22 categorize the -- well, I shouldn't say incidents -- the
23 alleged violations, I guess, in terms of a one-to-ten scale,
24 and the witness may identify what he regards as one and what
25 he regards as ten, in terms of --

1 MR. NEWMAN: May I inquire, what factors does the
2 Board want to have considered in that rating scale? Does the
3 Board wish to have considered the ease or difficulty of
4 correcting, the relationship to safety, the question of whether
5 the matter would have been determined or found to have been in
6 error prior to the start of plan operations, the question of
7 whether or not the particular violation affected one or more
8 parts of the plant, one or many parts of the plant?

9 I think those are all variations, and I wondered
10 whether you might just put a little meat on the bones.

11 MR. JORDAN: Your Honor, if I may jump in, we, of
12 course, would have been interested in the same questions. I
13 think Mr. Reis raised the point himself, or maybe Mr. Sinkin,
14 and to get to the issues of HL&P understanding of seriousness,
15 and so on, it seems to me the person who should define the
16 spectrum and the way he is making the rating is the person who
17 told us he has a one to ten rating.

18 We shouldn't create another one-to-ten rating system
19 for him. He said he has it. Let's hear from him what it is.
20 He can define it.

21 MR. REIS: Mr. Chairman, if I could be heard.

22 I in this particular matter tend to agree with the
23 Applicant. I want answers to my questions, but I don't think
24 it's necessary to have a complete rating system.

25 It was in the course of cross-examination where

1-5 1 somebody mentioned the scale of one to ten, and I, in following
2 cross-examination in trying to pin the witness down, I said,
3 "Okay, how do you rate this on a scale of one to ten," but
4 that was in the nature of cross-examination.

5 I don't really see a need for a scale. Of course,
6 that's up to the Board, but I do see some problems with it
7 that Mr. Newman talked about, and I would like to -- what I
8 want is a -- what I've been driving at is a realization because
9 I was troubled by some of the direct testimony here, a little
10 bit that perhaps there an inference that they didn't consider
11 some of the matters significant, and I'm not sure that all of
12 them are absolutely significant. There might be very few that
13 are not as significant as some others.

14 And I just wanted that on the record, of how HL&P
15 viewed these matters, and that's really where I was going when
16 we got bogged down in semantics, and I don't think it was my
17 semantics, by the way, the I word serious, and whether a
18 matter is serious, whether a matter is significant, I think
19 that's common English language, and I think we could get an
20 answer from the witness on that.

21 So I don't require, for the Staff's purpose,
22 certainly, that there be any scale. I think we're going to
23 get off into things -- also, it's the questions that Mr. Newman
24 talked about, what I was trying to get at was to overcome any
25 inference, from reading the negative or some positive statements,

1-6 1 really, in the record, that matters might not be significant,
2 that they might be --

3 MR. NEWMAN: Mr. Chairman --

4 MR. JORDAN: Mr. Chairman --

5 JUDGE BECHHOEFER: Well, what the Board had in mind
6 was that to avoid some of the semantic difficulties that we
7 were obviously, or we think we were having, if the witness who
8 I think mentioned the one-to-ten scale could rate them and then
9 tell us what he means by the rating, that would be satisfactory
10 to us.

11 I might add, we intend to ask a similar question
12 of whoever the appropriate Staff witness is.

13 MR. NEWMAN: Mr. Chairman, I wonder if we might
14 allow Mr. Reis to pursue his line of cross-examination and
15 then if at the conclusion of that the Board still feels a need
16 for some sort of a ranking, then perhaps the Board could phrase
17 it more precisely, the factors that it wants to go into the
18 ranking, but let's see whether Mr. Reis can elicit from the
19 witness some kind of response that satisfies the requirements
20 of the Board.

21 MR. SINKIN: Mr. Chairman, just so the record is
22 clear, I specifically asked at the end of yesterday, since
23 Mr. Oprea had said some were one's and some were ten's, if he
24 would take the time last night to look through and put them in
25 some rank order, and I intend to ask that very question of him.

1 MR. AXELRAD: Can you point to where that was in
2 the record?

3 MR. SINKIN: I don't have a copy of the transcript.
4 I'm sorry.

5 MR. NEWMAN: Well, it's not in the record.

6 MR. SINKIN: Oh, it certainly is in the record.
7 I'll find it.

8 MR. NEWMAN: Be my guest.

9 JUDGE BECHHOEFER: Off the record.

10 (Discussion off the record.)

11 JUDGE BECHHOEFER: Back on the record.

12 What the Board wanted to avoid was a semantic
13 argument because, now, this has taken 15 minutes or 30 minutes,
14 and we didn't think that was very productive.

15 MR. NEWMAN: All right. We've had an opportunity
16 to weigh what Mr. Reis was asking about, and I think that we at
17 least ought to try to see how Mr. Reis does with his own
18 examination, how the Intervenors do with their own examination,
19 before we plunge directly into the rating system, and see
20 whether the rating system is really necessary or feasible.

21 Let's go ahead with the normal course of cross-
22 examination from counsel from the Staff, from the Board, from
23 the Intervenors.

24 JUDGE BECHHOEFER: The Board is amenable to that
25 approach, but we do want to make it clear that we would like,

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1 in trying to either come up with a rating or at least an
2 evaluation, that safety factors should be pre-eminent,
3 certainly.

4 For instance, the witness has testified that he
5 views all of the alleged violations as serious, and I assume
6 he views it serious if nothing else because the Staff had an
7 allegation, maybe for other reasons as well, but I think in
8 terms -- we would like to know how he regards some of these
9 matters in terms of safety significance.

10 MR. NEWMAN: I think that perhaps with the assistance
11 of his technical staff he may be able to give you the answer to
12 the question of whether from a technical or safety standpoint
13 something is significant, and so I would suggest that we
14 proceed with the examination and just see where it takes us,
15 and just get on with the record.

16 JUDGE BECHHOEFER: All right. That's fine.

17 Now, are there any other preliminary matters before
18 we start with cross-examination?

19 (No response.)

20 JUDGE BECHHOEFER: All right.

21 Mr. Reis, you can resume.

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Whereupon,

GEORGE W. OPREA, JR.

JOSEPH W. BRISKIN

RICHARD A. RAZAR

EDWIN A. TURNER

having been previously duly cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, resumed the stand and testified further as follows:

JUDGE BECHHOEFER: Oh. Let's go off the record for just a second.

(Discussion off the record.)

JUDGE BECHHOEFER: Back on the record.

All right. Now, Mr. Reise, you may resume your cross-examination.

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CROSS-EXAMINATION

BY MR. REIS:

Q Mr. Oprea, let me say this as a preface. When I talk about serious and significant, I'm talking from a safety point of view, and that's what our concerns are in the Nuclear Regulatory Commission, as I think you well understand.

Yesterday I left you with the question of whether you believed any of the violations cited -- when I say "the violations cited," I mean the facts giving rise to the violation -- were trivial in any of the numbered violations in Appendix A to Investigative Report 79-19.

And I left you with the question whether you believed -- if you feel any of those matters were trivial?

BY WITNESS OPREA:

A Let me answer by first reiterating, Mr. Reis, that again, I personally and our company takes any violation that we're cited for on any of our nuclear projects as a serious matter.

In my testimony on page 19 I was not trying to downgrade the seriousness of the violations in the aggregate.

What I was attempting to say is that when you look at any particular incident, you lose sight of the underlying causes, and what we were focusing on were

1 the underlying causes that led to the 79-19 and related
2 action.

3 Also -- and I did appreciate, incidentally,
4 the opportunity last night to kind of clear the cobwebs
5 out a bit and review various documents and testimony to
6 put this in better perspective, hopefully.

7 Our response to the Notice of Violation, we
8 identified six root causes. Those six root causes were
9 identified with the express purpose to be able to trace
10 each violation to either one or several of them.

11 And as a result, what we did was focus our
12 attention on root causes, not a particular incident, but
13 the over-all underlying cause.

14 Therefore, when you look at root causes, they
15 are serious, and as a result, we don't look at anything
16 as trivia.

17 We looked at all these as a serious matter
18 that had to be reckoned with, and we had to, in essence,
19 neutralize the root cause situation, basically correct
20 it, get the deficiencies out of the way that led to the
21 violation.

22 Deficiencies, now, as I connotate them in
23 the root-cause category.

24 As a result, in reviewing it from that standpoint,
25 I had a real difficulty attempting to come up with any

-3 1 useful scale on these violations, mainly because some
2 violations perhaps had a more pervasive end effect on
3 the over-all project from the standpoint of safety, like
4 auditing and trending.

5 That basically is a management tool. That
6 tool was not readily available. It could have a significant
7 impact on the ability to identify, keep abreast and, of
8 course, to insert the necessary prerogatives on the quality
9 program to assure that things were maintained in the balance.

10 On a similar basis, when you talk about intimidation
11 and harassment, that is basic and essential to the very
12 tool of freedom and independence of the quality assurance
13 action, or quality assurance/control activities that relate
14 to the project.

15 In reviewing this further, on page 19 I talked
16 about, again, that we had to take a look at the 22 violations
17 in the aggregate, not as individual instance, because
18 if you looked at individual instance, there might be several,
19 as you indicated, that might be minor in nature.

20 This is, again, from a technical standpoint;
21 but, again, what we wanted to do was take a look, and
22 what we did was take a look, not at the symptoms, but
23 the causative factor that related to it.

24 As an example, Violation 16, I believe, was
25 the hammer weight. When you look at that by itself, when

1 we really looked at what happened there, there was a very
2 small differential between the hammer weight that was
3 used and the criteria, and that could have been looked
4 upon by itself as a very minor incident.

5 But significantly, from the standpoint of
6 root cause, it related to not documenting a nonconformance
7 condition.

8 Violation 17, which was the split spoon, again
9 standing alone by itself, the dimensional problem and
10 a little distortion on it, standing by itself could represent
11 a very minor thing from a technical standpoint; but from
12 the standpoint of interrelating it back to root cause,
13 it related again to the training aspects, as well as the
14 area of documentation and systems control, or procedure
15 control.

16 Then finally, looking at Violation 20, which
17 was loose tie wires and the sort of looseness of rebar
18 as a prelude to concrete placement, one would attempt
19 to handle that perhaps as a minor construction procedure;
20 but we treated it, again, as a problem under root cause
21 definition that relates to training, but also that had
22 the potential of showing additional exertion of construction
23 pressure on quality assurance and quality control.

24 So the bottom line is when we look at all
25 of these under the panoply of root cause, none of the

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1 matters were looked upon as minor. They were looked upon
2 as serious aspects of our program that could affect the
3 quality assurance or safety aspects of the project.

4 Q Thank you.

5 Mr. Oprea, at page 11 of your testimony, the
6 last sentence of the first paragraph: "Our audits confirmed
7 that construction generally was proceeding in compliance
8 with NRC requirements and project design requirements."

9 There were instances where your audits had
10 failed to uncover improper construction, weren't there,
11 as well?

12 BY WITNESS OPREA:

13 A Well, I don't know if there were instances
14 where the audits themselves did not uncover. Perhaps
15 there were instances where the audits themselves were
16 not as thorough from the standpoint of reviewing all the
17 various aspects of those things that pertained to those
18 areas that were audited.

19 I don't recall, Mr. Reis, in all fairness,
20 any instant where the audit, per se, and it was identified
21 as a result of the audit, that we were not able to uncover
22 something.

23 It could be that there was a deficiency in
24 the make-up of the audit that in retrospect when you look
25 back at it, that if we were to have put a few more elements

1 in the audit or perhaps embellish a little more on requirements
2 in the procedure that would have provided our staff a
3 greater insight in regard to those things that perhaps
4 could have been a problem.

5 BY WITNESS FRAZAR:

6 A Mr. Reis?

7 Q Yes, sir.

8 BY WITNESS FRAZAR:

9 A I might add that I think in response to the
10 show-cause order, we confirmed what the NRC had found,
11 which is that both the Brown & Root and Houston Lighting
12 & Power Company audits of the project did not go to the
13 level of verifying through direct observation of work
14 in progress in the field that activities were being conducted
15 in conformance with the procedures and specifications
16 that were in existence.

17 While we can't specifically say that -- I
18 can't give you a specific example that says that the audit
19 failed to uncover some aspect of the work, certainly the
20 fact that they weren't going out in the field during the
21 course of the audits to really look at the work that was
22 being performed, it's fairly obvious to me, at least,
23 that if you don't do that, then you definitely have a
24 good chance of not detecting certain things that are being
25 done in nonconformance with the procedures and the requirements,

1 which ultimately tie back in, of course, to the Commission's
2 regulations.

3 Q Right. I take it what you're saying to me,
4 Mr. Frazar, is even though you might have a paper trail,
5 it does not necessarily show that the work was adequately
6 performed?

7 BY WITNESS FRAZAR:

8 Auditing of records only as an auditing process
9 will not give you the degree of assurance that is intended,
10 in my opinion, from an audit system.

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1 Q On page 13 of your testimony in answer to
2 Question 15, and if you'll take a minute to read that
3 through, I'll have a few questions about that answer.

4 (Witness reviews document.)

5 BY WITNESS OPREA:

6 A All right, sir.

7 Q Now you there talk about some isolated instances.
8 Some of those isolated instances were fairly serious,
9 were they not?

10 BY WITNESS OPREA:

11 A Well, when you talk about serious, again,
12 in the connotation that you and I discussed earlier when
13 I talked about significance relative to the safety aspects
14 or the over-all quality assurance program, based on my
15 understanding of -- For instance, talk about the Marshall
16 incident, where there was a physical altercation between
17 Mr. Marshall and somebody else on the bed of steel as
18 a prelude to concrete pour.

19 Several other incidents, perhaps, I remember
20 at one time somebody said something about people threatening
21 other people. I remember the case of a carpenter apparently
22 approached somebody that was watering down the concrete
23 in order to keep it moist after a pour, and, of course,
24 the drippings, if I can call it, from the wetting down
25 action falling on the individual below and he got a little

-9 1 upset, not knowing what was going on. He probably thought
2 it was a deliberate intent on the part of the individual
3 to try to wet him down in a more covert way.

4 There are a couple of other areas, perhaps,
5 where there was -- probably in early '79, I believe, where
6 a couple of people got involved in a long drawn-out diatribe
7 relative to cleanliness of a pour.

8 These were incidents that, again, when I relate
9 to the construction activities, it happens on many jobs,
10 not only nuclear jobs; and so looking at what happened
11 there and the fact that corrective action had been taken,
12 the action taken both by Brown & Root and by our staff,
13 indeed, were attentive to the problem, at least in my
14 mind's eye from the results that I received, indicated
15 the solutions were handily taken care of.

16 I did not look at them as serious problems
17 from the standpoint of the potential of degrading the
18 safety aspects of the plant.

19 BY WITNESS FRAZAR:

20 A Mr. Reis, also, my staff, you know, was involved
21 a great deal in investigating most of these items because
22 they were there on the site when they came up.

23 I remember that one of the biggest concerns
24 that we had about each and every case where there was
25 either an exchange of abusive language or even to the

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1 point of the physical altercations that have been reviewed
2 in some detail, is that it's not so much the effect --
3 although it's serious -- it's not so much the effect that
4 it has between the two parties that may be involved, so
5 much as it is the appearance that that gives to other
6 people around who are standing and observing what's going
7 on and looking at the incident as it takes place.

8 They draw from that certain inferences of
9 what management's attitude is about tolerating that sort
10 of thing.

11 That's the direction from which we tried to
12 come in addressing the items. We take action with respect
13 to the specific instance.

14 We terminate people or we discipline them
15 or whatever to try to get those specific individuals to
16 clean up their act, or if the case is serious enough,
17 we've terminated them and got them off the project.

18 But the more pervasive effect is what we've
19 been concerned about, how the other people who are standing
20 around view that and what effect that has on their attitude
21 toward their job and so forth.

22 It's in those areas that we've tried to continually
23 address corrective actions through meetings, through policies,
24 through discussions with the people and so forth.

25 Q In that context -- I'm sorry, go ahead.

1 BY WITNESS OPREA:

2 A Excuse me. I just want to make sure that
3 when I talk about viewing these in a serious nature, and
4 again, relating them back to the quality aspects and safety
5 aspects of the plant, just because it didn't appear, as
6 I look at it, that we had overlying significant problems,
7 that I was not concerned.

8 I was concerned with any incident that occurred
9 on that project, mainly because they have the beginnings
10 of something, if it's not handled properly, if it's not
11 accorded the amount of attention it should have, that
12 it could turn into something else at a later date.

13 Q In the context of what you've just said, how
14 do you look at the incident of where a construction worker
15 threatened to get a QA inspector in the parking lot with
16 a Magnum?

17 BY WITNESS OPREA:

18 A I look at that as serious. I look at that,
19 perhaps, as a very serious chink in the character of the
20 individual; and in a case like that, we certainly should
21 not tolerate an instance like that.

22 BY WITNESS FRAZAR:

23 A You know, Mr. Reis --

24 Q With a threat like that on the job, do you
25 think that could have any effect on the work of quality

1 assurance inspectors?

2 BY WITNESS OPREA:

3 A. Excuse me. Let me go ahead and answer it.

4 From the standpoint of the impact and the
5 over-all morale and the activities of the project, if
6 that went unchecked, it sure would; but you have to react
7 instantaneously to that and make sure that the message
8 goes out to the balance of the people on site that those
9 actions or any other actions similar to it will not be
10 tolerated, that we expect the manner of professionalism,
11 even at the craft level -- many of these people are educated
12 just maybe through certain levels, high school or not
13 even through high school -- that we expect a professional
14 interrelationship to take place between those that are
15 the doers and those that are the inspectors.

16 Of course, that was one of the reasons why
17 the policy was set up for people to respond, and if they
18 don't respond, we will take what action is necessary to
19 make sure they do.

20 Many times that action has been in the past
21 severance from the job.

22 Q And your answer would apply to other threats
23 of physical violence on the job, such as throwing an inspector
24 off the wall or --

25 //

1 BY WITNESS OPREA:

2 A Well, if such case really occurred, if the
3 man was thrown off. There are --

4 Q No, he wasn't. Threatening. Threatening
5 to throw the inspector off the wall, or threatening --
6 or coming at an inspector with a shovel, for instance?

7 MR. NEWMAN: Is that a hypothetical question
8 you're putting?

9 MR. REIS: No. One of the reports, and I
10 don't recall exactly which one, does indicate that an
11 inspector -- he backed off.

12 WITNESS OPREA: Well, I remember the case
13 where an inspector was threatened on a reactor building,
14 and a construction fellow said something about, "Pick
15 a spot and we'll throw you off," and the guy says, "Come
16 on and do it."

17 He never did it, so that was just a verbal
18 confrontation. It was a flexing of muscles.

19 But here again, these are things that, again,
20 taken in the context of a simple incident whereby anything
21 physical resulted from it -- we know that at times there's
22 going to be a verbal exchange between people.

23 Then it was checked and a few months later
24 we found out that these fellows were on fairly decent
25 talking terms with one another and there was no incident.

-14 1 They recognized that it was a flare-up, a frailty
2 that shows up.

3 BY MR. REIS:

4 Q Let me ask you this. If these instances go
5 on and even if the QA inspectors would not recognize they
6 are lessening the severity with which they conduct inspections,
7 could this type of threat, the continuance of this type
8 of threat, have an effect on the quality of inspections?

9 BY WITNESS OPREA:

10 A Recognizing that it had, and remember we're
11 putting this in a hypothetical case, and assuming that
12 nothing has taken place since we've been aware of some
13 of these problems, that we'd sit back in sort of a docile
14 dormant condition, yes, I would say if it went unchecked.

15 But action has been taken. There's been a
16 lot of effort and work on the part of Brown & Root and
17 Houston Lighting & Power Company to keep these in check.

18 There's a greater rapport on that project
19 from the standpoint of people understanding their professional
20 obligations and responsibilities to that project.

21 I recognize that if we had done nothing, there
22 could have been. There could have been some potential
23 problems.

24 BY WITNESS TURNER:

25 A Mr. Reis, may I expand on that just a little

1 bit?

2 Q Yes, Mr. Turner.

3 BY WITNESS TURNER:

4 A I think one of the things that's very important
5 to recognize is that if you continue to allow this alleged
6 intimidation or harassment, if it did exist, and if it's
7 continued to be allowed, then you build up an adversary
8 relationship between your constructor and your inspector,
9 and that is something that the project just cannot stand
10 or tolerate.

11 That's why, as Mr. Oprea pointed out earlier,
12 what we are trying to do is go back to the root cause.
13 What are the items that are bringing about the phone calls
14 to the NRC, for instance? What's making these people
15 pick up the phone?

16 Are they really concerned about their safety,
17 and so we are working continuously and we'll have to continually
18 work -- we do it on fossil projects as well, I might add --
19 to get a relationship that's not adversary between the
20 inspector and constructor.

21 They have to work at arm's length, mind you,
22 to get a quality plant, but they shouldn't be adversaries.

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1 BY MR. REIS:

2 Q In talking about looking into it, and generally
3 looking into it, have you also looked into whether the quality
4 of the construction, itself, had led to more of an adversary
5 relationship between the inspector and the construction?

6 MR. NEWMAN: Mr. Reis, I'm not sure that that
7 question could be heard. I would have to have it read back.
8 I don't think there's a question there.

9 MR. REIS: I think the first words were "Did you
10 also in looking" --

11 MR. NEWMAN: I think your question was did the
12 quality of the work --

13 BY MR. REIS:

14 Q In looking at --

15 MR. REIS: Let me rephrase it.

16 MR. NEWMAN: Could we have it read back?

17 MR. REIS: Mr. Chairman, did you get the question?

18 JUDGE BECHHOEFER: No. I was going to ask you to
19 ask it one more time, if you will, Mr. Reis.

20 MR. REIS: Okay.

21 BY MR. REIS:

22 Q In looking at the relationship and the calls to
23 the NRC, and those sorts of things, that went on on this job --
24 when I say "the relationship" I mean between quality people
25 and the construction people --

1 BY WITNESS TURNER:

2 A Yes.

3 Q -- in looking at that, and looking at the threats
4 or calls to the NRC, did you also look to whether the quality
5 of construction on the job was a factor that might lead to an
6 adversarial relationship and friction between the quality
7 people and the construction people; did you look at that?

8 BY WITNESS TURNER:

9 A Was the question --

10 JUDGE BECHHOEFER: It's a long question.

11 MR. NEWMAN: Yes.

12 WITNESS TURNER: Was the question did the adversary
13 relationship affect the quality, or was the question --

14 BY MR. REIS:

15 Q Did the incidents that have been recorded, did you
16 look to whether the incidents that have been recorded, and the
17 calls to the NRC, stemmed from the quality of the work?

18 In other words, did the quality of the work, itself,
19 create an adversary relationship between the quality people and
20 the construction people?

21 BY WITNESS TURNER:

22 A Excuse me. If I understand you correctly, the
23 quality of work being the work being performed by the
24 construction people at Brown & Root?

25 Q Right.

3
1 BY WITNESS TURNER:

2 A And the question was did we look into whether that
3 was the cause for some of the adversary relationships, or
4 alleged adversary relationships?

5 Q That's right.

6 BY WITNESS TURNER:

7 A I believe there was in the Order to Show Cause an
8 instance where the QA/QC inspectors did not feel that the
9 construction people were completing, if you will, their effort
10 in doing a complete job prior to a concrete placement, or prior
11 to some other activity. That was alleged.

12 Whether I believe that to be the case or not, no,
13 I don't. I think that the relationship between QA/QC folk,
14 and the construction people continually improved, once we,
15 Brown & Root and Houston Lighting & Power Company, came forth
16 with stronger involvement to let both of these parties under-
17 stand that management would not support or tolerate any
18 harassment, intimidation, and that we wanted quality work on
19 the part of the constructor and on the part of the quality
20 control inspector.

21 BY WITNESS FRAZAR:

22 A Mr. Reis --

23 Q Yes, sir.

24 BY WITNESS FRAZAR:

25 A -- both during 1978, I think as is reflected in

1 the documents that we provided yesterday, and later on, we have
2 continually looked at procedure, because procedures are what
3 control the activities of both construction and quality control
4 at the jobsite, and those procedures have been continually
5 evolving and being refined over the course of the project to
6 try to get the procedures to be more clear, more concise, to
7 have acceptance criteria, which are clearly understood by
8 construction and QC when they go to the field to do their work.

9 There were times in the project, and I'm not saying
10 that we're perfect in that regard today, because we are
11 constantly taking up new activities and producing procedures
12 to control those activities, but in our best attempts to define
13 clear acceptance criteria that can be met by both construction
14 and QC in doing their work, we have missed the mark on
15 occasion and we have provided a criteria that have not been
16 easily understood or interpreted at the craft foreman level,
17 or the craft level, and the QC inspector level. And in those
18 cases construction has done their level best to build the plant
19 in accordance with what they thought the procedures, or the
20 drawings were calling for them to do.

21 The QC inspectors then would do their inspections,
22 and they had their own interpretations of what that really was
23 calling for.

24 And where there were those kinds of disagreements,
25 certainly that contributed to some adversarial-type relationship

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1 or friction between QC and construction. And I think that is
2 reflected in the root cause, the fact that the very first one
3 of the root causes, in fact, relates to the translation of
4 requirements down to the job in clear concise procedures and
5 specifications.

6 To that extent I think that adds to the answer to
7 your question.

8 Q Yes, sir.

9 Now, going back to the question: Can a -- Would
10 a poor-quality job -- I'm not saying that this is a poor-quality
11 job; it's a hypothetical -- tend to increase friction between
12 inspectors and those who are doing the work?

13 BY WITNESS FRAZAR:

14 A I would say so, yes, sir. I think when the QC
15 inspector has the responsibility for inspecting the work to
16 see that the requirements have been met, and on a regular basis
17 when they do that inspection the requirements they find have
18 not been met, then there is a good chance there for friction
19 to occur between the people that have done the work, because,
20 first of all, they are not always appreciative of somebody
21 coming behind and checking their work, but that's a necessary
22 requirement that that be done. And if they haven't done it
23 right, I'm sure that they being people who try to do the job
24 right would get frustrated, as the QC inspectors would get
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1 frustrated over not having the work done right more of the
 2 time, and having to go through the rejection process, and so
 3 forth. And I think those frustrations would manifest themselves
 4 in terms of additional friction between the parties.

5 Q Did HL&P, in looking into the causes of friction
 6 between the quality inspection personnel, and the construction
 7 personnel, examine quality of the work to see if it was the
 8 cause of any perceived friction?

9 BY WITNESS FRAZAR:

10 A I can't say that we formally focused a study on
 11 that kind of a thing. Certainly, as I mentioned earlier, when
 12 you look at the performance of construction, how many times
 13 they do the job right the first time, what their attitude is
 14 toward achieving the results in accordance with the
 15 specifications and procedures right the first time, that is an
 16 element we looked at in terms of focusing on the root causes,
 17 and trying to get to the issue of friction, and intimidation
 18 between QA/QC, as well as other things. Such as supervision
 19 support for the QC inspectors, and proper supervision in the
 20 craft ranks, and that sort thing.

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1 I think the remarks that were summarized in my
2 1978 meeting with the QAMRB, for example, talked about the need
3 to assign additional -- or maybe it was later that Brown & Root
4 assign additional construction engineering forces to the job-
5 site for the very purpose of aiding the construction people to
6 interpret what the requirements were, and to try to perform
7 within those requirements, as well as to resolve problems right
8 there on the spot and minimize the incubation period, if you
9 will, of those non-conformances, or whatever, which sometimes
10 makes more frustration, because people want to get those
11 problems solved and move on ahead to other things.

12 Q Thank you. Going back, we talked about physical
13 threats. I want to talk about some other, and ask you what is
14 your feeling about, and whether you feel this can have an
15 effect on the duties of QC inspectors on the job where an
16 instance comes to light where a QA supervisor tells a QA
17 inspector that after an NRC investigation is complete some
18 people would be fired.

19 BY WITNESS OPREA:

20 A Are you speaking to me, Mr. Reis, or anyone?

21 Q Well the panel.

22 BY WITNESS OPREA:

23 A Let me mention that. I think the individual that's
24 been cited that made that, unfortunately did not articulate
25 too late. The intent was not to do that, if I recall the one

1 incident.

2 Now, there might be another one that I am not
3 familiar with, but this individual did not intend, if you are
4 referring Mr. Warnick, I presume.

5 Q This is a reference, actually, to something
6 Mr. Singleton said.

7 BY WITNESS OPREA:

8 A Mr. Singleton?

9 Q Yes, sir.

10 BY WITNESS OPREA:

11 A Maybe I'm not familiar with that incident.

12 BY WITNESS FRAZAR:

13 A I'm familiar with that one, Mr. Reis. I really --
14 You know, it's hard for us to comment on what Mr. Singleton
15 said there, because it is taken somewhat out of context. You
16 might want to ask Mr. Singleton about that when he is on the
17 stand. He is going to be presented as a witness. As to what
18 he meant and the context in which he said it.

19 However, if he said that seriously, I would take
20 that with a great deal of austerity as being a comment that was
21 inappropriate, completely.

22 Q What if --

23 BY WITNESS FRAZAR:

24 A If it was, on the other hand, a comment that was
25 done in somewhat of a jocular manner, which, you know, we do

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1 that from time to time on the project, and if it was done in
2 that context it might be a very innocent situation, and might
3 not have that effect.

4 Q Is it appropriate to joke that you are going to
5 fire people who report matters to the NRC?

6 BY WITNESS FRAZAR:

7 A I don't think that's what his comment was. I
8 certainly wouldn't joke about that sort of thing myself, nor
9 would I expect any of the people on the project to joke about
10 firing people if they went to the NRC.

11 Some people have a different level of sense of
12 humor than I do.

13 BY WITNESS TURNER:

14 A Mr. Reis, it's not appropriate to joke about
15 firing anybody, period.

16 Q What if was perceived -- Would you consider it
17 serious if it was perceived by people he spoke to that what he
18 was saying was that people would be fired because they went to
19 the NRC?

20 BY WITNESS FRAZAR:

21 A Yes, sir. Absolutely. It would be serious if
22 they have the perception that Mr. Singleton in making that
23 remark was seriously saying that when the NRC completed their
24 investigation or inspection that they were going to go around
25 and clean house, so to speak, with regard to anybody that they

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were able to identify that had informed the NRC of any matter,
yes, sir, we would treat that very seriously.

MR. NEWMAN: Mr. Reis, excuse me.

Mr. Chairman, could the record be helped. I am
not sure about the Singleton incident that's being referred
to.

Is that in any document that you are looking at?

MR. REIS: Yes, sir.

MR. NEWMAN: If it's a 79-19, I guess all I'm
saying is let's just tie it down to which one you are referring
to.

MR. REIS: Sure.

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1 MR. REIS: 1-G, now I'm just looking here. I
2 don't --

3 1-H, violation 1, Example H.

4 MR. NEWMAN: Example H.

5 MR. REIS: And through that if you check back there
6 are cross references there to people who say, the violation, and
7 if you go through the letters, and you read by and forth, you
8 can flush out the incidents pretty well.

9 MR. NEWMAN: I appreciate the clarification.

10 MR. REIS: And within the document, itself, these
11 things are pretty well described.

12 WITNESS FRAZAR: Mr. Reis --

13 MR. REIS: Yes, sir.

14 WITNESS FRAZAR: I think you said Mr. Warnick
15 just now. Is that what you intended to say?

16 MR. REIS: It was Mr. Singleton on 1-H; on No. 1,
17 Example H, it was Mr. Singleton, and though going back to the
18 example, and to the letter designation of the individual who
19 gave the example, and the allegation number, which there are
20 allegation numbers --

21 MR. NEWMAN: Yes. I understand. I'm --

22 MR. REIS: -- through it you can weave a path.

23 MR. NEWMAN: I'm not trying to establish the
24 veracity of any of it. I just wanted an identification for
25 the record.

1 JUDGE BECHHOEFER: Is the incident involving
2 Mr. Warnick also specifically a part of 79-19?

3 MR. REIS: Oh, yes.

4 JUDGE BECHHOEFER: Could you identify the number
5 there, just to clarify the --

6 MR. REIS: I believe that was 1-G.

7 JUDGE BECHHOEFER: 1-G is an incident of that
8 type, so

9 MR. REIS: And it is also allegation 1, and if
10 you look through it you will find it cross-referenced in all
11 ways.

12 One second, please.

13 BY MR. REIS:

14 Q Mr. Oprea, have you been listening to Mr. Frazar's
15 answers?

16 BY WITNESS OPREA:

17 A Yes. I have.

18 Q Do you agree with them, generally?

19 BY WITNESS OPREA:

20 A Generally, yes.

21 Q Is there any particular that you disagree with?

22 BY WITNESS OPREA:

23 A No.

24 Q Mr. Frazar, you testified before about actions
25 taken after your 1978 meeting with Brown & Root, I believe it

1 was in January 1978, and there was another one a few months
2 later; is that so?

3 BY WITNESS FRAZAR:

4 A Yes, sir. That is correct.

5 Q Were the actions taken as a result of those items
6 when you look from hindsight, and you look at the instances
7 reported in 79-19, were those actions effective?

8 BY WITNESS FRAZAR:

9 A Mr. Reis, I can't say that those actions were
10 effective in dealing with -- in the depth necessary to preclude
11 some of the items that came out in 79-19.

12 They certainly were affirmative actions that
13 appeared to us at the time to address the subjects that I
14 mentioned at that particular meeting, which is summarized in
15 the document we provided yesterday, I believe it was Applicant's
16 Exhibit 44.

17 We continued to monitor, and I think my follow-up
18 meeting in May essentially gave somewhat of a positive report
19 back to the Brown & Root management that we saw that they were
20 taking actions. However, it didn't say that we were satisfied
21 that those actions that had been taken at that time solved
22 any of the problems, that there was more time needed to see if
23 in fact they had solved those problems.

24 And I think that the problems also in '78 that I
25 was talking to were somewhat different than some of the problems

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1 that we talked about in 79-19, although there was some
2 commonality, as well.

3 BY WITNESS OPREA:

4 A I would like to embellish on that, too, Mr. Reis,
5 from my own observation.

6 Q Sure.

7 BY WITNESS OPREA:

8 A In retrospect, in looking at it from what has
9 occurred, looking at it from where we sit today, back through
10 the years, against that point in time, like '78-'79, looking
11 at the particular timeframe, I feel very similar to Mr. Frazar.

12 I felt that the actions that were taken were
13 getting some results, but when you look back in time these
14 results were not as far afield as they should be. We were
15 taking positive steps, corrective action was moving forward in
16 a positive vein, but the scope of that corrective action was
17 not all-embracing, as it should have been.

18 BY WITNESS FRAZAR:

19 A I might add that certainly the actions that we
20 took in response to 79-19 in the Show Cause Order have been
21 quite different than the actions that we took in 1978, to
22 address some of the similar subject areas.

23 For example, in the area of management involvement
24 in the program, that was identified as was reflected in the
25 paper that we handed out yesterday, and the actions were taken

5
1 were to assign some additional people to the Brown & Root QA
2 organization. Mr. Paperno and Mr. Vincent reported in and
3 were assigned to the project.

4 Additionally, Brown & Root executive management
5 held meetings at the jobsite on a monthly basis to review the
6 progress and the problems. So that was an attempt at that
7 point to demonstrate management support for the program, as
8 well as construction management, for example, and QA management
9 had meetings with all of the construction people in '78 to
10 reinforce to them that the QA program was indeed support by
11 top management of Brown & Root.

12 On a contrast the actions that we took in response
13 to 79-19 in the Show Cause Order were much drastically different
14 and involved my going to the jobsite on a full-time basis, and
15 taking over the helm of the HL&P organization, a restructuring
16 of both the organizations to align the functional
17 responsibilities differently within the organization; the
18 infusion of a lot of additional experience.

19 Mr. Oprea and others coming very regularly to the
20 jobsite to be involved with the project. Certainly Mr. Oprea
21 shed a great deal of responsibility to take over full-time
22 nuclear matters.

23 So, it was a much more, in degree we went much
24 further in 79-19 than we had in 78.

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Q Now, I have just a couple of questions about the voids in the concrete.

How long after you found the voids in reactor containment building No. 1 did you look for voids in reactor containment building No. 2 shell wall?

BY WITNESS FRAZAR:

A Mr. Reis, I can't give you a precise timeframe. It was on the order of several months later. I'm not sure exactly how much later.

I think I discussed yesterday in testimony that our initial discovery of voids was in Lift 15 of Unit 1, and that we had spent quite a bit of time examining the causes, solutions, and that sort of thing to Lift 15 before we turned our attention to the possibility that there might be problems in the other areas of the plant.

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1 Once we turned our attention to the other areas,
2 then we proceeded straight through from Unit 1, and then moved
3 over to Unit 2 after we completed Unit 1, and went through
4 the process of examining those areas where we thought there
5 was a potential of voids existing.

6 So there was a little time, just because of the
7 study involved on Lift 15, before we started examining the
8 other areas, but we certainly marched right on through after
9 that process started.

10 BY MR. REIS:

11 Q Was there any particular person who directed the
12 appropriateness to you of examining whether there were voids
13 in other lifts on Reactor Containment Building 1?

14 BY WITNESS FRAZAR:

15 A Yes, sir. I think Mr. Oprea and Mr. Turner at
16 that time I think were both very involved, and I think Mr. Oprea
17 even indicated yesterday in testimony that when we found the
18 voids in Lift 8 that he directed specifically that all of the
19 safety-related concrete in the plant be checked out to determine
20 if we had voiding in other areas.

21 BY WITNESS OPREA:

22 A I just wanted to add the fact that that program
23 that we initiated in mid-year '79 was one with the express
24 purpose of looking at every safety-related bit of concrete.

25 And, as Mr. Frazar said, Unit 2 just followed in

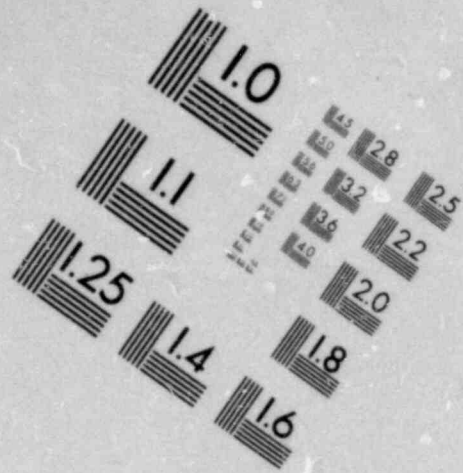
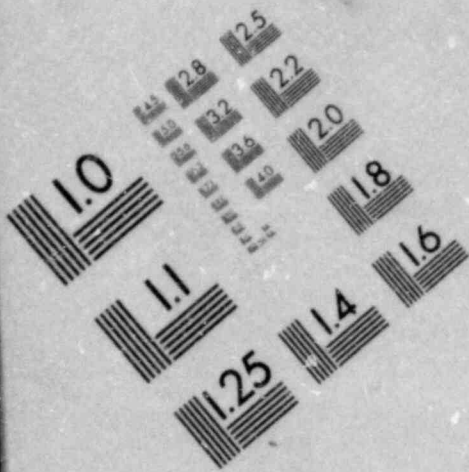
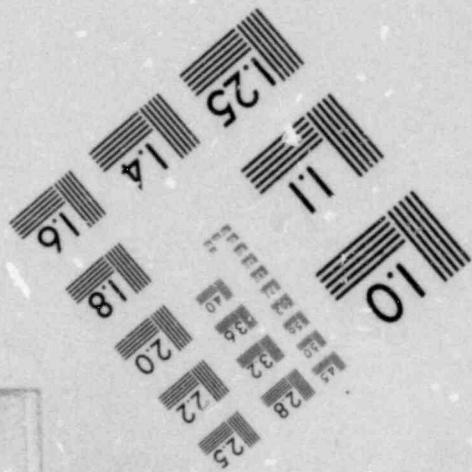
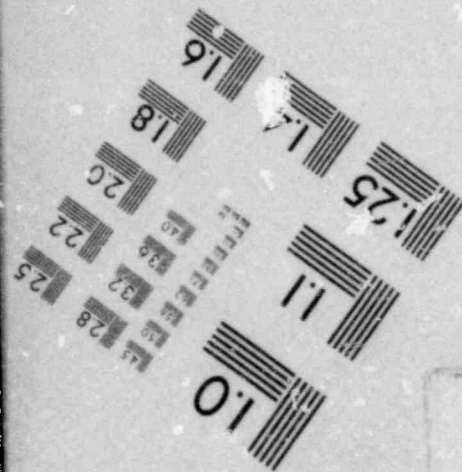
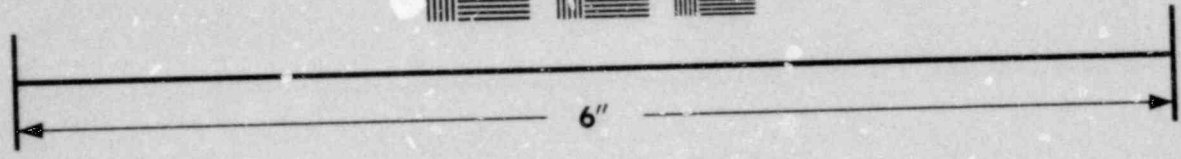


IMAGE EVALUATION
TEST TARGET (MT-3)



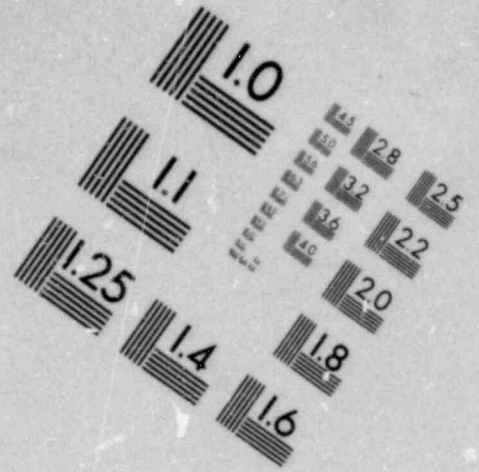
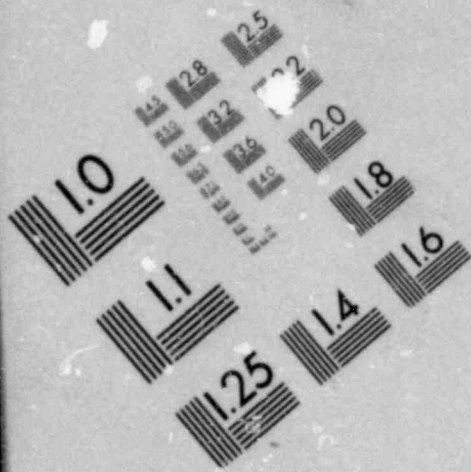
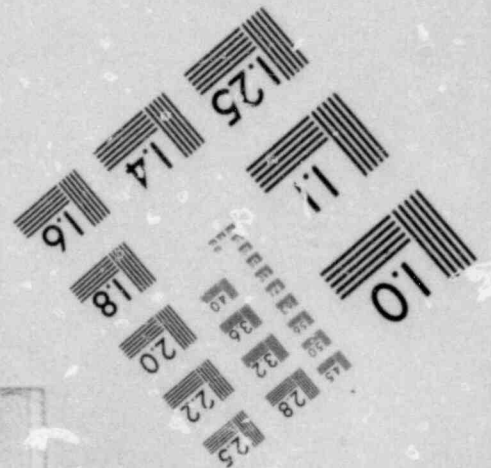
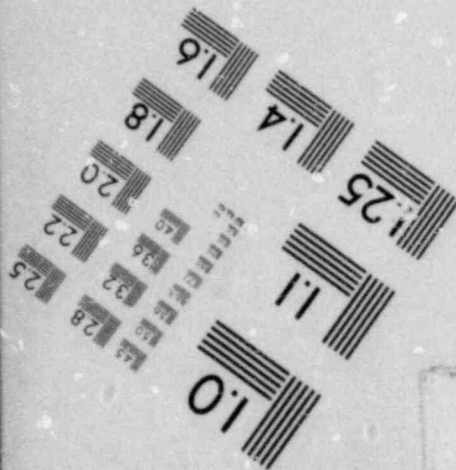
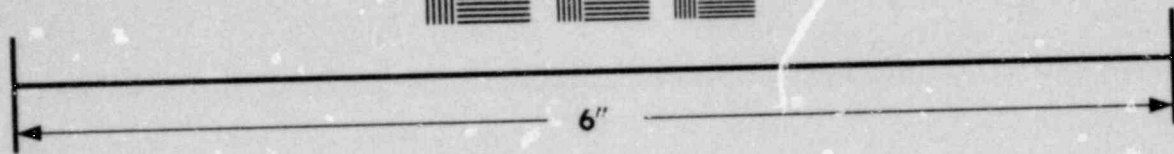
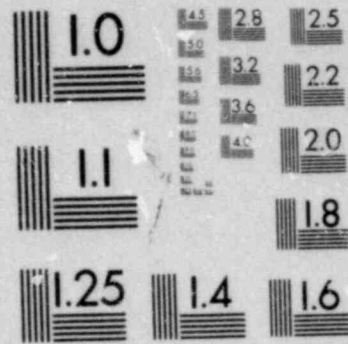


IMAGE EVALUATION
TEST TARGET (MT-3)



1 the normal sequence after the Unit 1 studies or investigations
2 were completed.

3 Q Do you know whether the NRC informed Morgan Rosen
4 that it would be appropriate to check the other lifts in
5 December 1978, after the voids were found in Lift 15?

6 MR. NEWMAN: Could you repeat that? Morgan Rosen?

7 MR. REIS: Logan Wilson.

8 MR. NEWMAN: All right.

9 MR. REIS: I think I did say Rosen. I meant
10 Logan Wilson.

11 BY WITNESS FRAZAR:

12 A Mr. Reis, I observed Mr. Hubacek whispering in
13 your ear there. I have to assume that he may recall advising
14 of that. I certainly can't testify to that factually. You
15 would have to ask Mr. Wilson that. He's going to be a witness
16 later.

17 BY MR. REIS:

18 Q When your examination of the voids and the
19 occurrence of the voids, did it come to your attention that
20 any B&R QA personnel knew of voids in other lifts prior to
21 your discovering them after this process you described you went
22 through after you found the voids in Lift 15?

23 BY MR. FRAZAR:

24 A Mr. Reis, I lost part of your question. I wonder
25 if you could help me.

1 Q Did it appear that any person --

2 After you found the voids in Lift 15 you went out
3 and you started an investigation to find whether there were
4 other voids, did you not?

5 BY WITNESS FRAZAR:

6 A No, sir. That was Lift 8 that we went to after
7 Lift 15.

8 Q Okay. And in the course of your looking for voids,
9 did it come to your attention that any person in Brown & Root
10 Quality Assurance knew of voids before that time?

11 MR. NEWMAN: I'm sorry, Mr. Reis, as a time matter
12 is this after Lift 8?

13 MR. REIS: Before the voids were discovered in
14 Lift 15.

15 BY WITNESS FRAZAR:

16 A Before the voids were discovered in Lift 15?

17 Q Yes. Did it come to your attention that any
18 Brown & Root Quality Assurance personnel knew of voids in other
19 lifts?

20 BY WITNESS FRAZAR:

21 A No, sir. Not to my attention.

22 Q There has been testimony, I believe, in the record
23 that there was a stop-work order on concrete matters before
24 the one in December 1979.

25 Do you know whether that stop-work order was in all

1 instances obeyed?

2 BY WITNESS OPREA:

3 A Is that the stop-work order that took place
4 somewhere around mid-year '79?

5 Q That's right.

6 BY WITNESS OPREA:

7 A Are you saying that during the period of the
8 stop-work, had the stop-work actually been curtailed in toto?

9 Q No. Was it violated by the concrete crews?

10 BY WITNESS OPREA:

11 A In other words, they poured concrete when they
12 should not have.

13 BY WITNESS FRAZAR:

14 A Mr. Reis, I certainly don't know of any case where
15 a stop-work order has been issued and been violated. At least
16 I can't recall one, you know, at this speaking.

17 In thinking back over your question you asked a
18 minute ago, I guess I was concentrating too heavily on the
19 Lift 15 of the containment building.

20 I do recall there being -- and I'm not sure of the
21 timeframe, whether this preceded or postceded the Lift 15 of
22 the containment building, but I do know that we had a situation
23 where there was some lack of consolidation of the concrete in a
24 certain elevation of the fuel-handling building, such that when
25 we removed the forms that it was readily apparent that we had a

1 problem in the fuel-handling building, because this particular
2 slab that was in a horizontal plane was the floor of the fuel-
3 handling pool, but it also from underneath was the ceiling of
4 one of the cubicals for some of the equipment in the lower level
5 of the fuel-handling building.

6 And it was when we removed the forms from under-
7 neath that particular slab that we were able to visually observe
8 the overhead area not to have proper consolidation. And I think
9 that's the report covered in the 55(e) report.

10 And that was detected by inspection.

11 Q Is that the end of your statement, sir, that it
12 was detected by --

13 BY WITNESS FRAZAR:

14 A Inspection.

15 Q -- inspection. Thank you.

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1 JUDGE BECHHOEFER: Let me inquire. Is the stop-work
2 order being referred to one issued by Brown & Root, by Houston,
3 or by NRC?

4 WITNESS FRAZAR: I guess we would have to ask
5 Mr. Reis about that. I'm not sure which one he is referring to.
6 There have been a number of stop-work orders issued over the
7 course of the project.

8 MR. REIS: I believe it was one issued by
9 Brown & Root, and I would direct the panels attention to
10 Staff's Exhibit 32, if they can be shown that, which is I&E
11 Inspection Report 79-14, Allegation No. 9.

12 (Document handed to witness.)

13 MR. REIS: The details of that are recounted on
14 Page 12, which is next to the last page of --

15 JUDGE BECHHOEFER: Hold up for one minute.

16 32?

17 MR. REIS: 32, sir.

18 BY MR. REIS:

19 Q I call your attention further to Staff Exhibit
20 No. 33, which is a reply to this allegation, and 34 I'm told.

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5-1 1 BY MR. REIS:

2 Q Now, let me ask you again, does it appear that
3 there was an instance where a stop work order was not complied
4 with?

5 BY WITNESS FRAZAR:

6 A This particular I&E report identifies a failure to
7 implement the procedures per the release of the stop work by
8 the QA organization.

9 When you asked your question earlier, I guess I'm
10 conditioned then that when somebody fails to follow a stop work
11 order I get the opinion that construction is proceeding to
12 construct the plant with having the proper release from the
13 quality assurance organization, because we're the ones that
14 give the final approval on stop work releases.

15 This is clearly a failure on the part of the
16 Brown & Root site QA manager to follow the procedures for
17 releasing stop work, and that's acknowledged in our response,
18 and I think the corrective action states that the site QA
19 manager was re-instructed in following those procedures.

20 Q Generally, to connect matters together, does
21 Item of Violation A(7) in Staff's Exhibit 46, which is the
22 I&E report, generally deal with concrete construction and
23 concrete placement?

24 BY WITNESS FRAZAR:

25 A Can you give me a page reference?

5-2

1 Q Yes. It's --

2 MR. NEWMAN: Pages 8 and 9?

3 MR. RIES: Yes, Pages 8 and 9.

4 MR. NEWMAN: Of Appendix A.

5 BY MR. REIS:

6 Q Pages 8 and 9 of Appendix A --

7 JUDGE BECHHOEFER: Item 7?

8 BY MR. REIS:

9 Q -- Item 7.

10 What I'm trying to do is connect some things
11 together for the Board, really, that it does deal with concrete
12 placement activities.

13 BY WITNESS FRAZAR:

14 A Without reading all the details of those two pages,
15 it certainly deals with concreting activities, yes, sir.

16 Q Okay, and your reply to that appears in Exhibit 47
17 on Page 24 of your attachment to the letter which is Exhibit 47.

18 MR. NEWMAN: What page was that, Mr. Reis?

19 MR. REIS: 24.

20 BY WITNESS FRAZAR:

21 A Yes, sir. Those Pages 24, 25, 26 and 27 of that
22 document, that Staff Exhibit 47, is our response to that item.

23 BY MR. REIS:

24 Q Going to Page 38 of your testimony, Mr. Oprea --
25 and my purpose in the line of questions I shall pursue is

5-3
1 essentially a matter of tying together the violations and your
2 response to the violations here in the testimony.

3 What I essentially am looking for is essentially
4 what you are addressing here. I don't think it necessarily
5 appears clear in all instances.

6 Looking first at the first few lines on that page,
7 Page 38 of your testimony, and the preceding lines, were you
8 addressing essentially your response to Violations A15 and A18?

9 MR. NEWMAN: Mr. Reis, because of the detailed
10 nature of that question, could you just indicate what lines
11 on Page 38 you're referring to?

12 MR. REIS: Well, actually, it's the first four
13 lines. Actually, it starts on the page before.

14 MR. NEWMAN: That's a long -- is it just the last
15 sentence on Page 37, or should the witness be reading all of
16 Answer 47 to answer your question?

17 MR. REIS: I really don't think -- he could, but I
18 really don't think the question is unfair without it. All I'm
19 trying to do is connect here what specific violations he was
20 attempting to talk about.

21 MR. NEWMAN: I really don't want to disrupt the
22 rhythm of your question, but I simply can't follow it.

23 What particular statement are you directing our
24 attention to?

25 MR. REIS: Well, the observance of work activities

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1 in the field; was this something instituted by HL&P and Brown &
2 Root to remedy some of the surveillance deficiencies set forth
3 in Violation A15 and the auditing deficiency set forth in
4 Violation A19?

5 [REDACTED] MR. NEWMAN: As I read it, that's the sentence
6 that [REDACTED] at the bottom of 37, project QA supervisors,
7 assessed implementation, et cetera, going over to the sentence
8 that ends, and observing work in the field.

9 MR. REIS: That's right.

10 MR. NEWMAN: Thank you.

11 WITNESS OPREA: Shall I answer it? *

12 JUDGE BECHHOEFER: Mr. Reis, let me ask you, did
13 you mean A19 or A18? You just said 19 and earlier you said 18.

14 MR. REIS: A18, I'm sorry. A18, which also deals
15 with audits.

16 BY WITNESS OPREA:

17 A Mr. Reis, the question, per se, not your question
18 but the one that's in my direct testimony, is related to the
19 strengthening of our quality assurance management structure,
20 and that pertains to the organization.

21 This basically is addressed to Show Cause Item 1,
22 the organizational structuring, and in so identifying that
23 organizational structure, as we identified through the Amaral
24 testimony and my testimony, we also identified how we are
25 strengthening the over-all quality assurance program, though

5-5
1 there could be some intertwining aspects of describing the
2 functional parts of the organization, the total QA organization
3 that relate throughout for auditing, for greater site
4 surveillance, for greater opportunity to look at work activities,
5 but specifically that particular item was not addressed to a
6 particular item in the noncompliance area.

7 BY MR. REIS:

8 Q These matters that you do detail in your answers to
9 Questions 47 and 48 and 49 of your testimony do generally -- do
10 they in your view prevent a recurrence of the items of
11 violation, many of the items of violation set forth in the
12 Notice of Violation 79-19?

13 BY WITNESS OPRE:

14 A I don't think there's a guarantee that any one of
15 those violations will never occur again, but what I can say is
16 that the organizational structure as we have it in place today,
17 both for Brown & Root and Houston Lighting & Power Company, as
18 well as a level of manning, as well as the greater level of
19 knowledge and experience through our recruiting efforts, and
20 the fact that there is stronger programmatic direction, manage-
21 ment involvement from HL&P, I think will do a lot to preclude
22 many of these from occurring again.

23 As you well know, on projects as complex as these
24 there will be violations and there will be anomalies that will
25 show up, but I think this program will hold these in check and

1 make sure that we don't get the imbalance of the past to be
2 part of our future.

3 JUDGE BECHHOEFER: Mr. Reis, I notice you're going
4 through a number of papers.

5 Would this be a good time to take a morning break?

6 MR. REIS: Well, let me just finish a couple of
7 question.

8 JUDGE BECHHOEFER: Okay. Fine.

9 MR. REIS: Then maybe we can just finish up this
10 part and take a break.

11 BY MR. REIS:

12 Q Looking particularly at the HL&P changes indicated
13 in Question No. 49, and perhaps I'll put the question before
14 the break and give you an opportunity to spend a little time
15 on it, and if you can make note of some violations, A7, A8,
16 A10, A11 and A13, and the question is, speaking with a relative
17 amount of detail can you tell us how these changes will prevent
18 a -- tend to prevent a recurrence of those violations?

19 JUDGE BECHHOEFER: Do you want him to look over
20 that question before the break?

21 MR. REIS: No. Let's do that after the break,
22 because it's rather a detailed question and I think it will
23 take a little thought.

24 JUDGE BECHHOEFER: Right.

25 MR. REIS: And I don't expect, you know, excruciating

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1 detail in answer to the question, but a generalized answer
 2 dealing with the subject matter of the violation and the
 3 reorganization there indicated.

4 JUDGE BECHHOEFER: All right.

5 We'll take a 15-minute break.

6 (Whereupon, a short recess was taken.)

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1 JUDGE BECHHOEFER: Back on the record.

2 Mr. Reis.

3 BY MR. REIS:

4 Q Mr. Oprea, I asked you a question before the
5 break. Is it necessary to repeat the question, or do
6 you have it in mind?

7 BY WITNESS OPREA:

8 A No, sir, you don't need to repeat it.

9 Q Okay. Can we have your answer, please?

10 BY WITNESS OPREA:

11 A If you recall, earlier I indicated that all
12 the noncompliance items that we were cited for, we addressed
13 under this umbrella of root causes, with the express purpose
14 of looking at the underlying causes.

15 As a result, every corrective action that
16 we have taken and what we indicated to NRC that we would
17 take, and like I said, have taken and are taking, have
18 been under the basic principle of resolving a problem
19 on the basis of root cause.

20 That applies equally to the organization.
21 We looked at the organization to strengthen it so that
22 in every area that pertains to the quality assurance program,
23 both on site, as well as the off-site supportive measures,
24 are supported by a totally upgraded QA organization that
25 has the ability through this strength, through stronger

1 people, through the broader-based expertise that we have,
2 and we will continue to build upon that expertise.

3 We are able to focus in on the procedures,
4 the training, the trends, the nonconformance reports and
5 such in such a manner to prevent the reoccurrence.

6 As I said earlier, you're not going to prevent
7 any reoccurrence of any noncompliance; but I think the
8 magnitude of the past, I feel very strongly, will not
9 be part of our future.

10 BY WITNESS FRAZAR:

11 A. Mr. Reis, excuse me.

12 Q. Yes, sir.

13 BY WITNESS FRAZAR:

14 A. To supplement. Each of the items that you
15 mentioned, A7, A10, 11 and 13, represent areas where we
16 needed to improve the system control procedures, the administrative
17 systems and the execution of the activities under those
18 system controls, once we had made the improvement.

19 Question and Answer 49 in Mr. Oprea's testimony
20 deals, of course, primarily with personnel changes in
21 the HL&P organization.

22 I think tied in to that, of course, there
23 were a lot of changes in the Brown & Root organization.

24 The level of talent and experience that we've
25 brought to the project in those people added in, I think,

1 puts us in a very good position to be able to do those
2 activities relating to preventing recurrence of these
3 types of items in the future.

4 For example, just to pick one, A7, that deals
5 generally with the subject of concrete placement and how
6 you plan the concrete placement, how you execute the plan
7 once you get into the field, and then how you document
8 the results of your efforts after the activities are finished.

9 The quality engineering personnel that we've
10 brought in in both of the organizations certainly have
11 worked diligently to set up good plans and good procedures
12 to control methods of concreting; and we've set up the
13 system of implementation reviews, which goes to the field
14 and monitors the execution of those plans as the work
15 is conducted.

16 Then we have the post-placement meetings in
17 which those kinds of experienced personnel sit to review
18 the results and see are there any further improvements,
19 are there any things that happened during this particular
20 concrete placement that we can use as a launching pad
21 to further improve our systems and control.

22 So I think it's that type of an in-organizational
23 improvement in terms of the people that put us in a good
24 position to be able to execute the program.

25 I think that's consistent with most of the --

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1 if I can, the broad conclusion that was explained to us
2 in the NRC's report, that it wasn't so much the procedures,
3 per se, that were there to control the work even before
4 the show cause, as it was the execution of those procedures
5 through the people.

6 That's where we've really placed a lot of
7 emphasis, although we've placed a lot of emphasis, too,
8 on the improvement of the procedures, because we think
9 the two go hand in hand.

10 Good procedures and then good people to implement
11 those procedures is the secret, I think, to having a successful
12 program.

13 Q Would you make a similar statement in regard
14 to, let's say, All, as to radiography in welding?

15 BY WITNESS FRAZAR:

16 A Yes, sir. We had an absence of procedures
17 in that case in some areas.

18 For example, I think it's been pointed out
19 that in cases where we were taking radiographs and then
20 subsequently processing the film, that we didn't have
21 procedures that were specifically controlling the processing
22 of the film.

23 That resulted in the technicians that were
24 doing the film processing coming out with a product that
25 was unacceptable for the purposes of determining weld

1 quality.

2 Now, in that case, we had to really orient
3 ourselves toward setting up some procedures to control
4 those activities and then bringing in the people to train
5 them in accordance with those procedures, and have them
6 then execute those procedures.

7 Q Even in the absence of procedures, is there
8 something that was basically wrong in the philosophy of
9 the people who were doing things when we look at Item
10 All on the acceptance of radiographs that could not be
11 properly interpreted?

12 I mean, why were radiographs made in that
13 situation?

14 Wasn't there something more fundamental even
15 than procedures?

16 BY WITNESS FRAZAR:

17 A I think the training of personnel was certainly
18 an item that had to be addressed.

19 The philosophy -- I'm groping with the word
20 "philosophy" that you've used a little bit. I don't think
21 of inspectors as being too philosophical.

22 But I certainly think that those people had
23 to understand what the purpose of their job function was,
24 and I think to the extent that we had not provided clearer
25 procedures and that we had not spent enough time in training

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1 them in what those procedures meant and how those procedures
2 related to getting acceptable results from their performance,
3 if that's an acceptable working definition of philosophy
4 in the question, that I think yes, there was a problem
5 there of that nature.

6 Radiography, as a particular example, is a
7 little bit difficult one to discuss, because I'm of the
8 opinion from a technical standpoint that you can review
9 radiographs five times with five different interpreters
10 and probably get at least four different readings on the
11 acceptability of a particular radiograph, because it does
12 leave room for an interpretation in terms of the acceptance
13 criteria that are in the codes and standards.

14 As you know, in response to the show-cause
15 order, particularly Item All, we launched a complete program
16 to go back and re-examine all the radiographs that had
17 been taken up to that point on the project; and when we
18 performed that re-examination, we found that indeed there
19 were quite a number of radiographs that had been taken
20 that were acceptable from a film quality standpoint, but
21 when re-read by someone who had been freshly trained in
22 how to interpret the film, that we got different results.

23 We got cases where there were radiographs
24 that had been accepted before, that now under this re-
25 reading were determined to have rejectable indications

1 under the code acceptance criteria.

2 So it's that kind of a process that we went
3 through to completely re-examine all the radiography work.

4 Q In addition -- Are you doing anything in
5 addition to -- besides training people in procedures and
6 how to follow procedures, to retrain their attitudes
7 so that, as an example, if you get a radiograph that is
8 fogged to the extent that it could not be read, that that
9 radiograph would be -- that they would just know there
10 is something wrong there, that they are supposed to interpret
11 a radiograph?

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1 BY WITNESS FRAZAR:

2 A Yes. In my definition, Mr. Reis, that is
3 procedural training. The procedures have to lay out how
4 you determine acceptable film quality, for example.

5 A penetrometer is a little device that's placed
6 on the film that gives you a degree of resolution.

7 It shows you the sensitivity of that particular
8 radiograph to pick up any relevant indication that might
9 be in the weld.

10 If that penetrometer is not observed by the
11 person interpreting the film to see if the film is really
12 sensitive to any problems that might be in the weld, then
13 he's not very knowledgeable in the procedures for radiography.

14 That kind of a philosophy that goes along
15 with paying attention to not only are you looking at the
16 particular part of the radiograph where the weld is, but
17 look at the other things that relate to whether or not
18 you've actually got a good picture of the weld.

19 Is it showing you anything? Are there any
20 indications that are rejectable under the code acceptance
21 criteria?

22 If that's what you mean by philosophy, yes,
23 sir, we had some problems in that area, because we did
24 have films that had been processed without procedures
25 for processing, and those films in some cases were fogged,

1 and the resolution, the degree of resolution that was
2 needed to properly accept the radiograph was simply not
3 there.

4 That pointed us back to a more base problem,
5 which is the people and their understanding of what they're
6 doing.

7 BY WITNESS OPREA:

8 A I think, Mr. Reis, a real important ingredient,
9 also, when you talk about attitudes, the attitudes of
10 people at the lower ranks are a direct infusion of what
11 management is willing to tolerate.

12 I think with the more stringent position,
13 more intensified position on the part of both Brown &
14 Root and HL&P management, about assuring these these people --
15 and when I say "these," I'm not saying that in sort of
16 a negative sense, but the people out there doing the work,
17 and also those that are doing the inspection work, indeed
18 have to perform to their basic fundamental requirement.

19 Therefore, we are not going to take anything
20 secondary to that particular primary effort.

21 I think the attitudinal thing is a direct
22 result of what you'll see from the top down, and we intend
23 to keep the pressure on from the top, and anybody in between
24 the bottom and the top to try to serve as a filtering
25 device or an obscuring device, will certainly have to

1 meet with the wrath of management.

2 JUDGE BECHHOEFER: Mr. Frazar, I have one
3 question.

4 Would there be radiographs where -- If you
5 found fogging or evidence of chemical contamination on
6 it, would there be radiographs where that would be the
7 case in which it would not be acceptable under any interpretation?

8 I think you mentioned that radiographs are
9 subject to interpretation, but could there be chemical
10 contamination or fogging or processing defects of various
11 sorts which would make the radiograph unacceptable under
12 any proper interpretive standards?

13 BY WITNESS FRAZAR:

14 A Yes, sir, Judge Bechhoefer, and I'm glad you
15 asked the question, because I probably need to clarify
16 that when a film interpreter sits down to interpret a
17 radiograph, the first thing that he has to do is to determine
18 whether or not the film that he's looking at is worthy
19 of interpretation.

20 In other words, he has to look for things
21 like the quality of film, how it was processed, is there
22 fogging, is there chemical contamination, et cetera.

23 That will show up in the film quality.

24 Then after he has determined that yes, he
25 has a good film in his possession that he's looking at

1 on the viewing screen, then he goes to the level of determining
2 on the part of the film that's dealing with the welding
3 question.

4 Then he has to go to the level of interpreting
5 that particular weld indication and whether or not the
6 things shown in that particular radiograph are acceptable
7 under the code acceptance criteria, such as porosity or
8 cracks or lack of fusion or any of those types of indications
9 that have rejection criteria, acceptance criteria under
10 the code.

11 So it's actually a two-step process, determining
12 the validity of the film and then interpreting the indications
13 on the film as to whether or not they meet the code.

14 To answer your question directly, fogging
15 and chemical contamination and things like that that occur
16 or can occur in the processing of the film render the
17 film quality, or can render the film quality such that
18 there's no need to even interpret it.

19 JUDGE BECHHOEFER: Right. Would that be the
20 case in the allegations, at least, which appear in Violation
21 11-A, which appears on page 11 of Staff Exhibit 46, 11
22 of Appendix A?

23 What is referred to as -- well, 11-A in the
24 allegation paragraph, which is the second paragraph of A.

25 WITNESS FRAZAR: What was your question,

1 Judge Bechhoefer?

2 JUDGE BECHHOEFER: What was alleged there, would that
3 fall under the first category that you described?

4 WITNESS FRAZAR: Yes, sir, it would. Those
5 would be determinations to be made before you actually
6 went to the level of interpreting the film.

7 JUDGE BECHHOEFER: Right. Thank you.

8 WITNESS FRAZAR: Yes, sir.

9 BY MR. REIS:

10 Q To continue with that, looking at 11-B, that
11 would be the second level.

12 If you go down and look at the second paragraph
13 in Allegation 11-B, the second level of what you've talked
14 about?

15 BY WITNESS FRAZAR:

16 A That would be the second example, yes, sir.

17 Q Now, previously there was testimony that you
18 hired a Mr. Geiger for the -- to head QA for the South
19 Texas Project.

20 Who will Mr. Geiger report to, Mr. Frazar,
21 or directly to you, Mr. Oprea?

22 BY WITNESS OPREA:

23 A Let me explain what I attempted to explain
24 the other day, Mr. Reis, relative to when he reports on
25 board and the fact that certainly we need to have a smooth

1 transition between his full assumption of those responsibilities
2 and the release of Mr. Frazar from those.

3 I anticipate that Mr. Frazar will be on board
4 with him four to eight weeks, depending upon the length
5 of time necessary for all bases to be covered and Mr. Geiger
6 to feel comfortable once Mr. Frazar returns.

7 I will bring Mr. Frazar back to corporate
8 headquarters as corporate QA manager for an interim period,
9 and that was for the express purpose to maintain the continuity
10 necessary between Geiger and myself, as well as other
11 features of our quality assurance program that are not
12 directly related to the South Texas Project.

13 Then at some appropriate point, once we get
14 these various things put together, we will give Mr. Frazar
15 another assignment.

16 We've been working on that, not from the standpoint
17 to make it look like a punitive thing and it's not; mainly
18 because this young man needs some additional weathering
19 in other areas that pertain to our business.

20 We cover many frontiers other than just nuclear.
21 We feel it's an opportunity now with what experience that
22 he has received, not only in his eight years or so in
23 quality assurance, but through the intensive type of activity
24 he has been involved in the last 18 months, that now we
25 can apply that in other measures and broaden his base,

1 and put him through another test.

2 So that basically is our position at this
3 point.

4 BY WITNESS FRAZAR:

5 A I might add, Mr. Reis, that the preliminary
6 discussions that I've been having about future assignments
7 involve both nuclear and non-nuclear matters, and we've
8 not made any decisions in that regard at this point.

9 Q Let me go back to your reply, Mr. Oprea, and
10 see whether I understand it fully.

11 Mr. Frazar will remain in Bay City for the
12 four to eight weeks you talked about to bring Mr. Geiger
13 on board and bring him on speed?

14 BY WITNESS OPREA:

15 A That's correct.

16 Q Then Mr. Frazar is looked to to move to Houston,
17 and at that point Mr. Geiger will still report through
18 Mr. Frazar to you?

19 BY WITNESS OPREA:

20 A It's probably going to be what I would call
21 a bifurcated chain. Mr. Geiger will have contact with
22 my office as well, but there will be a number of things
23 that will occur that Mr. Geiger will want to get some
24 feedback on, and I want to keep Mr. Frazar in the loop
25 until such time as we can virtually say that Mr. Geiger

1 has a full comfortable feel, even after Mr. Frazar leaves
2 the site.

3 As I indicated, I have other quality assurance
4 activities, other than just the South Texas Project.

5 For instance, the operations QA area. We've
6 been working on that and we want to build that thing up.

7 We're looking at a potential candidate for that
8 job. With the type of training that we want this individual
9 to go through over the next two years, I need Mr. Frazar
10 to help me in that area, as well as some other areas.

11 I want him to help me evaluate things that pertain
12 to our fossil project, as well.

13 So he has a broad-based experience and knowledge
14 in quality assurance that I can apply, hopefully, in an
15 effective beneficial way as a prelude to him being reassigned
16 totally out of the quality assurance arena.

17 JUDGE BECHHOEFER: Do I understand you intend
18 something other than QA for Mr. Frazar at some point?

19 WITNESS OPREA: Yes, sir. Yes, sir.

20 He will still have, not a direct relationship,
21 but if he stays in the nuclear and non-nuclear arena,
22 there will be things that have a quality overtone to it.

23 So in essence from the standpoint, an over-
24 all quality program doesn't necessarily mean that you
25 have to be directly involved in quality assurance.

1 JUDGE BECHHOEFER: Right.

2 BY MR. REIS:

3 Q Now, Mr. Geiger, as the head of the South
4 Texas quality assurance, will be assigned to the site
5 permanently?

6 BY WITNESS OPREA:

7 A Yes, sir.

8 Q Okay. You talk in your original testimony
9 about Mr. Geiger coming aboard, that Mr. Frazar will have --
10 and I believe your words were "a coordinating role."

11 What did you mean by the words "coordinating
12 role"?

13 BY WITNESS OPREA:

14 A Well, I meant that in terms of what I have
15 attempted to explain just a few minutes ago, to serve
16 in a way of aiding Mr. Geiger, even after Mr. Frazar left
17 the site, to answer questions that Mr. Frazar is in a
18 better position to answer than I am.

19 Q Okay. What qualifications are you looking
20 for in a corporate QA manager, your permanent one?

21 BY WITNESS OPREA:

22 A Well, I would certainly like to have an individual
23 that had the 15 to 20 years experience in quality assurance,
24 of which there has been a minimum of 5 to 10 years in
25 the nuclear end of it, as well as exposure to other aspects

1 of quality assurance, recognizing that our Quality Assurance
2 Department, per se, covers those things that I mentioned
3 earlier, nuclear as well as non-nuclear activities.

4 So need to have the proper spread, but the
5 proper experience levels on the nuclear end of it to give
6 the proper leadership and direction.

7 I would say that the experience that individual
8 would have would probably be more in the direction of
9 nuclear than in the non-nuclear area.

10 But again conceivably -- let me just throw
11 this out, and I'm not saying this is a truism, but it
12 could be an aspect.

13 An individual like Mr. Geiger could very aptly
14 perhaps in a year or two be an individual that could fill
15 that spot.

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1 Q You talk on page 47 of your testimony on line
2 12 of instilling positive attitudes, and I take it that's
3 positive attitudes towards quality and quality assurance
4 that you're talking about there?

5 BY WITNESS OPREA:

6 A Yes, indeed.

7 Q How do you test for -- and you've said it's
8 necessary for all levels of the quality assurance staff
9 and all levels generally to have the right attitudes in
10 that regard, didn't you?

11 BY WITNESS OPREA:

12 A Yes, sir, all levels of an organization that
13 have anything to do with building.

14 Q How do you test the middle levels of management
15 to assure that they will have this positive attitude?

16 What checks will you put on yourself to assure
17 that you are getting people in the middle slots that are
18 not cavalier about quality and quality assurance?

19 BY WITNESS OPREA:

20 A Well, first, any individual -- let's just
21 talk about nuclear programs. That's where the emphasis
22 is.

23 Q Yes.

24 BY WITNESS OPREA:

25 A Any individual that we bring on board to work

-2

1 in the arena of nuclear, whether they come from outside
2 the company or they are reassigned on a matrix basis to
3 the nuclear project, is given basic quality assurance
4 orientation and training through Mr. Ulrey's office to
5 make sure they all understand the significance of a quality
6 assurance program and what the basic ingredients are and
7 what the individual response has to be without equivocation
8 to supporting that program.

9 Assuming that the individual came on board
10 with any prior experience, he gets or she gets that exposure
11 in training and we answer the questions and put them through
12 a series of retraining or orientation courses.

13 Now, when they are subjected to their respective
14 jobs, of course, we watch their performance in regard
15 to how well they do in upholding those responsibilities
16 that relate to embracing the quality assurance aspects
17 of the project, and they are graded accordingly.

18 If we see any problems, of course, we go through
19 a retraining; and, of course, if they appear to be an
20 individual problem that continually appears to be a stirring
21 rod in the activities that relate to the project and cause
22 disruptions because of an attitude or perhaps a personality
23 conflict, the individual would be taken out.

24 This idea, as I -- or philosophy, in our sense
25 of philosophy and policy is infused throughout the organization,

1 and I demand it of my managers. I demand it of the officers
2 that respond up through me; and even those that are in
3 other areas that matrixed their people in, that these
4 are musts to the program and they have to be fully responded
5 to.

6 We have other officers that are involved in
7 quality assurance support. I'm talking about purchasing,
8 accounting, people that are matrixed in from Mr. Turner's
9 area, that understand the significance of supporting the
10 QA program, per se, and their people understand it as
11 well.

12 We have very little tolerance level for people
13 that don't perform in supporting those aspects.

14 BY WITNESS FRAZAR:

15 A We're not reticent, either, Mr. Reis, in terms
16 of the quality assurance organization, and if there are
17 people that we view have less than the attitudes that
18 we think they should have at any level of the organization,
19 that certainly is identified to both Mr. Goldberg, Mr. Barker
20 and Mr. Oprea.

21 Q We've talked before in this examination about
22 particular middle management people, who at least gave
23 the perception to their employees in QA that they were
24 not -- at least it came through to the employees that
25 they were not fully dedicated to QA matters.

-4 1 An example is, one, after the NRC is through
2 with this investigation, we'll have to get rid of some
3 people; or we know who goes to the NRC. That sort of
4 thing.

5 What are you doing in particular to prevent --
6 I don't know whether it's middle management or lower management --
7 from creating that sort of perception among their employees?

8 BY WITNESS OPREA:

9 A Well, it's what we have done and are continuing
10 to do as a result of those incidents being brought to
11 our attention.

12 What we have done is through direct management
13 involvement, and I'm talking through Brown & Root management,
14 as well as myself, making our presence more obvious, being
15 there on site, talk to QA/QC people, construction people,
16 and telling them through direct one-on-one type of meetings,
17 as well as in our group meetings -- I know Brown & Root
18 has had a period of these or a number of these, relative
19 to the interrelationship between construction and quality
20 assurance and what their responsibilities are, as well
21 as the supervisors.

22 We've done it with our supervisors and I know
23 B&R has done it with theirs, that they have to be the
24 driving force to instill in everybody the main ingredient
25 of doing it right the first time, which means full embracement

1 of the quality assurance criteria per Appendix B.

2 What we do is continue to bring that to their
3 attention, tell them that we have no tolerance for anybody
4 who is not willing to support that, that we're not going
5 to allow a mediocre type of attitude or a cavalier attitude
6 to prevail, and these people are talked to initially about
7 the need to support a very strong program, to make that
8 strong program obvious in the minds of those people that
9 work for them, to make sure they don't tolerate the same
10 attitude on their part; and if any supervisor or other
11 level of middle management is guilty of putting a negative
12 aspect on the performance of people from a qualitative
13 standpoint, we'll take action, and we have taken action.

14 It's the management involvement and a pervasive
15 position that we have to insist that they will embrace
16 it, they will support it and there will be no other route
17 that we'll tolerate.

18 That is what I think, Mr. Reis, is aiding
19 a lot in the turnaround of the attitude.

20 As I have said several times, I have spent
21 a lot of my time on site over the last year, 15 to 18
22 months, and I know some of my counterparts at Brown &
23 Root have done likewise.

24 I have the opportunity to meet jointly with
25 members of the B&R and HL&P team, and I meet individualistically

1 on an organizational standpoint with our QA people, as
2 well as Brown & Root people.

3 I meet -- and I'm talking about several people
4 organizationally.

5 I meet individually one-on-one with their
6 people and our people, as well as with construction and
7 engineering people.

8 I talk to them on site when they are out there
9 doing their thing, hopefully not interfering with doing
10 their thing.

11 I have found out that there has been a definite
12 decided turnaround and people are appreciative of the
13 fact that we have executive management involved in their
14 thing and are interested.

15 As I indicated in earlier testimony, the perception
16 people had was that we were not involved because our physical
17 presence didn't indicate that; but we were.

18 We were involved perhaps back in our respective
19 offices pushing buttons and making phone calls and doing
20 things to instill through our different levels of management
21 that we darn well expect quality assurance aspects of
22 this project to be upheld.

23 Q Let me ask you this, and I'm not sure it's
24 practical. Have you examined whether you can engage in
25 attitudinal testing on a periodic basis of the people

1 in middle management involved in ensuring that quality --

2 BY WITNESS OPREA:

3 A I know that Brown & Root has done this. They
4 periodically bring their consultants in; and, of course,
5 I guess what we have done through the consultants that
6 we have used as part of our staff, we have used them also
7 as not as part of staff to help us fill the gap that we
8 have until we can get permanent employees on board, but
9 also to give the assessments.

10 For instance, Mr. Zwissler's involvement,
11 as well as other people from MAC, I have asked them periodically
12 in regard to what they say, from performance of people.

13 I even ask about Mr. Frazar in regard to how
14 they perceive his performance, attitudinally as well as
15 from an over-all professional basis, his involvement with
16 his counterparts.

17 I do this relative to the people that are
18 at lower levels in the management chain. We have used
19 Bechtel to do the same thing when we bring them in, and
20 we'll continue to do this.

21 Now, there might be certain cases where we
22 have to have a special effort separate and distinct from
23 what I spoke of where we might want to run a special survey
24 through some other third party, just to go out and talk
25 to people out there and get a feel as to whether or not

7-8 1 we've got a makings of a problem.

2 BY WITNESS FRAZAR:

3 A Mr. Reis, we are currently employing and have
4 been for some time some people through the Management
5 Analysis Company who work in the organizational development
6 area and who have an applied psychology background, and
7 these people are assisting me and the Brown & Root project
8 QA manager and Mr. Vurpillat in identifying places where
9 there might be interpersonal conflicts between various
10 people, or where there might be issues within a group,
11 a perception that a group has, to try to sort those things
12 out and to do some team-building sessions, to solidify
13 a more cooperative and responsive working relationship
14 between the organizations at the site.

15 I think that has been a very productive effort,
16 and we are continuing that.

17 We started to do that within the HL&P organization
18 and within the Brown & Root organization, and now having
19 done some work within the two organizations, now we're
20 going to the inter-group issues and we're starting to
21 do it with the two groups together.

22 That's working out quite well, I think.

23 BY WITNESS OPREA:

24 A I might --

25 Q Are they -- go ahead.

7-9 1 BY WITNESS OPREA:

2 A Excuse me, Mr. Reis.

3 Q I had a slight followup question. I don't
4 know whether you want to continue or not.

5 BY WITNESS OPREA:

6 A I just wanted to mention that within the last
7 few days in talks with Mr. Rice at Brown & Root, he indicated
8 that in all probability he will bring in some independent
9 third party that apparently has pretty good rapport with
10 craft type people and lay type, I guess you'd call them,
11 as well as the journeyman type and the supervisors, with
12 the idea of bringing them on board and letting them walk
13 the scene out there completely unconstrained and talk
14 to people in the construction arm of it and QA arm and
15 just to see whether or not we have had major improvement
16 or if we've got any spotty cases or isolated cases of
17 problems out there.

18 This is one of the techniques that would be
19 pursued.

20 Q You talked about team building, Mr. Frazar,
21 and the applied psychologists.

22 Are they also looking at the individual to
23 see the individual attitudes, whether there is individual
24 bad actors that just cannot have a proper attitude or
25 cannot be trusted in this sort of a position?

7-10
1 BY WITNESS FRAZAR:

2 A Now as a going in type of plan to focus on
3 that sort of thing.

4 However, their research -- I call them research
5 activities. It's information-gathering, I guess you could
6 say, that they do in preparation for identifying the issues
7 that exist between the organizations or within the organizations,
8 certainly in asking questions of people, interviewing
9 people and so forth, attitudes come across pretty squarely
10 with these fellows.

11 These fellows are not insensitive to how human
12 behavior affects a job, and they've identified some problems
13 in those areas and we've taken steps to deal with those
14 problems.

15 In some cases we've changed some responsibilities
16 of the people. In some cases we've given people counseling
17 or additional training or whatever.

18 In some cases we've asked that people be taken
19 off the job.
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1 BY MR. REIS:

2 Q Do you think that in your concerns for any
3 individuals who occupied any slots in the QA/QC organization
4 that you -- I strike the question. Strike the question.

5 So to you, Mr. Briskin, just a few questions.
6 You spoke yesterday about a Level 3 schedule on progress. Was
7 that implemented, or just developed?

8 BY WITNESS BRISKIN:

9 A No. That schedule has been implemented, and, in
10 fact, was the jumping-off place to develop the Level 4 schedule.

11 Q Now, you essentially were responsible for the
12 preparation to the attachment to Staff Exhibit 47, which is
13 answer to the Notice of Violation?

14 BY WITNESS BRISKIN:

15 A No, not the Notice of Violation.

16 Q Okay. Who was responsible for the -- Was there
17 one person --

18 BY WITNESS BRISKIN:

19 A I believe that was Mr. Frazar.

20 BY WITNESS FRAZAR:

21 A The Response to the Notice of Violation, the
22 May 23rd, 1980 response?

23 Q Yes.

24 BY WITNESS FRAZAR:

25 A I was the chairman of the Task Force that worked

1 in developing the Response to that item.

2 There was quite a large organization of people who
3 worked in that effort, from the end of April to the 23rd of
4 May. Twenty-five days is not a very long time to have to
5 respond to several hundred pages of information that has been
6 furnished.

7 Q Right. And that effort was done conscientiously
8 and honestly, to the best of your knowledge?

9 BY WITNESS FRAZAR:

10 A Yes, sir. There were many long hours spent in
11 putting together that response.

12 Q Now, you spoke, Mr. Briskin, about the -- and I
13 call your attention to Page 68 of your testimony.

14 BY WITNESS BRISKIN:

15 A Yes, sir.

16 Q You spoke about the expansion of project site
17 engineering. During that time was there a reduction of
18 engineering in the Houston office of Houston Lighting & Power?

19 BY WITNESS BRISKIN:

20 A No, sir.

21 Q There was none. Okay. Thank you.

22 BY WITNESS BRISKIN:

23 A Well, let me clarify that there was no intended
24 reduction. There may have been reduction through normal
25 attrition.

1 Q Yes.

2 Now, on Page 72 of your testimony on Lines 21
3 through 23, is that computer printout that you talk of there
4 available each morning?

5 BY WITNESS BRISKIN:

6 A We have clarified that in our commitment that it's
7 not always there in the morning. Sometimes it is closer to
8 noon or just after noon, but it is available each day.

9 Q Okay.

10 BY WITNESS BRISKIN:

11 A The information is available on the computers
12 through use of the CRT's, but it takes a little while to get
13 the printing done.

14 Q Mr. Frazar, turning to your testimony on Page 79.
15 You paragraph labeled "fifth" on that page, has preplacement
16 planning been fully performed in all instances since this
17 time?

18 BY WITNESS FRAZAR:

19 A Mr. Reis, I really can't answer your question.
20 I have not personally attended all of the preplacement planning
21 sessions.

22 I know our procedures prescribed methods for
23 preplanning, and I know that our people, at least on the safety-
24 related placements that we witnessed a hundred percent of the
25 safety-related placements that are made on the job, and it's

1 certainly our intent to have a preplacement meeting occur
2 right before the placement to go through the process of
3 identifying whether or not everything is up to snuff as far as
4 the upcoming placement goes, whether they have the right amount
5 of equipment, people, and that sort of thing to get the job
6 done.

7 Q The next number, No. 6, can you tell us, give us
8 some more detail on those procedures that you talk about?

9 What are they?

10 BY WITNESS FRAZAR:

11 A Mr. Reis, our concrete procedure on the job wa
12 revised -- This is talking about the nine-point program, which
13 was developed right after the December 28th meeting in the
14 Regional Office, in which we were given some early feedback
15 from the Commission relative to the process of the 79-19
16 inspection.

17 I think the issues that were involved at that
18 point were that placement might be readied for concrete to be
19 placed into the forms, and then inclement weather may arise, or
20 something of that nature, and there was no clear provisions in
21 the procedures for the criteria of when a placement had to be
22 reinspected to verify that it was still okay to go ahead and
23 put concrete in the form.

24 We revised the procedure at that point to include
25 those type of criteria, and that is what that paragraph six

1 referenced. Since then there has, of course, been further
2 revisions to the concreting procedures on the job, and response
3 to the show cause item.

4 Q On Page 100 of your testimony, Mr. Frazar, at
5 line -- Well, the sentence starts on Line 38 and continues to
6 Line 45. My question is: You use the word "adequately" at
7 the end of that sentence.

8 Do you mean to imply there that there are areas
9 where it is not functioning properly?

10 BY WITNESS FRAZAR:

11 A No, sir. I don't mean to imply that. I mean
12 to specifically state there that we have established a non-
13 conformance control system, which is described in a series of
14 procedures, and that our people participate or perform
15 implementation reviews of those procedures to insure that those
16 procedures are being followed.

17 Now, there may be cases from time to time where
18 an individual violates the procedure, or doesn't follow the
19 procedure accidentally, or because he doesn't understand the
20 procedure, and that's the purpose of those reviews, is to make
21 sure that if there are occasional failures to follow the specific
22 language of the procedure that that's picked up and factored
23 back into either training or procedure revisions, as the case
24 may be, to clarify whatever is needed to control the attitude,
25 and make sure that non-conformances are documented and resolved.

1 Q Sometimes when you use the word "adequately" you
2 mean passively. In other words, just getting by. Is that what
3 you are saying?

4 BY WITNESS FRAZAR:

5 A No, sir. I am not meaning that at all.

6 Q Okay. Going to the next Page 101, and Lines 46,
7 47, you use the -- The sentence is "These data were not
8 normalized."

9 That is rather a technical term. Can you tell
10 us, clarify for the record what "normalized" means?

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1 BY WITNESS FRAZAR:

2 A Let me read it.

3 Q Sure.

4 BY WITNESS FRAZAR:

5 A Yes, sir, normalized in that context and in
6 general context that I use it means that you have collected
7 some data, which is a number of events, let's say, and that
8 you simply look at the raw data, the number of events, and try
9 to draw some judgment based on no real processing of that
10 information into categories.

11 And example I might give, let's take a hypothetical
12 situation that we had 20 craft people working on concrete place-
13 ment on the job. And in a one-month period of time those 20
14 craft people created ten non-conformance reports. You need to
15 take into consideration when you are looking for trends:
16 whether or not ten non-conformance reports for 20 craft people
17 is a significant trend in terms of the performance of those
18 people.

19 For example, if you had 200 people performing work
20 in concrete placement and they created ten non-conformance
21 reports, depending on the subject matter in the individual
22 non-conformance reports, that may not be a significant trend
23 in terms of the performance. It may be a normal rate of non-
24 conformances that you would expect from a large group of
25 craft people doing work in a given area of the project.

1 On the other hand, ten in 200 might be significant
2 if you consider the information contained in each one of them,
3 because if they are all ten the same mistake, and it's a serious
4 mistake then that's a significant trend.

5 So that's what I meant by saying the data was not
6 normalized. It was really just the numbers of non-conformances
7 in some areas of the plant, and that sort of thing, and they
8 looked at them and tried to make some judgments based on that.
9 There's not really a lot of analysis done of the information.

10 Q In other words, in trend analysis you have to look
11 not just at numbers but at frequency and the nature of the
12 items that you are examining?

13 BY WITNESS FRAZAR:

14 A Yes, sir. I agree with that. I think normal plant
15 safety, they do the same sort of thing, come up with a
16 frequency and severity index to try to figure out if there is
17 a significant trend.

18 Q Are there any areas in which the new trending
19 analysis that you have talked about is not giving you information
20 you need to lessen a repetition of problem?

21 BY WITNESS FRAZAR:

22 A You know, that is kind of a difficult question to
23 answer, Mr. Reis, because it presumes that I know something that
24 I don't know.

25 Q Is there any area where you feel your current

1 trending is failing, not giving proper information?

2 BY WITNESS FRAZAR:

3 A I don't think there is. I have reviewed the
4 quarterly trend reports, and the monthly data analysis reports,
5 and as a matter of fact I had some meetings with the people who
6 were doing that activity within the past few months to ask them
7 to reformat some of the information that they were providing in
8 the report so that it would be more understandable by those of
9 use in management who are not so close to the situation.

10 And they did that and that, and it improved the
11 readability and the usefulness of that report in taking the
12 proper actions to correct the trends, make sure that they were
13 thoroughly investigated and if they were found, that really
14 in fact there was an adverse trend, to get the necessary
15 corrective actions taken, as well as to place somewhat of a
16 second guessing game. That's one of the functions that
17 management does from time to time is to review the efforts of
18 the organization and see if you really think they hit the mark
19 in terms of their activity.

20 But as far as the production of the data, and the
21 techniques used to analyze and normalize, if you will, the
22 data to report that in a format that is useful to management, I
23 think it's showing us some pretty good results now.

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9-1 1 Q Are there any examples you can give us where --
2 you've talked about some pretty good results, and that's in
3 the QA area where you've now been able to spot problems that
4 you wouldn't have been able to spot before because of this?

5 BY WITNESS FRAZAR:

6 A Yes, sir, there are, and I'm sorry but -- I have
7 the details here, if they haven't already been taken to
8 San Antonio.

9 I have some examples of trend investigation requests
10 that were performed, or were prepared as a result of the trend
11 analysis.

12 Q Well, I'll tell you, instead of taking the time now,
13 can you -- I'm quite sure you're still going to be on the stand
14 on Monday in San Antonio, and could you give it to us at the
15 beginning of the proceeding?

16 BY WITNESS FRAZAR:

17 A Yes, sir, I can do that.

18 Q Thank you. Has the B&R audit staff training been
19 completed? And I refer to Page 113, and No. 2 at the top, (2).
20 It says both audit staffs have been upgraded through increased
21 manpower and training.

22 Has that training been completed for the B&R staff?

23 BY WITNESS FRAZAR:

24 A Mr. Reis, you never complete training. That's an
25 ongoing process. We have a refresher training program that

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1 takes up these matters periodically.

2 However, I believe our commitments to provide
3 additional training to the B&R audit staff have been completed,
4 and as a matter of fact, I've had a verbal report recently
5 that Mr. Shannon Phillips has indicated that he is ready to
6 close our commitment relative to increased training of the
7 Brown & Root audit staff.

8 Q How about the site surveillance staff, I think it's
9 of Brown & Root? Has that -- do they now have a permanent
10 staff, or are they still just temporarily -- temporary people
11 assigned to that staff, do you know?

12 BY WITNESS FRAZAR:

13 A They have had permanent Brown & Root employees in
14 that organization all along. I think there was a question
15 recently as to whether or not that level of staffing was
16 adequate for the functions that they were supposed to perform,
17 and I think you asked me some questions in Bay City or thereabouts
18 in the first week of the hearings relative to that, and I
19 believe that I indicated in answer to that question that I had
20 spoken directly with Mr. Vurpillat about addressing the problem
21 of the staffing in that surveillance group, and I don't have a
22 today reading as to what actions have been taken to address
23 that.

24 Q Did the NRC bring that matter up to you in an
25 inspection report, 81-12, which is Staff Exhibit No. 96?

9-3 1 BY WITNESS FRAZAR:

2 A What page?

3 Q I call your attention to Page 3, particularly, of
4 the report there.

5 BY WITNESS FRAZAR:

6 A Yes. That reference on Page 3, in the two major
7 paragraphs toward the bottom of the page, refers to Mr. Shannon
8 Phillips' reviews that he conducted at the jobsite of the
9 staffing of that surveillance organization.

10 Q Thank you. Going to a different subject, and
11 looking back in time, do you think that HL&P in the past,
12 speaking in the past, the pre-1990 period, did HL&P pay enough
13 attention to Brown & Root quality assurance supervisors' support
14 of the quality assurance staff, of their quality assurance staff?

15 BY WITNESS FRAZAR:

16 A Mr. Reis, in retrospect, I'd have to say that we
17 apparently did not. I think one of the root causes says that,
18 management involvement, not being knowledgeable of what level
19 of support is being given to QC inspectors or to quality
20 engineers, for that matter, or whatever, and more importantly,
21 the manner in which that support is being given.

22 I am familiar with an individual who was in the
23 supervision ranks of Brown & Root quality assurance that was a
24 very competent, qualified quality assurance professional, knew
25 very well what the requirements were, knew how to establish

9-4 1 systems to meet those requirements, but happened to have a
2 personality and a technique of supervision that was somewhat
3 abrasive. I even found it abrasive at times myself when I
4 interfaced with this individual.

5 And I think that had I paid closer attention to
6 that sort of thing and the effect it possibly was having on
7 the Brown & Root quality assurance staff in terms of their
8 motivation, and so forth, that I might have taken a little
9 bit swifter and firmer action to make some changes.

10 MR. REIS: Thank you.

11 That's all I have of this panel at this time.

12 JUDGE BECHHOEFER: We'll take a short break before
13 we begin the Board's questioning.

14 (A short recess was taken.)

15 JUDGE BECHHOEFER: Back on the record.

16 BOARD EXAMINATION

17 BY JUDGE HILL:

18 Q Mr. Turner, I want to ask some questions that go back
19 to the period in which you were just starting on this project,
20 and I want to establish what the date is, and so my question to
21 either of you now is during what period were you determining or
22 selecting a contractor for the construction, or the architect
23 engineer and construction of the South Texas Project?

24 BY WITNESS OPREA:

25 A From about mid-year of '72 through sometime in the

9-5

1 early part of '73.

2 Q Were both of you involved in that process?

3 BY WITNESS OPREA:

4 A No. Only I was, as well as some other people that
5 I had brought in from other parts of our company.

6 Q Mr. Turner, you were not involved in that?

7 BY WITNESS TURNER:

8 A No, sir.

9 Q This now is specifically in the selection process.

10 BY WITNESS TURNER:

11 A Yes, sir, I understand the question. I was not
12 involved in the selection of Brown & Root and the contractor.

13 Q All right. Well, then, my questions will be
14 directed to you, Mr. Oprea.

15 Can you name the various organizations that were
16 considered for that job?

17 BY WITNESS OPREA:

18 A Yes, sir. We initially looked at, if I recall, a
19 list of between nine to ten, maybe twelve, A&E contractors,
20 and narrowed that down to four, and the four that we narrowed
21 it down to, if I recall, was Stone & Webster, EBASCO, Bechtel
22 and Brown & Root.

23 I could go further and tell you how we went about
24 our selection.

25 Q That's my next question. My next question is did

9-6 1 you at that point consider separating the AE function from the
2 contracting, from the construction function?

3 BY WITNESS OPREA:

4 A No, sir, we didn't, and the reason for that is
5 that we in the past had not done that and plus a good share of
6 industry had pursued that route, an individual entity for the
7 engineering and for the construction, and at that point in time
8 we just felt that under the circumstances that prevailed at the
9 time, plus the experience we had through using that type of an
10 approach for our other power plants, that would be the best
11 approach and that was the approach we took.

12 Q All right. Then you didn't consider splitting it.
13 Then the next thing I would like to hear is the criteria that
14 you were utilizing in making the selection.

15 BY WITNESS OPREA:

16 A All right, sir. What we did is first I had the
17 opportunity to meet with those that in the final analysis,
18 the four contenders, Stone & Webster, EBASCO, Bechtel, Brown &
19 Root, we met with them relative to their capabilities to
20 perform the job of engineering and building the respective
21 power plant.

22 We met with them in their home office over several
23 days, reviewing their capabilities, their organization, their
24 organizational planning, the involvement of management, what
25 they were doing in regard to recruiting. We looked at the

9-7 1 existing jobs they had, we looked at the backlog they had, we
2 looked at the amount of people they had dedicated to other
3 projects, and we looked at the prospects of having a first
4 team assigned to the project.

5 And we had the opportunity while in the home office
6 of each of these AE contractors to not only talk with projects
7 management types but also executive management. We were
8 interested in executive management involvement as well.

9 In addition to that, we had the opportunity to
10 go on site of several projects that each had to review what
11 they were doing, both in the area of ongoing construction as
12 well as completed construction.

13 That related to nuclear power plants as well as the
14 non-nuclear, in order to get a feel for the way they organized
15 on site, how well they have managed their projects, how well
16 they have had the proper interface between the various
17 ingredients of the project on site that makes up the whole,
18 and I'm talking about in this particular case I remember asking
19 questions of the quality assurance people in regard to their
20 relationship to the construction types, and vice-versa, and
21 whether or not they had some of these things that were perceived,
22 even in the early seventies, the potential of conflict between
23 the two.

24 And that, as you might surmise, took a number of
25 weeks. In fact, I recall in 1972 I spent about 80 percent of

9-8

1 my time away from the office, looking at the A&E contractors,
2 as well as looking at nuclear steam supply vendors. Basically --

3 Q Pardon me. Can I break in there and ask, at that
4 point you had not selected Westinghouse yet?

5 BY WITNESS OPREA:

6 A I'm trying to recall a timetable. I thought we --
7 Westinghouse, I believe, got the NSSS contract about mid-year
8 1973, so it would all have to be running concurrently, so
9 there were a number of things that were really moving in
10 regard to selection of an NSSS supplier, the turbine generator
11 supplier, the -- looking at their capabilities, as well as
12 looking at A&E contractor capability.

13 And again I would say during the period of 19 -- mid-
14 year '72, maybe even before that, through mid-year '73 I may
15 have visited anywhere from ten to twelve different nuclear
16 power plants under various stages of construction; some in
17 operation at that time, others were in various -- and I wanted
18 to see them in various stages in order to have the proper
19 interface of what some of the apparent anomalies or problems
20 might be and how well the people did their job in engineering
21 construction as well as how the NSSS part did their job in
22 supporting the projects.

23 After going through this intensive review and --
24 or sort of establishing, I guess, a list of comparativeness
25 that relate to each of the organizations, and in particular

9-9 1 one of our concerns was whether or not those that had been
2 heavily involved could handle additional jobs and we would get
3 the focus of attention from them to do our job.

4 For instance, Bechtel had a tremendous backlog.
5 EBASCO had a backlog, and of course, we were in the process
6 of recruiting Stone & Webster, similarly had a backlog, and
7 were all working in the same arena of trying to cover all the
8 jobs they had as well as those that were coming on board.

9 We looked at Brown & Root in regard to what they
10 were doing. They were working at Brunswick at that time.
11 They had proposals coming in from, if I recall at that time
12 I believe it was in regard to Comanche Peak.

13 We looked at the way they were organized, what
14 their commitments were. We talked to their management, and
15 I'm talking about their executive management at Brown & Root,
16 and I don't know if at that time they were on Haliburton or not
17 but I vaguely remember that there was a discussion with even
18 the parent company about what they wanted to do in the nuclear
19 field and how were they going about doing it, and everything
20 that we saw, and what they were doing in regard to their
21 capabilities gave us the encouragement, because of what we saw
22 we could not get first-team, front-line attention from the
23 other three AE's, who were predominantly involved, moved us in
24 the area of negotiating a contract with Brown & Root, because
25 we felt that what we saw in Stone & Webster and EBASCO and

1 Bechtel, they were very heavily laden with projects they had
2 committed to at that time and their backlog was extensive, and
3 just looking at what commitments they had, walking through
4 their project management organization, talking to management
5 people, looking at how they're deploying people, and all that,
6 and get the assurance that we would not be No. 10 on their list
7 relative to supplying us people vis-a-vis those that are
8 already one, two and three, caused us some real concern.

9 And based on all that, plus all the real excellent
10 prospects we saw for Brown & Root to be able to handle this job,
11 we negotiated, as I said earlier, a contract with Brown & Root.

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1 Q Of the four that you named, EBASCO, Stone
2 & Webster, Bechtel and Brown & Root, that was the final
3 four?

4 BY WITNESS OPREA:

5 A Those were the final, yes, sir.

6 Q Am I correct that three of those, EBASCO,
7 Stone & Webster and Bechtel are union closed-shop contractors?

8 BY WITNESS OPREA:

9 A Yes, sir.

10 Q And Brown & Root was the only non-union?

11 BY WITNESS OPREA:

12 A Yes, sir.

13 Q Was that aspect an important consideration
14 in your selection?

15 BY WITNESS OPREA:

16 A No, it was not an important consideration.
17 It was a concerned consideration to us at that time, mainly
18 because that everything we did was union shop; and we
19 didn't know that if we happened to go to a -- or take
20 a contract with a non-union shop, whether or not that
21 would cause us problems with our own union.

22 For instance, all our powerplants up to that
23 point in time had been built by a union shop, for the
24 most part by EBASCO.

25 Our operating people and our -- we do not

0-2
1 do our own powerplant construction, but our transmission
2 substation and other electric facility construction and
3 maintenance people, as well as our plant operators of
4 these powerplants are all union.

5 So our concern was whether or not we are going
6 to end up with some sort of a problem between those people
7 that are normally within the envelope of our union activities
8 and those that might be non-union; and, of course, we
9 made the assessment there that it probably would not be
10 a problem and it had not been.

11 Q Let's see. I want to move forward quite a
12 bit now up to this memo of August 13, 1979, CEU Exhibit
13 5.

14 Do you have that?

15 BY WITNESS OPREA:

16 A Is that the Ferguson memorandum?

17 Q That's the Ferguson letter and the response
18 which is Applicants' Exhibit 43, dated the 22nd, August
19 22nd.

20 (Witness reviews document.)

21 BY JUDGE HILL:

22 Q And Mr. Turner, you might want to respond
23 to this question.

24 BY WITNESS TURNER:

25 A All right, sir.

0-3 1 Q Was there a -- I'm seeking the motive for
2 writing this letter of August 13th, and my specific question:
3 Was it intended to be a notice of possible cancellation
4 of the contract?

5 I mean, that in a sense that were you requested
6 or was Mr. Ferguson requested by your Legal Department
7 or Contracting Department to generate such a letter and
8 was the letter intended to serve as a warning?

9 BY WITNESS TURNER:

10 A Okay, Judge Hill, I think I understood you
11 to ask maybe three questions, so let me try to answer
12 them one at a time.

13 First, I think, your question was was this
14 letter intended to notify Brown & Root that we were going
15 to remove them from the project.

16 The answer to that was no, it was not, sir.

17 As I had stated in our earlier testimony,
18 that was one of the options that Mr. Ferguson and I had
19 talked about when in the first paragraph we talk about
20 alternatives.

21 I'd like to speak a little bit about the reason
22 for the memo, if I may.

23 The memo was written for two purposes. The
24 first was to get Brown & Root's attention, or as Mr. Oprea
25 spoke about much earlier in his testimony, twist their

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1 tail.

2 The second reason was in that period of time
3 we were discussing with them many, many things where we
4 felt improvement was necessary, and Mr. Ferguson and I
5 felt it would be in order if we wrote a memorandum and
6 listed those things we thought to be most important at
7 that time, as far as corrections.

8 So I guess you could call this memo kind of
9 a scorecard. We were trying to impress on the Brown &
10 Root people those things we were particularly dissatisfied
11 with, and also give them some listing, if you will, orderly
12 listing, so that they could address it and get resolution
13 on these problems.

14 Now, if there was a third part to the question,
15 I'd ask you please, sir, if you could repeat it.

16 Q I think you've really answered the question.
17 I really was seeking whether you had any intent for this
18 to serve the legal purpose of essentially giving them
19 ten days' notice?

20 BY WITNESS TURNER:

21 A. No, sir. For the record, we did not talk
22 to our attorneys at all prior to writing this memorandum.

23 Q That's what I wanted to know.

24 BY WITNESS TURNER:

25 A. Yes, sir.

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1 JUDGE HILL: That's all I had.

2 BY JUDGE LAMB:

3 Q Mr. Frazar, on Applicants' Exhibit 44 and
4 also 45, is my understanding correct that this is an outline
5 or notes from which you delivered a talk?

6 BY WITNESS FRAZAR:

7 A Not exactly, Judge Lamb.

8 Applicants' Exhibit 44 was a summary of the
9 remarks that I made at that meeting, which was prepared
10 by Mr. Gamon who was at that time the corporate QA manager
11 for Brown & Root.

12 He attended the meeting and took notes and
13 Applicants' Exhibit 44 are the product of his notes of
14 the remarks that I made at that meeting.

15 Q So this is not your work product, but his?

16 BY WITNESS FRAZAR:

17 A That's right. He, I believe showed me this
18 two-page document before he distributed it, or about the
19 same time that he distributed it, with the minutes of
20 the meeting, because he wanted to make sure that he had
21 not misstated the intent or anything, that I didn't have
22 any problem with that; and I remember reviewing this and
23 saying that I thought it fairly characterized the things
24 that I said to them.

25 Q You mentioned several things under Item 2

0-6 1 in particular, which were serious shortcomings: High
2 turnover, need to recruit more personnel, feedback from
3 other utilities concerning the reputation of B&R quality
4 program, need for improving the training program.

5 Was this talk given -- Well, let me put,
6 it this way. Did you really mean all these things as
7 they are here, or were you trying to get their attention?

8 BY WITNESS FRAZAR:

9 A Judge Lamb, I really meant all these things
10 the way that I said them and the way that they are characterized
11 here.

12 We were in the middle of the project at that
13 point. It was going pretty well in the concrete areas.

14 We certainly did not have a lot of significant
15 problems coming out of the project at that point, but
16 my staff in the field was giving me regular feedback about
17 these types of subjects.

18 I was having discussions with Mr. Gamon, leading
19 up to this meeting of the QA Management Review Board;
20 and I felt compelled to deliver this message to the executive
21 management of Brown & Root so that they might know the
22 feeling of the owner of the plant.

23 It was for that purpose that I reviewed these
24 proposed remarks with Mr. Oprea and we agreed that it
25 would be a proper message to deliver to that board.

Q So these do represent your own actual concerns?

BY WITNESS FRAZAR:

A Yes, sir.

Q This was prepared in January, and Applicants' Exhibit 45 was prepared as minutes of a meeting on May 1st.

The concluding sentence in that attributes to you a statement that you can and will recommend B&R in your contacts with other utilities.

In other words, that you are quite high at this point on B&R quality assurance program. Is that correct?

BY WITNESS FRAZAR:

A Yes, sir. That was in response to a direct question, as I recall, at that meeting from either -- I believe it was Mr. Munisteri, who was the group vice president.

They were very concerned about the comment that I made under Item 2 of the Applicants' Exhibit 44 about the reputation of the Brown & Root quality program.

They knew that I was in contact with other utilities, and Mr. Munisteri asked if I were -- as I recall, if I were approached by another utility for feedback on Brown & Root's response to the items that I had mentioned to them in the January meeting, would I be able to give

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0-8 1 them a favorable recommendation.

2 I said, as I believe is characterized here,
3 I said something to the effect of, "Yes, if you follow
4 through with the actions that you have begun at this point,"
5 and this was only four or five months later. So it still
6 was not sufficient time to judge the ultimate effect of
7 those actions; but I felt that if they followed through,
8 that I would be able to give a positive report to those
9 other utilities.

10 Q That was the cause for my question, because
11 this is not very long after the first meeting, and it
12 seemed to me to be a very rapid turn-around, and I wonder
13 whether you in retrospect think that it was really that
14 much of a turn-around?

15 BY WITNESS FRAZAR:

16 A Well, there was not a bottom-line result that
17 could be arrived at as of this May meeting.

18 This was kind of a progress meeting which
19 I had agreed to -- or had promised that I would do with
20 Brown & Root when I met with them in January, that I would
21 come back later and give them feedback, because we were
22 going to monitoring their efforts.

23 This was an interim status report that I was
24 giving them at that time, and I think that there's another
25 part on the first page here. Let me scan it a minute,

0-9 1 if I might. I'd like to highlight it.

2 I'm sorry, I was in error in my memory.

3 There was a report that I gave within HL&P
4 relative to the progress being made by Brown & Root, and
5 I believe my report within HL&P expressed that it was
6 still too early to tell at this particular time whether
7 or not the efforts they had taken were going to indeed
8 provide the bottom-line results that we were expecting;
9 but that I certainly was encouraged by the fact that they
10 had taken some affirmative action in all of the areas
11 that I had mentioned to them in January.

12 Q It raises a question in my mind what happened
13 between this time and the latter part of 1979.

14 Was it that the improvement didn't continue
15 or did things deteriorate in the B&R QA program?

16 BY WITNESS FRAZAR:

17 A There were a lot of changes that occurred
18 on the South Texas Project during that time, Judge Lamb,
19 both within Brown & Root and within HL&P, and I've tried
20 to connect in my mind, at least, what things happened
21 from this period of time to the end of 1979.

22 The conclusion that I reach in making that
23 attempt to connect those items is that while the actions
24 that we took in 1978 were certainly affirmative actions
25 and did correct some problems, that the problems, the

Q-20
1 root causes of those problems that we finally learned
2 about in 1979, late '79, early 1980, that we simply did
3 not get to the level of solving the root causes of those
4 problems.

5 We were treating symptoms as opposed to the
6 causes. We solved some of the symptoms, and I think we
7 were hitting at some of the causes, but we certainly didn't
8 get to the level of identifying those root causes and
9 solving them.

10 Q So in other words, much of the perceived improvement
11 here was perhaps improvement in symptoms, a temporary
12 improvement?

13 BY WITNESS FRAZAR:

14 A Yes, sir, that's correct.
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1 BY JUDGE LAMB:

2 Q In your testimony on Page 101. Mr. Reis covered
3 a couple of my questions already. On Line 7 you are talking
4 about trend analysis.

5 I just wanted to establish is trend analysis per se
6 required by the regulations?

7 BY WITNESS FRAZAR:

8 A No, Judge Lamb, there is not specific language in
9 the regulations, or at least in Appendix B, that refers to
10 trend analysis.

11 Criterion 16, of course, of Appendix B, deals with
12 the subject of corrective action, and talks about steps that
13 can be taken to preclude the recurrence of problems, and trend
14 analysis is certainly one of the techniques that can and has
15 been used to achieve that corrective action that is hit at by
16 Criterion 16 of Appendix B.

17 Q Further down on the page at Line 38 to Line 44,
18 you are talking about the data analysis group, and you say it is
19 now responsible for identifying the methods to be used to
20 collect data, the ways to categorize and monitor deficient
21 conditions by the use of quality indicators.

22 What do you mean by "quality indicators"?

23 BY WITNESS FRAZAR:

24 A Judge Lamb, those would be part of the coding
25 system that we referred to in yesterday's testimony, wherein

I-2 1 non-conformance reports are given a codification for entry into
2 a computer system. Part of that codification is a cause-code,
3 if you will.

4 In other words, for an example, I will just pick
5 a hypothetical because I can't quote all of the codes, but a
6 code of 03 in the alpha-numeric coding system might mean that
7 the cause was failure to follow procedure, for example.

8 Another code, 04 might be a design error, or, you
9 know that sort of thing.

10 So, quality indicators are those things that come
11 out of the codification system that indicate the cause of the
12 particular non-conformance.

13 Q At the bottom of Page 102 you are talking again
14 about trend analysis. Does the primary responsibility for trend
15 analysis rest with B&R or HL&P, or both?

16 BY WITNESS FRAZAR:

17 A Both, Judge Lamb. Brown & Root's data analysis
18 group performs the data gathering, accumulation, and sorting
19 into categories, and so forth. They use a computer to assist
20 them in that.

21 They produce a data analysis report that goes to
22 the quality engineering function, along with any what I think
23 we call a suspect trend investigation request, which is produced
24 by the systems people.

25 That goes to Quality Engineering, and then Quality

1 Engineering is obligated to take those trend investigation
2 requests and perform their own investigation of the area that
3 looks like there might be a trend involved, and then after they
4 have done the investigation, if there is a problem that indeed
5 has been confirmed through that investigation then they issue
6 the necessary corrective action request to get corrective
7 action in there.

8 Now, Houston Lighting & Power QA does its own
9 trend investigation activity from two sources of information.
10 One is off of the implementation reviews performed by the HL&P
11 QA personnel when they go to the field where we do trending,
12 plus we take the data output from the Brown & Root data analysis
13 group and we do our own analysis of that data to determine if
14 there are areas where trend investigations should be performed
15 but which because of judgmental factors that enter into what is
16 a trend and what is not a trend, maybe somebody has not picked
17 up what appears to be a trend.

18 So we duplicate, in some measure, the trend analysis
19 done by the Brown & Root organization on our own.

20 Q You review the trend analysis of the B&R
21 organization?

22 BY WITNESS FRAZAR:

23 A Yes, sir. We review it, and we also do our own
24 analysis of their information to see if there are other areas
25 where we might find additional trend or suspect trends.

1-4 1 Q Turning to Page 110, Line 12, you use a term that
2 I am not familiar with, the "record traveler."

3 BY WITNESS FRAZAR:

4 A A traveler in that context I extracted that from
5 my knowledge of how shop -- manufacturing shop operations are
6 normally conducted, wherein the requirements of a particular
7 design specification are entered into a document called a
8 traveler, and that traveler goes with whatever the piece of
9 equipment is that is being manufactured through all the various
10 shop operations, and there are signatures on the traveler on
11 each point of the fabrication process to say, yes, we have met
12 this requirement, or we have done this step in the process.

13 Q Similar to a routing slip?

14 BY WITNESS FRAZAR:

15 A Yes, sir, exactly. And that is the type of thing
16 that that refers to, but it is a traveler that goes along with
17 a records package that is assembled by the Quality Engineers
18 to lay out which records are required, and who has to approve
19 them, and that sort of thing, and that flows along with the
20 records package for a particular activity.

21 Q Now, the last paragraph on Page 117, you say that
22 HL&P is committed to having an independent audit of the STP QA
23 program at least once every 12 months. By whom?

24 BY WITNESS FRAZAR:

25 A Independent means from outside our company. We

1-5 1 would select an organization to perform an independent audit,
2 such as the Bechtel audit was performed in 1980, and again in
3 1981. Each 12 months we will have that type of an audit of the
4 total program.

5 Q Thank you.

6 Now, Mr. Briskin, on Page 55 of your testimony.

7 BY WITNESS BRISKIN:

8 A Yes, sir.

9 Q At the bottom of page with respect to talking about
10 the staffing of the Task Force, what was the basic philosophy
11 in setting up the type of staffing that you had on this?

12 BY WITNESS BRISKIN:

13 A Basically that the eight items of show cause that
14 I was to deal with directly fell into two areas; one procedural,
15 and one the technical areas as to the status of the soils,
16 welding and concrete.

17 My thinking was to get the best technical knowledge
18 I could that was both competent technically, and aware of what
19 was there, what was supposed to be there. In fact, I had some
20 long discussions with the vice president of engineering for
21 Brown & Root in getting the man I wanted, because we were trying
22 to get the Task Force pulled together and at the same time keep
23 the job going, and it was a fine line between taking people
24 away from the project, but yet having the best people available
25 to do the Task Force.

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1 In the area of the procedures we felt that of the
2 people we had available that Mr. Ulrey was the most knowledgeable
3 and could, had both the managerial skills, as well as the
4 technical skills to organize that part of it.

5 Q I notice that several people, including Mr. Hawks
6 and Mr. Peverley, I believe, and Mr. Purdy, and Mr. McKenney,
7 who are B&R employees --

8 BY WITNESS BRISKIN:

9 A Yes, sir.

10 Q -- were these people involved in reviewing and
11 analyzing their own work or someone else's work within the
12 B&R organization?

13 BY MR. BRISKIN:

14 A Well, in the area of the three technical areas,
15 primarily we were concerned with the status of the construction,
16 and we used the engineering people to organize that finding,
17 and went out and in fact and used many consultant type people,
18 so that they were not truly inspecting their own work.

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1-7 1 In the procedural area it was not a matter of
2 inspecting the work. It was a matter of reviewing the procedures
3 and changing the procedures to meet the requirements of the
4 Show Cause Order.

5 But some of the people were involved in their own
6 areas, as in the case of Mr. Purdy.

7 BY WITNESS FRAZAR:

8 A Judge Lamb, if I might supplement, because I got
9 involved to a certain extent in some of the procedure
10 finalization, if you will, after we had made the basic decisions
11 relative to the organization structure which was my primary
12 role on the Task Force.

13 Then I shifted over to participate as a reviewer
14 of some of the proposed changes to the procedural systems. We
15 used the Brown & Root and HL&P people to assist in the
16 preparation of the proposed changes to the procedural systems,
17 along with some consulting help from MAC, and principally
18 because those people in HL&P and Brown & Root provided a very
19 valuable knowledge and familiarity with what the then existing
20 procedures discussed and it provided a good basis on which to
21 project changes and to consider the effects of those on the
22 project and how we would avoid, you know, duplicating the same
23 things that we had had in the past which we had demonstrated
24 did not work well.

25 Q Thank you. Mr. Briskin, were you concerned at any

1-8 1 time about possible, well, conflicts of interest, since you
2 had people who were reviewing their own work area, or did you
3 feel you had checks and balances to control that, or did it
4 need controlling?

5 BY WITNESS BRISKIN:

6 A No. We never really had a concern in that, in the
7 area where we were doing the checking we essentially, except at
8 the lowest levels, did not have the people that were involved
9 in doing the work.

10 The fact that it was Brown & Root -- Other than
11 the fact it was Brown & Root, I should say.

12 In the case of the welding, for instance, we went
13 outside and hired a consultant-- in this case I believe it was
14 NuTech -- who did most of the surveillance of the procedures
15 and established the ground rules, so to speak, for the
16 investigation of the sampling that was to be done, and in fact
17 brought in some of the inspection.

18 In the case of the soils, we used the consultant --
19 excuse me. The name escapes me for a moment -- Woodward Clyde
20 to do the investigating, and they were involved, also, with the
21 key consultants we brought in to review the findings of those
22 panels, so the investigation work, the data gathering, if you
23 will, was done by some Brown & Root employees, some consulting
24 work, but all were reviewed by outside consultants of very high
25 stature.

12-1

1 Q Okay. On Page 68 of your testimony, up on
2 Line 15, you indicate that in response to the order that the
3 project site engineering organization was expanded from 12 to
4 56 engineers.

5 That's over what period of time?

6 BY WITNESS BRISKIN:

7 A That was, I would say, from sometime after the
8 order was received, possibly June, I'm not sure exactly when
9 we started to build the organization, but it was before we
10 answered the Show Cause, until most recently, and it was a
11 steady growth, fairly linear, until the last two months.

12 I think we took a little bit of a jump in the last
13 month that wasn't.

14 Q Am I right in assuming that much of this growth
15 was a result of transfers within the company as opposed to
16 hiring new people?

17 BY WITNESS BRISKIN:

18 A Yes, some were transferred. I was asked that
19 question yesterday and I really haven't had time to research.
20 It was some of both.

21 But we also had a very vigorous recruiting program
22 going on within Brown & Root and for the home office engineering
23 at the same time, so it's difficult to tell which was which.

24 Many of the key discipline personnel that are at
25 the jobsite were transferred from the Houston office. They're

12-2

1 knowledgeable people as to what was already designed.

2 Q In the last paragraph, first sentence, you say that
3 the NRC report stated that some QC inspectors were uncertain
4 whether the engineering was adequately informed of conditions
5 at the site when they were reviewing FREA's.

6 Was engineering suitably informed, adequately
7 informed, in your view?

8 BY WITNESS BRISKIN:

9 A Well, the --

10 Q What I'm asking is whether that perception was
11 correct.

12 BY WITNESS BRISKIN:

13 A I have no way of knowing that, but rather than
14 trying to make that determination, we just made plans to see
15 that they were informed by moving the right people down to
16 where the information was, by building this organization.

17 Q So your group didn't arrive at a conclusion as to
18 whether or not that was correct?

19 BY WITNESS BRISKIN:

20 A No. It could be a lot of supposition. It gets
21 very subjective.

22 Q On Page 72, in the middle of the page, Lines 26 --
23 the last sentence in that paragraph beginning on Line 26 to
24 the end of the paragraph, you're talking about DCN's.

25 My question is, are DCN's routinely reviewed by

12-3

1 the original designer for that area or device, as the case
2 may be?

3 BY WITNESS BRISKIN:

4 A The original designer in that -- the group
5 responsible for the initial design is also responsible for
6 reviewing the change. It may not be the same person.

7 Q Mr. Turner, on the Ferguson to Dodd report, I
8 gather that you knew about this ahead of time, that this
9 report was going out.

10 BY WITNESS TURNER:

11 A That's the Ferguson memo?

12 Q Yes.

13 BY WITNESS TURNER:

14 A Yes, Judge, I did.

15 Q And so you agreed with the, well, the general
16 coverage. I think it has been testified that you didn't --
17 maybe you didn't actually see it before it went, but that you
18 were pretty familiar with its content, is that correct?

19 BY WITNESS BRISKIN:

20 A That is correct.

21 Q Did you initiate that? In other words, was this
22 your idea to start that ball rolling to prepare this?

23 BY WITNESS BRISKIN:

24 A No. That was Mr. Ferguson's idea, I believe, and
25 I guess we would have to say that I was a party to it and I

12-4 1 agreed with it, as did Mr. Barker, our project manager.

2 Q In connection with the business of considering
3 other alternatives, did HL&P actually seriously consider
4 relieving Brown & Root?

5 BY WITNESS BRISKIN:

6 A At that point in time, Judge, I think it -- I guess
7 I'm having problems with the word "serious."

8 As I had testified earlier, we discussed the
9 alternatives that we would have, and basically, of course, that
10 included construction management. That included our getting
11 much more involved. It included us moving in and integrating
12 our organization, and it included, of course, subcontracting
13 and removing them, so all of those items were discussed.

14 They were not discussed at any length, and in the
15 way that we would -- well, let's hypothetically take it one
16 step further, if we can, to clarify it.

17 We would do some of the things that would be much
18 less drastic than removing Brown & Root before we could get to
19 the point where we would seriously consider removing Brown & Root.

20 I hope I cleared it up for you.

21 In other words, there are other steps, subcontracting
22 areas where we felt they were deficient, for instance. There's
23 another method that could improve the productivity and the
24 scheduling and cost, and areas like that, so we would take
25 several steps before that last, what I would call a drastic step

12-5 1 would be taken.

2 Q Was this also true at your level, Mr. Oprea?

3 BY WITNESS OPREA:

4 A Yes, indeed.

5 Q That is that you discussed the possibility but you
6 really -- perhaps I'm reading into this that you really didn't
7 consider it seriously as something which was imminent?

8 BY WITNESS OPREA:

9 A Well, the mental process I go through on something
10 such as this is when we identify that we do have some
11 significant salient problems that have to be turned around,
12 and if we feel that we need to take a tough position and go
13 beyond just a twisting of the tail, what we do is say, well,
14 in the event we pursue this path, like the Ferguson memo as
15 an example, you virtually get no response.

16 We sit down and say, if that takes place what are
17 the options we have to pursue, and then we go through the
18 "what if" situation and step through them from the less severe
19 to the more severe, and of course, the most severe in this case
20 is removal.

21 The order of severity would be, as Mr. Turner was
22 bringing out, was subcontracts, more enforcement of the usage
23 of subcontractors other than what Brown & Root were using, the
24 establishment of a stronger construction management team,
25 perhaps bringing in an independent construction management

12-6 1 organization, HL&P's more involvement in the absolute project
2 management from the standpoint of the doer instead of the
3 client pushing the doer, and then of course ultimately if all
4 those three steps perhaps would fail, then to removal.

5 Q There was no mention, as I indicated yesterday,
6 there was no mention in here about the QA/QC activities.

7 Mr. Turner, was there a parallel concern in that
8 area at this time, or was this strictly devoted to the question
9 of scheduling, costs, construction management?

10 BY WITNESS TURNER:

11 A This memo written by Mr. Ferguson and Mr. Dood was
12 primarily concerned with costs and schedule.

13 However, a basic philosophy -- I don't think -- I
14 guess what I'm trying to say, Judge, is I don't think you can
15 divorce quality if you're concerned about cost and schedule,
16 because if any contractor keeps repeating whatever it is he's
17 doing, then the cost naturally is going to go up, and if the
18 cost goes up the schedule is going to be delayed. That's a
19 given.

20 So although this particular memo was addressing
21 costs and schedule, I think there were -- in fact, I know there
22 were activities going on in the quality assurance area to
23 improve that, because we are having continuing dialogue with
24 the NRC. They were bringing up, as we mentioned earlier,
25 allegations. They were doing inspection reports and bringing in

12-7

1 things -- brining to our attention things where improvements
2 were necessary.

3 I guess what we were doing was we were having a
4 parallel, or attempting to have a parallel improvement on the
5 South Texas Project, both in the area of cost and schedule and
6 in the area of quality assurance.

7 Q Was this at a time when quality assurance reported
8 to you?

9 BY WITNESS TURNER:

10 A Yes, sir. Quality assurance reported to me from
11 1978 until 1980.

12 Q Have you read the Bechtel report, Mr. Turner?

13 BY WITNESS TURNER:

14 A I'm sorry?

15 Q Have you read the Bechtel report?

16 BY WITNESS TURNER:

17 A No, I have not read the Bechtel report. I believe
18 the Bechtel report came in after I had been reassigned to the
19 fossil area.

20 Q Mr. Turner, the testimony when the Brown & Root
21 management people were on the stand indicated a large number of
22 changes in the management organization of B&R at the site.

23 BY WITNESS TURNER:

24 A Yes, sir.

25 Q How much of a problem was this in your perception in

12-8

1 their management of the site?

2 BY WITNESS TURNER:

3 A Some of the changes that were mentioned, Judge,
4 I don't think was -- well, they had no control over those
5 people that did leave per what they considered better
6 opportunities.

7 We were working with Brown & Root to get -- and we
8 kept pushing them, and I think it's reflected in some of the
9 Ferguson memo, to get a well qualified, strong nuclear person
10 on that site to run the site.

11 Each step that they made in their site management
12 was, in my judgment, a step in the right direction.

13 As far as the lack of continuity, I think is the
14 way it was described, I think that did have an effect on the job.
15 It would have to have an effect. To what degree, I couldn't --
16 I would have to speculate, and I have really no way to do that.

17 But what we were attempting to do is to get the
18 person on that job that -- so that we could -- in both the
19 Brown & Root organization and the Houston organization, I
20 might add, so we could stabilize the work area and stabilize
21 the management and get on about the business of building South
22 Texas in a quality manner.

23 Q Do you view that number of changes as a shortcoming
24 in B&R's management of the project?

25 / / /

12-9 1 BY WITNESS TURNER:

2 A I would have been much happier had they been able
3 to get the strong candidate I described at a much earlier date,

4 Q I interpret that as partially, at least, a positive
5 answer. Is that reasonable?

6 BY WITNESS TURNER:

7 A I don't -- it's a hard question to answer, Judge.

8 I know that they were doing everything that they
9 could to get a strong person at that site, vis-a-vis when
10 Mr. Dood came in, and that was a temporary thing, so that
11 replacement was something that we had discussed with Brown &
12 Root and we were knowledgeable of.

13 And right after that Mr. Douglas came in.
14 Mr. Douglas appeared to us to have all the credentials that we
15 were looking for.

16 It was too bad that Mr. Douglas chose to go to
17 another position in another organization.

18 So that change was something that Brown & Root had
19 no control over, and it may have been speculating that Mr. Douglas
20 would have been the person that could have done the job, if
21 you will. We have no way of knowing that, of course.

22 The person they have on board now, I understand,
23 and really I haven't had any involvement for sometime, the
24 person they have on board now I understand is a very strong
25 candidate with all the credentials that are needed to get the

12-10

1 job done.

2 Q To what extent do you think that might have had an
3 impact on the QA/QC problems at the site?

4 BY WITNESS TURNER:

5 A When?

6 Q In '79 to '80, that period.

7 BY WITNESS TURNER:

8 A The changes that were made in the Brown & Root
9 organization at that level in that time frame, in my judgment,
10 were changes that improved the QA/QC relationship with the
11 construction.

12 Q You feel they improved in spite of the changes?

13 BY WITNESS TURNER:

14 A Yes, sir, I do.

15 Q Do you agree, Mr. Frazar?

16 BY WITNESS FRAZAR:

17 A Yes, sir, I do. I found through my staff who was
18 at the jobsite at that time that Mr. Douglas was a tough
19 individual and he was equally tough and fair on his own people
20 and really tried to focus in on the accomplishment of the
21 objectives of the project in terms of building the job in
22 accordance with the specification requirements, and I think
23 that in spite of the turnover that you're mentioning, that
24 improvements did occur during that period of time.

25 Q Well, I guess what I'm wondering is from your

12-11

1 perspective did the number of changes adversely affect the
2 QA/QC program?

3 BY WITNESS FRAZAR:

4 A The number of changes of personnel?

5 Q From the period of several years.

6 BY WITNESS FRAZAR:

7 A That's very hard to quantify, Judge Lamb. There's
8 always a question about changes in the organization and what
9 effect that has in terms of stability of the organization and
10 questions down in the organization looking up as to what the
11 new policies are, what the new approach is going to be when a
12 new man reports aboard.

13 It has somewhat of an unsettling effect in the
14 organization, certainly, but I think in large measure that
15 there was an improvement over the balance, that there was an
16 improvement, quite a steady improvement through the course of
17 these changes.

18 Beyond that, it would really just be speculation
19 on my part to try to say whether or not it had a direct effect
20 on the program.

21 Q Mr. Turner, in looking at the approach of having the
22 same organization undertake the design construction and
23 inspection, do you have any thoughts as to whether that's the
24 optimum arrangement, or whether some other approach might be
25 better?

12-12

1 BY WITNESS TURNER:

2 A I have some definite thoughts in the area of fossil
3 plant construction and of course we're not here to discuss
4 fossil plant construction, but if you would allow me, I would
5 tell you what our policy at Houston Lighting & Power Company in
6 that area is, and that is that we feel that the engineering
7 should be put out as an individual package.

8 We deal with three or four of what we call the
9 elite of the engineering crop. We deal with them. We get
10 competitive proposals from them and we select the engineer that
11 we feel can do us the best job on the engineering --

12 Q This is the designer?

13 BY WITNESS TURNER:

14 A Yes, sir, on the design.

15 After that, when it's time for the construction,
16 of course, when the engineering is far enough along for
17 construction, we then have several contractors that we feel
18 are capable of doing us a quality job, one that's within costs
19 and schedule, and we put that out for competitive bidding to
20 those contractors.

21 So I guess I was saying that in the fossil area
22 I feel very strongly that that is the way to do it. That is
23 the way I can ensure our Chief Executive Officer that we're
24 getting a quality engineered, a quality constructed plant at
25 the best competitive price.

12-13

1 Q Who does the QA under that arrangement?

2 BY WITNESS TURNER:

3 A We have a fossil plant QA, which is under the
4 direction of Mr. Frazar, the corporate QA manager, and I
5 believe it's Mr. Bill Phillips that is responsible for the
6 fossil plant QA, and he has a staff, Judge, that I don't
7 even remember the number that he has in that, but he has that
8 responsibility. We have a --

9 Q And does the --

10 BY WITNESS TURNER:

11 A Excuse me.

12 Q Go ahead.

13 BY WITNESS TURNER:

14 A Yes, sir. We do have a fossil quality assurance
15 plan.

16 BY MR. OPREA:

17 A Let me, if I might, Judge, also identify -- I don't
18 want you to get the impression that what Mr. Turner's stand
19 about fossil is unique to just the fossil.

20 When this whole concept of breaking up from the
21 original approach we took some years ago to giving the plant
22 to one AE contractor and to splitting it up took place, this all
23 happened while I was still running the fossil end as well.

24 Mr. Turner worked for me at that time and we
25 developed this back some years ago to break up this approach of

12-14 ✓
1 the past into more significant things to give us this area
2 that Mr. Turner was talking about.

3 Now, relative to the area of quality assurance on
4 fossil, it's true that before we sent Mr. Frazar out to the
5 South Texas Project as site QA manager that fossil was under
6 Mr. Frazar. It is not today.

7 You recall in my prior testimony we have what I
8 call a bifurcated quality assurance department where I serve
9 as the quality assurance manager, and Mr. Frazar answers
10 directly to me.

11 And Mr. Ulrey, who handles our Houston QA operations,
12 which includes fossil, also answers directly to my office.

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1 Q Now, this approach of providing separate design
2 and construction, Mr. Turner, is this something which
3 the policy has changed on within the past few years, or
4 is the STP a unique arrangement within HL&P?

5 BY WITNESS TURNER:

6 A No, sir, our policy has changed within the
7 last few years?

8 Q It has?

9 BY WITNESS TURNER:

10 A Yes, sir.

11 Q For fossil, as well?

12 BY WITNESS TURNER:

13 A For fossil plants is what I'm speaking to.
14 If we were going to do a nuclear plant --
15 and Mr. Oprea might want to expand on this, but I think
16 if we were going to do a nuclear plant today, that the
17 company would have to sit down and do a lot of serious
18 studying as to which is the best way to approach the design
19 and construction of the nuclear plant.

20 One of the things we do, Houston Lighting
21 & Power Company does in the fossil engineering and construction
22 of a plant is that we do our own construction management;
23 and, of course, that -- we're talking now about numbers
24 of people, and I don't know whether that would be practical.

25 I don't believe myself it would be practical

3-2

1 on a nuclear job. It's so much more complex.

2 Q Is it your feeling that the AE approach can
3 be used effectively and efficiently and maintain good
4 quality? Is this a viable approach in your view now?

5 BY WITNESS TURNER:

6 A In my feeling? My feeling is that the approach
7 that we have at South Texas is a viable approach.

8 It can be done effectively; and I agree --
9 although I didn't read the Bechtel Report, I have heard
10 some of the testimony on the doers, if you will -- I think
11 that's Mr. Amaral's statement.

12 I believe that the quality assurance, that
13 the person -- that engineers should be responsible for
14 the quality engineering, and I believe that the person
15 that builds should be responsible for the quality of what
16 he's going to build.

17 Q So you believe that the constructor and whoever
18 does the engineering, that the constructor and the QA
19 for the construction should be within the same organization?

20 BY WITNESS TURNER:

21 A I believe that plan is, as you said, viable;
22 yes, sir.

23 Q All right:

24 Do you agree with that, Mr. Oprea?

25 //

3-3 1 BY WITNESS OPREA:

2 A Yes, sir. I'd just like to give you a little
3 better expansion on that, if I might.

4 I believe we recognize that there are a number
5 of nuclear powerplants today that are being built under
6 a single AE contractor who is performing those dual functions,
7 as well as the quality assurance function.

8 To the best of my knowledge of what I know
9 of what's going on in industry, I'd say roughly 50 percent
10 of those that are being built today are under what I call
11 the unitary concept, or one individual entity concept,
12 and the balance is under the mixture.

13 These are some significant organizations,
14 like Florida Power & Light, Southern Cal Edison, Arizona
15 Public Service.

16 I know Bechtel had done that at one time,
17 as well as Duke Power, and of course, TVA does their thing,
18 as well.

19 I think it's important to know that they can
20 be as successful as any approach you want to take.

21 The concept that we embarked upon in recent
22 years relative to splitting off of the engineering and
23 the construction took place roughly about six years ago.

24 I think South Texas and two coal-fired units
25 were the last of the sort that we allowed one A&E contractor

3-4 1 to perform the multi-functions that relate to building
2 a nuclear powerplant and/or a coal-fired powerplant.

3 Now, Allens Creek would be in the same category,
4 but I relate that to an earlier period, like a year, to
5 South Texas, although we are behind construction-wise.
6 We haven't started now on Allens Creek.

7 It's under EBASCO. But those are the last
8 of a kind.

9 It was about 1974, '75, thereabouts, with
10 the start of our W. A. Parish No. 7 coal-fired unit and
11 subsequent units where we have greater lead time to perform
12 the engineering as a prelude to going out in the field,
13 where we are able to split up the engineering and the
14 construction work.

15 Many times you are forced to go to a single
16 entity to do engineering and construction when the total
17 amount of time to get the project done from the time that
18 you want to start it to the time you need it commercially
19 is so small in time comparative to the normal, that you
20 would go ahead and go to a single entity to do the work.

21 Like on a coal-fired unit, you need seven
22 years. Where you have that seven years, you can afford
23 to go ahead and develop your engineering specifications,
24 go on and bid for engineering, and then from that, develop
25 your engineering, go through some of the environmental

3-5 1 licensing necessary for the plant, and then develop your
2 construction specifications and release those.

3 If you only had five years, you have a real
4 problem to get that unit completed, and sometimes you
5 might be forced to go with a single entity, because you
6 can handle both the engineering and construction simultaneously;
7 but for the most part, we've built greater lead times
8 in our projects. We have the ability to go through a
9 more leisurely approach, although we don't have that much
10 time, because we just don't control -- those things are
11 beyond our control.

12 As a result, we can go to this dual entity
13 or responsibility approach, which I feel is very effective.

14 Q So your present trend, then, I gather, is
15 to separation of those functions?

16 BY WITNESS OPREA:

17 A Yes, sir, that's the way we've been going.

18 Q If times allows?

19 BY WITNESS OPREA:

20 A Yes, sir.

21 Q Mr. Oprea, with respect to the question of
22 the extent to which the plans were completed at the time
23 you went ahead and went to the field to start construction
24 with B&R, that is the 50 percent completion, which apparently
25 people thought had been attained at that time, but later

3-6 1 turned out to be something more like 10 or 15 percent,
2 was this an important factor in selecting B&R to do the
3 construction?

4 BY WITNESS OPREA:

5 A I really don't have a good feel for the question,
6 but the fact that they could get more engineering?

7 Q No, the fact that they thought the engineering
8 was farther along than it was?

9 BY WITNESS OPREA:

10 A I guess I lost the real thrust of your question.
11 Could I get it restate?

12 Q All right. It's been testified that at some
13 point it was -- at the time the decision was made to go
14 to construction, that B&R estimated that the engineering
15 was 50 percent complete.

16 BY WITNESS OPREA:

17 A That's correct.

18 Q Whereas actually, it was 10 or 15 percent
19 complete as it develops in retrospect.

20 BY WITNESS OPREA:

21 A Yes, sir.

22 Q And my question is, how important a factor
23 in selecting B&R was the fact that they were 50 percent
24 complete?

25 //

3-7 1 BY WITNESS OPREA:

2 Q Well, let me answer that, as a prelude to
3 selecting any architect for any job, whether it's nuclear
4 or fossil, we like to get them to commit to providing
5 us a minimum of so much engineering.

6 If you are time short, as we were on South
7 Texas, based on the schedule we had -- it was roughly
8 a seven-year schedule, based on an average of eight to
9 ten years at that time, and now it's up to fourteen years;
10 but with that short, what I call condensed constricted
11 schedule, we felt that we could go out in the field with
12 40 to 50 percent of engineering that would adequately
13 support the construction activity.

14 So in pursuing the respective A&E contractor,
15 as a prelude to giving Brown & Root the contract, and
16 we pursued it with the four heavy contenders, Bechtel,
17 EBASCO, Stone & Webster, as well as Brown & Root, the
18 others assured us they could get at least 40 percent;
19 Brown & Root in the 50, 60, maybe more.

20 We had a criteria that we always said we like
21 90 percent. We still do. That's the perfect world that
22 we like, because if you can go to the field with 90 percent
23 engineering, you are assured that a lot of things can
24 happen and you don't have schedular delay.

25 But unfortunately, you need a lot of time

3-8 1 to get to 90 percent. You need more than just one or
2 two years, and at South Texas we couldn't do it. We just
3 had a front-end constriction in time.

4 So Brown & Root was selected, as we would
5 any A&E, before we ever gave them the contract, on the
6 basis that they could give us X amount of engineering
7 by the time we needed to go out in the field in order
8 to assure the plant will be completed by the time we need
9 it to perform commercially to supply energy to our many
10 customers.

11 BY WITNESS FRAZAR:

12 A Judge Lamb?

13 Q Yes.

14 BY WITNESS FRAZAR:

15 A I think I can help a little bit on that question,
16 because there may be a confusion factor here.

17 Brown & Root was given a full scope contract
18 in the beginning.

19 In other words, we did not go through a portion
20 of the engineering and then go out for bids on construction.

21 We awarded the contract for engineering and
22 construction all at the same time in 1973.

23 So the construction had already been selected
24 at the time we went into the field, and that was planned
25 to be Brown & Root all along.

3-9
1 Q Thank you.

2 JUDGE BECHHOEFER: I think at this stage we
3 would like to break for lunch.

4 MR. JORDAN: Your Honor, I'd like to avoid
5 breaking for lunch, if we could. I'd just as soon leave
6 as soon as we can.

7 We can get sandwiches downstairs and come
8 up and eat while we work.

9 JUDGE BECHHOEFER: We'll take a half an hour's
10 break and hope we can get something downstairs for lunch.

11 (Whereupon, at 1:27 p.m., the hearing was
12 recessed, to reconvene at 2:00 p.m., the same day.)

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AFTERNOON SESSION

2:10 P.M.

JUDGE BECHHOEFER: Back on the record.

BY JUDGE LAMB:

Q Mr. Oprea, Mr. Frazar stated reporting to you when?

BY WITNESS OPREA:

A June 1980, directly to reporting to me --

Q Right.

BY WITNESS OPREA:

A -- as a result of Show Cause, yes, sir, June 1980.

Q Before that he didn't report to you directly?

BY WITNESS OPREA:

A He reported to me through Mr. Turner, who in turn reported to me.

BY WITNESS FRAZAR:

A From April 1 of 1977 until about of 1978 I also reported to Mr. Oprea, because I was a corporate QA manager, and Mr. Turner was not yet in his position of vice president construction of power plant/and technical services.

Q Do you view this arrangement with the QA manager reporting to you as a temporary or permanent arrangement?

BY WITNESS OPREA:

A The site QA manager?

Q Yes.

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1 BY WITNESS OPREA:

2 A I have to view it as a temporary one. When I say
3 "temporary" in nature I mean until I'm satisfied that the
4 organization that relates to South Texas and other parts of
5 Quality Assurance are in place to my satisfaction, and we have
6 the appropriate successor to Mr. Frazar as corporate QA manager
7 at some subsequent point in time.

8 Q Mr. Goldberg and Mr. Amaral both indicated in
9 response to questions that they thought it would be acceptable
10 for the QA manager to report to a lower level. Do you agree with
11 that?

12 BY WITNESS OPREA:

13 A Yes. Yes, sir, I do.

14 But the reason I have maintained and will continue
15 to maintain the positive touch to the project is because the
16 problems of old that, of course, I related to why we are in
17 this form today, and for the need to assure in everybody's mind,
18 both in our organization, and outside, that executive management
19 will be involved, irrespective of work quality assurance
20 answers.

21 Q Questions have also been raised concerning the
22 relative position, accessibility, and salaries of Mr. Frazar
23 and Mr. Goldberg. Would you care to comment on that?

24 BY WITNESS OPREA:

25 A Yes, sir. First, from the standpoint of relative

4-3
1 positions, I think it is obvious that Mr. Goldberg's position
2 is a much higher placed position in the organization. He
3 responsibilities, I think are much broader than Mr. Frazar's.
4 He has a much broader experience base. Of course, we would not
5 hire a man that had any less than what he had to take on the
6 responsibilities he has.

7 So from the standpoint of respective positions in
8 the organization, yes, Mr. Goldberg has a much higher position
9 and has greater responsibilities than what Mr. Frazar has. And
10 I'm not saying to try to diminish the role that Mr. Frazar
11 has, but quality assurance is limited to certain various areas,
12 and as such it is significant to recognize those limitations
13 in regard to the broad area of responsibilities that Mr. Goldberg
14 has.

15 But I'm not saying that I don't look at Mr. Frazar's
16 job, or any individual in quality assurance, running the
17 quality assurance activities for the company as insignificant.
18 It's an important function. It's one that has to have the full
19 attention of all those people with any organization that are
20 directly involved or indirectly involved, and I think indeed
21 that is the case in our organization today.

22 So they have their relative levels of import in
23 the organization based on those respective qualifications I
24 just gave you.

25 Q How does their difference in standing of position

4-4 1 within the company, and in salary affect their accessibility to
2 you?

3 BY WITNESS OPREA:

4 A Doesn't affect it at all, because I give them
5 equal times. In fact, there are times that Mr. Frazar
6 probably gets more of my time than Mr. Goldberg, and there
7 are other times that Mr. Goldberg gets more of my time, but I
8 have always been of the belief that the people that answer to
9 me have access to me as readily as they want to make it. They
10 have different ways of doing it; through direct contact, by
11 telephone, and if they can't contact me that way, through a
12 note or two, or asking for audience. There are different ways
13 of doing it, but the contact can be achieved through a number
14 of ways.

15 And, of course, what contacts that they don't
16 pursue, I in turn pursue because I am a believer of the follow-
17 up system.

18 Q Mr. Oprea, a question has also been raised
19 concerning the possibility that perhaps too much responsibility
20 was left with B&R back in, well, time before the Show Cause
21 Order.

22 I wonder what your view is of this?

23 BY WITNESS OPREA:

24 A Is this relative to the quality assurance functions?

25 Q Well, either or both.

4-5 1 BY WITNESS OPREA:

2 A Well, I don't really feel that was the case. When
3 we started out on the project, and I guess my comments now will
4 hopefully support why I said I don't feel that was the case, is
5 that back in the earlier days, maybe you call them the golden
6 days where there was probably less strife and probably less
7 complex issues related to what we are doing today, we were of
8 the position, and I think we identified either in my testimony
9 or maybe Mr. Amaral did, but many utilities took on these
10 project with an A&E contractor whereby you in essence in our
11 project management provided a surveillance factor or monitoring
12 factor.

13 One whereby we would get inputs from the A&E
14 contractor and maintain a dialogue with them on a periodic
15 basis. And the period of dialogue could probably be as
16 frequent as several times a week. They may be several times
17 per month. But there was a periodic dialogue through the
18 passage of time.

19 Well, with the passage of time, and as these
20 projects got more complex, our dialogue is daily. It is not
21 the way we perceived it to be back in 1971, 1972, and 1973.
22 It is one whereby the utility has to be more heavily involved,
23 and we were going through that transition to some degree on
24 South Texas, as well as other projects that were non-nuclear,
25 whereby we realized that we had to get more heavily involved

4-6
1 from a standpoint project management, project management
2 directive giving, as well as levels of executive management
3 that have project management answering to them and get more
4 involved.

5 And this is the case. So through the passage of
6 time we have moved more and more in the area of, let's say,
7 forcing a lot of things that take place, demanding a lot of
8 things that take place, and being involved in some of the
9 decision-making that takes place on the project, which in
10 itself would be indicative of not putting the full responsibility
11 on say an A&E contractor and allow them the freedom to do things
12 the way they would like to do without being checked, without
13 having to answer to them, or give the justification, and we have
14 done that on South Texas for a number of years now, and I think,
15 again, it is a matter of intensity.

16 We have increased that intensity with the passage
17 of time.

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4-7
1 BY JUDGE LAMB:

2 Q You do supervise them more closely now than you
3 did a few years ago.

4 BY WITNESS OPREA:

5 A We are supervising them more closely today than
6 we were a year ago, but a year ago we were doing it much closer
7 than a year prior to that.

8 And I can say that without reservation, because
9 there is a degree of transition that has been taking place on
10 the project in our involvement since about mid-year '75 -- well,
11 I would say since about mid-year '76, early 1977.

12 Q How has that been accepted by Brown & Root?

13 BY WITNESS OPREA:

14 A Well, A&E contractors have a sense of pride, all
15 of them. They like to be recognized as being able to do their
16 thing without having the pressures from the client continually
17 being brought to the forefront, -to their attention that the
18 client, indeed, is the one that expects performance to be in a
19 certain way.

20 And that, again, when you get down to the monetary
21 aspects, the client is providing the funds necessary for that
22 project to move forward.

23 So there had been periods of, to coin Mr. Goldberg's
24 phrase, attitude adjustments, wherein the transition from where
25 they were to where they are, are those that they realize the

4-8
1 client is involved, the client will be involved, and they have
2 told us a number of times in the last couple of years, "We
3 understand you fellows pay the bill. If that's what you want,
4 all right."

5 Q Has this created any serious problem in the working
6 relationships between the two organizations?

7 BY WITNESS OPREA:

8 A I think what it does is provide executive manage-
9 ment of both organizations the opportunity to pursue their
10 management, executive, and psychological prowess with one
11 another, to assure that when you are forcing, or position your-
12 self to extoll them to do things a certain way, and whereby they
13 might interpret you as being demanding, or being in a table-
14 pounding mood, without physically doing it but you are doing
15 it verbally and in a way of getting them to understand their
16 responsibilities to the client. I think that is where the
17 concern usually comes, because it has been a changing era for
18 industry.

19 The last -- I was going to say ten years, but I
20 think it really started within the last eight years, the period
21 of more intense involvement on utilities had been one whereby a
22 number of A&E contractors somewhat got confused by the changing
23 roles, where the industries prior to that time were in a more
24 docile, I guess, permissive role of just monitoring, and things
25 that you planned and things that you expected to take place

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1 kind of did take place in a routine fashion. You could plan
2 for them. You could schedule for them. And within a very
3 set period of time on either side of your target date things
4 had materialized.

5 But there is such a tremendous amount of
6 uncertainty today, and a number of things that take place in
7 the industrial or in a business climate that are beyond your
8 control that there is unsureness. And, as a result of that
9 unsureness, because we as utility executives answer to our
10 board, we answer to the people we serve, which first are the
11 rate payers, and, of course, secondarily, are the people that
12 own equity in our company.

13 So we have a fiduciary responsibility to exercise
14 all these areas, and by so recognizing those responsibilities
15 we throw ourselves in a breach to assure that things are
16 happening beneficially for that company, beneficially for those
17 that we serve.

18 Therefore, we get more involved, is the bottom
19 line to it.

20 Q Do you think the actions of the NRC in issuing a
21 Show Cause Order was justified?

22 BY WITNESS OPREA:

23 A Well, I guess in hindsight when I look back, at
24 first I was, as I mentioned earlier, heavily shocked. I was.
25 "Heavily" not "heavenly."

4-10

1 (Laughter.)

2 WITNESS OPREA: I didn't mean to make it look like
3 an ethereal of a sort, but I was heally shocked by the entire
4 makeup of the Notice of Violation and Show Cause.

5 I did expect non-compliances. I did expect some
6 sort of a penalty, whether it was an administrative, or perhaps
7 even a monetary penalty to be superimposed upon us, but I did
8 not expect the Show Cause Items and the severity of what really
9 showed up in the overall results of 79-19.

10 Of course, the natural tendency at the outset to
11 review them, as I say, we are straining at gnats, we are
12 splitting at hairs. What we have here is kind of an overburdened
13 candle with another piece of straw, and the intent was to look
14 at those areas that we felt that may have been somewhat
15 insignificant, and maybe fight them, to try to take the time
16 out to say, "Look, fellows, we think you are wrong. You are
17 right in these areas, but these things are marginal. We don't
18 think that you have full justification."

19 But the bottom line of the whole thing was that was
20 a need for a real honest to goodness review of the effectiveness
21 of the quality assurance program. I think that's what it was
22 all about. It was a need to look at the quality assurance
23 program in a positive way, and in a thorough way to make sure
24 that all the precepts, the precepts related to the criteria in
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4-11 1 Appendix B, are fully embraced and understood, and recognized
2 by everybody involved in the project and those that support
3 it.

4 I think it was a very helpful thing. I can't say
5 it was totally justified from our standpoint, but it was a very
6 helpful position, and, indeed, focuses on the need to do
7 something about our quality assurance program, to beef it up,
8 to strong it up, to strengthen it, and, of course, it focuses
9 another important thing, that there were certain things that
10 we thought at that time that were missing, but we didn't know
11 they were missing that were important to allow management to
12 have decisive tools that they needed to evaluate the program
13 to see whether or not it was functioning properly. To wit, the
14 necessary ingredients that come with analyzing non-conformances,
15 the trendings, some way of being able to put these things in a
16 broad way and identified that there are root causes to these
17 symptoms, that you just don't solve problems; you want to solve
18 the cause and the reason for those problems.

19 And once you get at that very heart of what does
20 exist, you can make sure you can hold them in abeyance. And,
21 perhaps, make sure they don't occur again. So I think it was
22 something that I still looked at with authenticity to focus
23 our attentions on a need to beef up that program. And it
24 served that purpose, and I think it served it well.

25 And I'm not trying to understate the NRC's position

4-12

1 as to what they do, but, on the other hand, I don't want to
2 overstate it, as well.

3 I think it's a program, their inspection put us in
4 a position of reviewing the program in toto.

5 Now, I might also mention that perhaps if the
6 inspection had never taken, we may have found out the very same
7 thing that came out of that inspection, but at a later date.
8 Mainly because, as I indicated in earlier testimony, in '79 I
9 was looking at bringing in a third outside party, an outside
10 auditor or company to audit the entire quality assurance
11 program of the South Texas Project.

12 And Mr. Amaral or Bechtel would have been brought
13 on board irrespective of what happened to 79-19. If that had
14 never happened, in all probability we would have had the
15 beginning of the outside audit with Bechtel within almost the
16 same time period, maybe off by 30 days or 45 days, but we still
17 would have had it, because we were pursuing that particular
18 avenue.

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5-1 1 Q You were pursuing that already before the
ed 2 show cause?

3 BY WITNESS CPREA:

4 A Oh, yes, sir, we were talking about it in
5 mid-year 1979.

6 My big problem was that when looking at outside
7 parties, you always end up with consultants, and I had
8 a real problem, and I guess if I hadn't had that problem
9 in mid-year '79 or towards, say, the cross period between
10 the third and fourth quarter of '79, we probably would
11 have had him on board.

12 But in all honesty, I was concerned with bringing
13 consultants on board, because in looking at the qualification
14 of the consultants, knowing that a number of the people
15 that each of them had come from industry, these were people
16 that saw the work out of their ivory towers and get out
17 there based on their understanding of the criteria and
18 what they have seen other people do.

19 But my concern was, have these people absolutely
20 been involved, first, in the doing, which is the engineering
21 and the building of these projects, as well as have they
22 been actively involved in quality assurance programs.

23 The more and more I thought about it, the
24 more and more I said to myself, it seems logical to me
25 that the guys that engineer and build them, that also

5-2 1 have inspection responsibilities, can give you the greatest
2 insights.

3 That's when I finally decided, after looking
4 at the lists of all the nuclear powerplants that various
5 A&E contractors had built, and I compared the Stone &
6 Webster's, the EBASCO's, the Bechtel's, Daniels' and Jones',
7 that Bechtel won.

8 They had much more experience building 29
9 different projects, probably in number, somewhere around
10 40-some-odd individual nuclear units; and I said good
11 gosh, looking at that broad experience, they have engineered,
12 they have built, they have had quality assurance, quality
13 control responsibilities. I ought to be able to get the
14 best outside audit from those people because they've been
15 there. They've had hands-on experience and that's what
16 I need. I need the practitioner's viewpoint. I don't
17 need the empirical or maybe even what I might broach,
18 not seriously at a point in a severe sense, a theoretical
19 viewpoint.

20 You know, many times consultants like to work
21 at empirical, theoretical levels, and feel that with that
22 and a bit of philosophy you can apply to an organization
23 that represents material, that represents people, that
24 represents time, that represents problems, that represents
25 human frailties.

5-3

1 You know, these are the practical world we
2 live in, and that's why I wanted a man with the hands-
3 on experience to give us the practical viewpoint as to
4 what do you have or what do you not have?

5 Q In retrospect, do you think this show-cause
6 order was helpful or beneficial from the company's point
7 of view?

8 BY WITNESS OPREA:

9 A The audit, sir?

10 Q The whole incident, the whole episode.

11 BY WITNESS OPREA:

12 A Well, I think it was highly beneficial.

13 Q Would it be fair to say that the NRC got your
14 attention in the same sense that we were talking about
15 earlier?

16 BY WITNESS OPREA:

17 A They twisted my tail and they lowered the
18 boom, so to speak.

19 Q In the context of all that's happened, Mr.
20 Oprea, how do you view the occurrences, like some of the
21 current reports, 81-11? Do you view these as a failure
22 of the program or not?

23 What is your perception of these now?

24 BY WITNESS OPREA:

25 A Well, again, any malfunction in any part of

5-4 1 my organization or in a project that we have, I am concerned
2 about.

3 First, to put the 81-11 into perspective,
4 when I got involved in it, and right after the exit interview,
5 and we had the further investigation by Brown & Root and
6 maintaining a real close contact with Mr. Grote on this,
7 it was obvious to me that first what we had was perhaps
8 a number of managerial and administrative problems being
9 passed on to NRC for them to investigate and to pursue.

10 Of course, my consternation and concern was
11 one whereby that that dilutes the effort of NRC, as well
12 as causes us problems in regard to maintaining proper
13 discipline on the project, when if somebody has a personnel
14 problem or they might even have a social problem of a
15 sort, they are going to run to NRC and talk to NRC about
16 that and expect NRC to solve it for them.

17 That's the problem of management and that's
18 why we have management people on board, to solve those
19 problems.

20 The problem in 81-11, of course, is not safety
21 related. These are non-safety, but it was one that I
22 look at as a moral issue, that if there was an intent,
23 whether it's safety or non-safety, on the part of anybody,
24 to be deceptive, to be untruthful and such, that's a problem
25 because that could show up in any place, once we go on

5-5 1 with safety type work.

2 Now, like in any organization where you have
3 on site at that time well over 3,000 people, you are going
4 to have certain isolated incidents that occur.

5 We're not going to be able to have a letter-
6 perfect program that's going to be in a position to be
7 able to discern every possible infraction that takes place.

8 What we have done through the program we have
9 embarked upon is to minimize the effect of that; and,
10 of course, the result of 81-11 is that we recognize, and
11 in fact, what Brown & Root did relative to going back
12 out in the field and looking in particular whether or
13 not we have any other incidents or potential incidents
14 such as that, was based on questions I asked Mr. Grote
15 after the interview -- and I guess it was another exit
16 interview that we had with Mr. Collins from Region IV,
17 and several members of the Region IV Staff, that pertained
18 to 81-11, when he came to my office and we had that meeting
19 with Brown & Root and Region IV and several of my people.

20 The question I asked is, is it a symptomatic
21 problem? Is this something that goes far beyond this
22 one area, or is this something that is in other places
23 of the organization, and how do we go about assuring ourselves
24 that if we have any more of these isolated instances that
25 we nip them in the bud before they get started.

5-6 1 But we have to be assured that if there is
2 any semblance of what we see as a result of this electrical
3 termination shack problem is elsewhere, we want to find
4 out about it.

5 In that course, in discussing this with Grote
6 and others, you know, I just raised the question, how
7 do we go about doing it?

8 In the course of his investigation, when he
9 got to the bottom line, he delegated that to the field
10 people: Let's go about finding out whether or not we
11 have the perception that there are any additional problems
12 such as that on site, which is being handled through the
13 site manager and other people that work for him.

14 They have talked already, as I understand,
15 to a number of supervisory people. They are going to
16 be talking to some of the craft people, as well.

17 They are concerned, "they" being Brown & Root.
18 They are concerned about the fact that if there is a problem
19 out there in any area, safety or non-safety, the management
20 of HL&P and/or Brown & Root ought to know about these
21 so that we can take the action necessary to correct the
22 problem.

23 The thing that I guess causes me the greatest
24 amount of dismay is the fact that if the problem is out
25 there and somebody knows about it, it kind of simmers

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and smolders for five or six months, and then all of a sudden it surfaces as a special NRC investigation.

I've been of the belief in all the years that I've spent in this business and the few years that I spent in the Navy, is that anytime you have the making of a problem, get that out on the tabletop so we can solve it, because a small problem today, although it stays a small problem over the next five or six weeks or six months, in the mind of the individual that perceives that it's a problem allows it to take on grotesque, unfortunate proportions, and before long it becomes a threatening monster.

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5-8 1 That is where the people from an emotional
2 standpoint react, and I'm just a believer that we solve
3 them quickly.

4 You do it by having open communications. We
5 try to instill this. We try to encourage it.

6 We do everything we can. We've done that,
7 and I might mention, in recent weeks through documents
8 that Brown & Root has put up on various bulletin boards
9 and put in the paycheck envelopes of their employees,
10 and we have done it, as well as, I think, the end of May
11 where we had a document that we developed that our President
12 Don Jordan signed, which, in essence, elicits the help
13 and the aid and the openness on the part of all people
14 employed in the project.

15 That it's a policy. It's one where we are
16 not going to discriminate. We're interested in solving
17 the problems.

18 I could even go back, way back to the first
19 notification that went up on the bulletin boards when
20 Ernest Volgenou was director of I&E.

21 He and I had a meeting in Washington and we
22 were talking about these different items. It was in a
23 matter of several months, I believe.

24 I believe all the licensees for nuclear powerplants
25 received a letter from him talking about putting up

5-9 1 a notice.

2 It was a voluntary thing, putting up a notice
3 relative to if anybody had any problems with what was
4 taking place on the project that had any safety-related
5 consequences to call toll-free and the Region's number
6 was down there.

7 I reviewed that and I said, "My God," I said,
8 "There's nothing wrong with this, because I want to know
9 the problem just as readily as NRC does."

10 I said, "If we can find out problems early
11 in the life of a problem taking shape and form, then we
12 certainly can put those to rest very quickly, because
13 whatever people can tell me can help us solve a problem
14 that might at a later date be much more difficult to solve."

15 So I thought this was just great. I recognize
16 that any calls that we got and I recognize that NRC, likewise,
17 got some bogus calls, as well as some realistic, honest-
18 to-goodness calls that did identify problems.

19 So I had no problems with that at all and
20 I still don't.

21 I believe very firmly that we still have to
22 maintain that position.

23 JUDGE LAMB: Thank you. That's all I have.

24 BY JUDGE BECHHOEFER:

25 Q I just want to pick up a few loose ends.

5-10 1 In the discussion of -- We've had considerable
2 discussion of the nonconformance reports and the FEA's
3 and the field change requests.

4 I would like a little more clarification,
5 and this can either be from Mr. Briskin or Mr. Frazar,
6 about why a field change request still couldn't be used
7 instead of a nonconformance report?

8 Assume this situation; could this happen?
9 Could work be carried out by a construction worker which
10 doesn't quite meet specifications, but instead of -- and
11 immediately after the fact, a field change request is
12 requested.

13 Say it's approved in the field. Why couldn't
14 that situation happen?

15 BY WITNESS FRAZAR:

16 A Judge Bechhoefer, field change request is
17 not a document that excepts anything.

18 That is a simple tool used for construction
19 to communicate to engineering a need that they perceive
20 in the field.

21 Engineering subsequently has to evaluate that
22 request and decide whether a change to the design is in
23 order or not.

24 Q I was assuming like a design change notice
25 would be issued on a field basis.

5-11

1 I had said that the field change request --
2 the change had been approved.

3 BY WITNESS FRAZAR:

4 A. If I can continue for a second?

5 Q. Right. Sure.

6 BY WITNESS FRAZAR:

7 A. Maybe if we could get some eye contact here,
8 I could --

9 Q. I'll sit up straighter.

10 BY WITNESS FRAZAR:

11 A. A nonconformance report is used to identify
12 nonconformances to the design requirements at the time
13 that the item is presented for acceptance by QC, and that's
14 in every case.

15 When an inspector inspects the work to determine
16 whether or not it conforms to the design requirements
17 and when he identifies that indeed the work does not conform
18 to the design requirements, there is only one form on
19 the project that is used to identify that problem, and
20 that's a nonconformance report.

21 Now, in the dispositioning of that nonconformance
22 report, of course, we may arrive at a design change notice
23 ultimately, when engineering goes to consider how the
24 problem will be fixed, because we may have one of these
25 conditions that is a use-as-is condition, for example,

5-12

1 where in order for the item to then be accepted in the
2 condition, even though it doesn't meet the design requirements
3 of the original document, there may need to be a design
4 change notice prepared to change the criteria to show
5 that that condition is acceptable.

6 Now, a field change request does not serve
7 that purpose.

8 A field change request is only a document
9 that can be used by construction to request engineering
10 to produce a change to design before the item is presented
11 for acceptance by QC.

12 So it's a very clear delineation, and the
13 point in time is when QC is asked to inspect and accept
14 that piece of work.

15 Q Could the field change request be initiated
16 after the work was done, or before it was ready for inspection,
17 or presented for inspection?

18 BY WITNESS FRAZAR:

19 A If construction is in the process of doing
20 the work and has not yet presented it for acceptance by
21 QC, and they recognize that they cannot conform to whatever
22 the design requirements are that have been provided to
23 them from engineering, then they can use a field change
24 request to ask engineering to change the design so that
25 they can complete their work and then submit that work

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for acceptance by QC.

The work is not completed until it has been presented to QC -- until it is presented to QC for inspection.

It's still in-work. It's still being worked on.

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16-1 1 BY JUDGE BECHHOEFER:

2 Q I see. So the fact that it may have been physically
3 accomplished would not mean that the work is complete?

4 BY WITNESS FRAZAR:

5 A Yes, sir. That's correct. It's still under the
6 control of construction. They still are processing the work.
7 They still are not completed with the construction activities
8 until they have said, "Okay, we're through with it and now QC,
9 you come and do your inspections and you tell us whether or not
10 we have met the acceptance criteria identified in the design
11 document."

12 Q But in the situation that I posed, if the work
13 physically had been accomplished but it didn't conform to
14 specifications in some way and then a change were requested,
15 if it were -- if the change were not approved by the engineering
16 staff, then the work would have to be redone, but if it were
17 approved, then it could -- assuming on an "as is" basis -- then
18 it could qualify and be properly presented for inspection?

19 BY WITNESS FRAZAR:

20 A Yes. Then it could be presented for inspection,
21 and the inspection people would perform their inspection
22 according to the revised acceptance criteria that engineering
23 had ruled upon in considering the field change request.

24 Q Now, let's see, on Page 79 -- we're turning to a
25 different subject now -- there's a statement under where it says

16-2

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1 fourth, it says, "Because NRC questioned the qualifications of
2 some B&R QA/QC personnel," who actually did -- whose credentials
3 did NRC identify, or was this more or less of a general type of
4 comment by NRC?

5 Did NRC name names?

6 BY WITNESS FRAZAR:

7 A There are actually two things rolled into that
8 particular statement, Judge Bechhoefer.

9 First, in the Notice of Violation, one of the items
10 of noncompliance, and I forget the number at this point, but one
11 of the items of noncompliance identified that there were
12 Brown & Root and Pittsburgh Testing Laboratory quality control
13 inspectors who appeared not to have the requisite credentials
14 at the time that they were certified to perform QC inspections.

15 Additionally, the broad issue of experience and
16 that sort of thing in the QA organization as a whole was
17 considered in response to the Show Cause.

18 This specific items here deals with the first issue,
19 which is the item of noncompliance, and I'm shown the number
20 here, it's A8 of the Notice of Violation.

21 That item was identified to us in the December 28th
22 meeting in the regional office that there were some of the QC
23 inspectors who appeared not to have the proper qualifications,
24 and that's the reason this item was included in the nine-point
25 program + it's discussed here.

16-3

1 Remember that this portion of the testimony,
2 Judge Bechhoefer, deals with the nine-point program which
3 preceded the issuance of both the 79-19 report and the
4 Show Cause Order.

5 Q Well, did NRC at that meeting name names?

6 BY WITNESS FRAZAR:

7 A No, sir, they did not name names. They just
8 indicated to us that there were some questions relative to
9 qualifications and certifications of some of the personnel
10 performing QC inspections, so we took that as enough information
11 to launch our own analysis of the problem.

12 Q And what happened? I mean, what was the result
13 of that? Was further training given to them? Is that the
14 further training that you've referred to?

15 BY WITNESS FRAZAR:

16 A If I can have just a moment.

17 Q Sure.

18 BY WITNESS FRAZAR:

19 A I'd like to refresh my memory on our response to
20 Item A8 of the Notice of Violation, because I believe that
21 summarizes the actions that we took.

22 There were several actions that were taken. First
23 of all, we were able to confirm that there were some problems
24 in the area of personnel certifications in that certain
25 education or training requirements appeared not to have been

16-4 1 met, and our approach to the problem was twofold, as is noted
2 in our response.

3 One is that we -- for those specific individuals
4 where there was a question, we provided additional training
5 and re-certified those individuals after the training had been
6 provided.

7 And additionally, we revised the employment practices
8 of the companies to go back and verify education and work
9 experience to the greatest extent that we could prior to
10 putting a person on board as a new employee, so that was the
11 recurrence control that we -- measure that we put into effect
12 to preclude that from happening again.

13 Q Now, on a somewhat related question, on Page 81,
14 approximately at Line 10, what if anything happened to the one
15 QC inspector who's referred to there?

16 BY WITNESS FRAZAR:

17 A You know, Judge Bechhoefer, I think I was asked
18 that question yesterday and I was not able to answer it then
19 and I can't answer it now.

20 I really don't know. I'd have to do some question
21 asking to determine what happened to that one individual QC
22 inspector.

23 Q Turning to the -- well, stop work authority, I'll
24 just refer to it broadly, which is discussed at I guess
25 Pages 86 and 87, I think there was some testimony that there was

16-5

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1 a clarification of authority of these -- of various persons,
2 but before 79-19 did QA/QC personnel know that each of them
3 had emergency stop work authority?

4 BY WITNESS FRAZAR:

5 A Judge Bechhoefer, emergency stop work authority
6 was not a term that was used on our project prior to our
7 development of our procedures in response to the Show Cause
8 Order.

9 Our people at the jobsite -- I'm talking about
10 Houston Lighting & Power -- certainly knew that there was
11 stop work authority resident in the site QA group, and we had
12 a procedure that prescribed how that stop work authority was
13 to be imposed.

14 The procedure was just not very clear about levels
15 lower than the site QA supervisor, which was the individual
16 at the top of the organization, so to that extent I guess they
17 probably did not have it clearly laid out to them in procedural
18 terms that they had stop work authority on an emergency basis
19 that they could impose right there in the field.

20 That was the primary step that we took to correct
21 that as far as the HL&P people went.

22 Q And that was the source of confusion I believe you
23 talked about, is that correct?

24 BY WITNESS FRAZAR:

25 A Yes, sir. That's correct.

16-6

1 Q And both before and after, did and do the
2 construction workers know that there is general emergency
3 stop work authority in QA/QC personnel?

4 BY WITNESS FRAZAR:

5 A Yes, sir. The procedures that we've issued on
6 the project in which people are trained, clearly lay out the
7 authority of the people in the organizations relative to the
8 issue of stop work.

9 Q Well, do the construction workers know this? Or
10 only the QA/QC people?

11 BY WITNESS FRAZAR:

12 A The construction people know that, too.

13 Q Right. And I take it that this is done more clearly
14 or positively now than it was before 79-19.

15 BY WITNESS FRAZAR:

16 A I'm not sure I know what you mean by the question.
17 If you could --

18 Q Well, the construction workers know about it now
19 more clearly than they did before the 79-19 investigation?

20 BY WITNESS FRAZAR:

21 A I think it's been emphasized more heavily since
22 79-19 than it was in the past. I think that -- my personal
23 experience is that the construction people knew that stop work
24 authority existed in the QA organization prior to 79-19, and
25 as a matter of fact, there were occasions when that stop work

16-7

1 authority was exercised to stop the construction activities.

2 I think the problem was with regard to what levels
3 of the organization had that stop work authority and how it was
4 to be imposed, and that's what we tried to clear up through
5 the procedure changes.

6 Q Right. Do you think any of the elements of friction
7 between QA/QC people and construction people were caused by a
8 failure of construction to realize fully that all QA/QC people
9 had this stop work authority -- emergency stop work authority?

10 BY WITNESS FRAZAR:

11 A No, sir. I don't think that there was any -- that
12 the friction between the workers that may have existed would
13 have been related to a failure to recognize that.

14 I think that that was related to other matters.

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1 BY JUDGE BECCHOEFER:

2 Q And there wouldn't be a construction worker saying,
3 "Well, you don't have authority to tell me to do this, or to
4 stop work; go get the supervisor or go get the head of" --

5 BY WITNESS FRAZAR:

6 A I guess hypothetically that could have occurred.
7 I don't know of any place where that did occur.

8 I think that the disagreements, as we've discussed
9 at some length, between construction and QC personnel, in my
10 opinion, have been more related to the acceptance criteria
11 for the work involved and how to get that acceptance criteria
12 implemented, and also a feeling on the part of the QC inspectors,
13 apparently, that they may not have been properly supported by
14 their own supervision and management.

15 Q All right. Let's see, Page 112, where there's a
16 discussion of the lack of sufficient staffing levels, would
17 Houston do anything about requiring or encouraging Brown & Root
18 to upgrade their staffing levels, or increase their staffing
19 levels, I should say?

20 BY WITNESS FRAZAR:

21 A Did you say were they?

22 Q Would they; would Houston -- well, first, can
23 Houston and would Houston encourage Brown & Root to hire more
24 people if necessary?

25 / / /

16-9

1 BY WITNESS FRAZAR:

2 A Absolutely. I think that there have been several
3 occasions where I've had discussions with Brown & Root manage-
4 ment about hiring additional personnel into their organization
5 and hiring people that have more experience or have different
6 experience than those that might be working in a particular
7 part of the organization.

8 Q You wouldn't have to just await the results and if
9 the results were poor then say, "You've got to do it over again,"
10 but you could say, "You're not going to get good results unless
11 you hire more people." You could try that device as well, on
12 an ongoing basis, this is.

13 BY WITNESS FRAZAR:

14 A No, sir. If I perceived that there was a need for
15 an upgraded staff in a particular area, and that need was
16 identified and the results were not forthcoming, then I had
17 other recourse through management ranks to get the pressure
18 put on to either hire people or even bring in contractor
19 personnel.

20 I think in our response to the Show Cause Order
21 we brought in a lot of people to beef up the staffing level
22 immediately, while Brown & Root was going about the business of
23 hiring their own permanent people to fill the organization out.

24 Q Some of the discussions we've had on 81-11, for
25 instance, the series of notes that we received, there was some

16-10 1 notations that certain persons were to be fired, and I think
2 it was on the last page of the series of notes that were put
3 in as CEU Exhibit 11.

4 I just wondered whether the decisions to fire were
5 made wholly by Brown & Root or partially by Houston, or were
6 those decisions discussed before they were actually made, or
7 effectuated, I should say?

8 BY WITNESS OPREA:

9 A Judge Bechhoefer, the notes you're referring to are
10 my notes.

11 Q Right.

12 BY WITNESS OPREA:

13 A And that was the last page of my notes.

14 During the course of the investigation that Brown &
15 Root pursued, I was in very active contact with Mr. Grote. I
16 knew what he was doing, and we had a lot of discussion in
17 regard to what would take place or could take place.

18 I gave certain questions to him that solicited
19 responses to make me feel comfortable that they were thorough
20 enough on the investigation, and during the course of the
21 investigation it was quite obvious to both he and myself,
22 without us even saying anything to one another, that we were
23 moving very quickly towards the removal of four people from
24 the project.

25 So at the time when Mr. Grote felt that he had

16-11

1 completed his investigation, and I remember I was asking him
2 at what point will that place.

3 He said, "Well, I have another two people to talk
4 to and there's another polygraph being taken," like on Friday,
5 April -- the latter part of April, anyhow, he said, "I'll be
6 ready to talk to you again."

7 I said, "Fine."

8 So we went through our conversation and he said,
9 "The bottom line to all of this, George" -- and I'm kind of
10 paraphrasing all this --

11 Q Right.

12 BY WITNESS OPREA:

13 A He said, "We're going to fire Frankum. We're
14 going to fire Hawkins, and we're going to go ahead and
15 terminate from the project Spec Stewart and James Kay," I
16 believe it was.

17 And it was basically a decision that I guess was
18 joint, because we were both drawing the same conclusions, but
19 they told me what they felt had to be done, and I said I
20 concur, and that was it.

21 Q Did the same or similar process occur when -- with
22 respect to Mr. Swayze? Or was that a little different?

23 BY WITNESS OPREA:

24 A Yes, sir. If you recall, I indicated to you that
25 I believe the removal of Mr. Swayze from the project occurred

16-12 1 at the time that the quality assurance answered to Mr. Turner,
2 and Mr. Turner did keep me informed.

3 Now, I did not have -- I don't recall having any
4 direct dialogue with Brown & Root management on the subject,
5 because this was handled through Mr. Turner's office and his
6 staff with Brown & Root, but during the course of what Brown &
7 Root was doing in regard to Mr. Swayze, Mr. Turner was keeping
8 me apprised, and I was tracking it, and it was quite obvious
9 that certain things were going to happen at a given date, and
10 before they happened I vaguely remember that Mr. Turner did
11 indicate to me that it looks like Mr. Swayze is going to be
12 terminated because he was not being cooperative at all.

13 And at the point in time when it took place he
14 notified me indeed that he was terminated.

15 Now, Mr. Turner, perhaps, can give you a little
16 better feel for how he independently and more actively had
17 been involved.

18 Q Okay. Would you wish to do so?

19 BY WITNESS TURNER:

20 A Yes. I think one of the basic differences, Judge,
21 was that in the Swayze matter I don't think there was anywhere
22 near the dialogue between Brown & Root and Houston that there was
23 in the subject matter that we just -- Mr. Oprea just finished
24 discussing.

25 The decision to terminate Mr. Swayze was made by

16-13

1 Brown & Root, and our being made aware of it was after the fact.
2 We didn't participate in that at all.

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7-1 1 Q All right.

ed 2 Just as a general question, do any of you
3 know have there been physical altercations between QA/QC
4 people and construction people, other than those that
5 we've discussed about in detail, either through testimony
6 or in the Staff inspection reports?

7 Have there been other such incidents where
8 there have been any disciplinary action taken against
9 either of the individuals involved, to your knowledge,
10 or have we pretty much covered the waterfront in these
11 specific incidents which we've talked about?

12 BY WITNESS OPREA:

13 A The knowledge that I have, Judge Bechhoefer,
14 is that we have pretty well covered all the incidents
15 that have occurred on the project since its inception
16 to the present.

17 Not being involved in what I would call in
18 the battlefield itself, and I say that in a way of saying
19 the battlefield is out there on the project where the
20 people are the doers working in the trenches doing things,
21 and I'm not saying it from the standpoint of physical
22 confrontation; but perhaps Mr. Frazar has a better feel
23 for it on a more intimate basis.

24 BY WITNESS FRAZAR:

25 A Judge Bechhoefer, it's hard for me to answer

7-2 1 your question because it seems to be a pretty broad question.

2 Q Well, it is. I'm just trying to see if there's
3 any loose ends that we might have missed.

4 BY WITNESS FRAZAR:

5 A Well, there are about 3500 or so people over
6 a long period of time that work on the job site.

7 I know the issues that we have honed in on
8 during the process of these hearings have been mostly
9 those that we felt were related directly to confrontations
10 between QC and construction and even to the point of physical
11 altercations.

12 I believe that there may have been some other
13 disciplinary actions taken on the job site with respect
14 to other matters that did not relate to those kinds of
15 confrontations.

16 Q I was mostly interested in the QA/QC and construction.

17 BY WITNESS FRAZAR:

18 A I don't know of any others, other than those
19 that we have already discussed.

20 Q All right.

21 BY WITNESS FRAZAR:

22 A I might add that there is a panel of testimony
23 of Mr. Wilson and Warnick and Singleton, I believe, that
24 are going to take up these issues in more detail.

25 They may have knowledge that I don't

7-3 1 Q Well, I intend to ask them, too.

2 There was some testimony about remarks which
3 might be construed as not approving of personnel contacting
4 NRC, and some of those were referred to as perhaps jocular
5 remarks.

6 Were those remarks of a type comparable to
7 what, for instance, the FAA tells passengers on airlines
8 not to make when they are going through the security gates?

9 BY WITNESS FRAZAR:

10 A I think I was the one who said that there
11 may have been some jocular nature in some of those remarks.

12 I can't state that that's the case.

13 That was in answer to a question from Mr. Reis,
14 and I suggested, you know, that we might ask the gentleman
15 who was supposed to have said that to find out how he
16 intended it or how he thought he said it.

17 I know in the case of Mr. Warnick, who I think
18 was alleged to have said something to the effect that,
19 "We know when you call the NRC," or, "We think the NRC
20 is getting tired of getting your phone calls," or whatever.

21 I spoke with Mr. Warnick about that, and he
22 certainly didn't intend it in the way that, apparently,
23 the allegers perceived it.

24 His intent was more that, "We are management.
25 We are here. We are interested in finding out about

7-4
1 problems. We are interesting in solving the problems.
2 The NRC has been getting a lot of phone calls, and we
3 know as well as anybody that the NRC has limited resources
4 in terms of their human resources."

5 It was in that context that he said, "Look,
6 we are here to solve problems. You can bring your problems
7 to us."

8 That was the kind of context, I believe, that
9 he intended the remarks to be taken.

10 You might ask him about that when he appears
11 as a witness.

12 Certainly, we don't think that -- We have
13 never had any kind of a policy on the project that said
14 that people can't contact or shouldn't contact the NRC.

15 They are welcome to do that at any time.

16 Q Is there any way that the thought can be instilled
17 in personnel that they ought to perhaps watch the remarks
18 they make to make sure they are not misconstrued, at least
19 in supervisory personnel?

20 BY WITNESS FRAZAR:

21 A I think we have taken very affirmative steps
22 to do that.

23 There is a policy that has been posted around
24 the project that I believe was referred to in earlier
25 testimony that was prepared recently.

17-5
1 It's a written policy that talks about seriousness
2 of matters on the project, and also the discussions that
3 I've held with people on the site, the discussions that
4 other management personnel in my organization and in the
5 Brown & Root organization have had on the project.

6 We treat very austerely any matters pertaining
7 to the proper regulation of our project.

8 Q Turning to a different subject, on page . ,
9 Answer 28, there was -- Apparently, the NRC at a January
10 24th meeting, expressed the view that placement of concrete
11 was not being performed in accordance with project procedures.

12 My question is, was the NRC's statement based
13 on the results of what was referred to earlier as a December
14 28th program, which was designed to improve just this
15 situation? That's as I understand it, at least.

16 BY WITNESS OPREA:

17 A I believe this January 24th meeting was the
18 exit interview to the NRC investigation of the project,
19 and it represents a degree of continuum from our December
20 22nd, 28th meeting, at which time at those earlier meetings
21 discussions were held relative to the placement of concrete
22 not being in accordance with procedures, and several other
23 related items.

24 The 24th meeting was a review of the findings
25 that the investigation team had on the project, which

7-6 1 included that information in somewhat greater detail than
2 what we received on the 22nd and 28th from Mr. Seyrrit
3 and his staff.

4 So this covered welding, this covered procedures,
5 audits, concrete, trend analysis, nonconformance reports,
6 the FREA's, et cetera.

7 Q But I take it it did not include the results
8 of the commitment which is stated on page 20 to have been
9 made at the December 28th meeting?

10 I take it those had not actually gone into
11 effect; is that correct?

12 BY WITNESS OPREA:

13 A The nine-point program went into effect very
14 shortly after the first of the year 1980, but NRC did
15 not respond to any of those.

16 They were going to wait and allow us to put
17 those in place and then come back at a subsequent time.

18 So this January 24th was not addressing any
19 of those issues that we identified in our nine-point letter
20 responding to our December 28th meeting.

21 Q And it in no way can be construed to be a
22 statement that the -- or portions of the nine-point program
23 weren't good enough?

24 BY WITNESS OPREA:

25 A Oh, no. No, sir.

7-7
1 Q I have one final question at page 71, the
2 second-to-last line, there's a sentence that starts, "Although
3 HL&P does not participate directly on the Change Review
4 Board."

5 Does the word "although" indicate some question
6 or some doubt whether or not HL&P should do so?

7 BY WITNESS BRISKIN:

8 A Absolutely not.

9 JUDGE BECHHOEFER: Thank you. That's all
10 the questions I have.

11 (Bench conference.)

12 JUDGE BECHHOEFER: That's all the questions
13 the Board has.

14 Mr. Newman, do you have redirect?

15 Let's have a five-minute break.

16 (Recess taken.)
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1 JUDGE BECHHOEFER: Back on the record.

2 You may proceed, Mr. Axelrad.

3 MR. AXELRAD: Yes. We only have one question or
4 two, Mr. Chairman.

5 REDIRECT EXAMINATION

6 BY MR. AXLERAD:

7 Q Mr. Turner, back on June 1st, I believe, you were
8 asked a question as to how Brown & Root estimated percentage
9 of engineering complete at the time that you went out in the
10 field. Do you want to clarify your response to that question
11 at that time?

12 BY WITNESS TURNER:

13 A Yes. In my response to that question, I believe
14 at that time I said there were many ways to measure the percent
15 of engineering. They could measure it by the amount of
16 manhours expended, some people did it by physical accomplishment,
17 some AE's did it by both. I believe I stated in the case of
18 Brown & Root that they were doing it by the number of drawings,
19 and that is not the case.

20 When they went to the field, they were doing it by
21 the number of manhours expended, and I think that should be
22 made clear.

23 MR. AXELRAD: That's the only question we have
24 on redirect, Mr. Chairman.

25 JUDGE BECHHOEFER: Recross, Mr. Jordan?

1 MR. JORDAN: Yes, sir.

2 RECROSS-EXAMINATION

3 BY MR. JORDAN:

4 Q Mr. Oprea, in, I Believe, talking with Dr. Lamb,
5 you discussed the fiduciary responsibility that you have to
6 your stockholders and your rate payers and so on. What
7 I would like to ask you is whether in your oversight in the
8 management on the South Texas Project you have -- let me ask
9 first -- whether you have consulted your legal advisors concerning
10 HL&P's right and powers under your contract with Brown & Root
11 to have Brown & Root absorb the cost of various repairs and
12 reworks involved in 79-11 and subsequent --

13 MR. COWAN: I object to that, Your Honor, on two
14 grounds. First of all, it's attorney-client privilege, and
15 second of all it goes right to the question of commercial
16 relationship of who pays for what in connection with the
17 repair costs and Your Honors previously ruled that is not a
18 proper subject of inquiry in this proceeding.

19 JUDGE BECHHOEFER: Right.

20 MR. REIS: The Staff also objects on the grounds
21 of relevance. We don't think it pertains to the issues in this
22 proceeding.

23 JUDGE BECHHOEFER: This particular question --

24 MR. REIS: It is generally Beyond the scope.

25 JUDGE BECHHOEFER: Right. Sustained.

1 MR. JORDAN: I was not allowed to argue. May I
2 make the point so that we may have it in the record for appeal?

3 JUDGE BECHHOEFER: Yes, but it's clear. We viewed
4 it clearly beyond the scope of --

5 MR. JORDAN: So that we may have this matter on the
6 record for purposes of appeal, the question here, in large part,
7 aside from the fact that it was gone into on the cross-
8 examination by the Board, which, of course, opened it up --
9 aside from that fact -- the issue here, in large part is
10 HL&P's ability to deal with Brown & Root to require Brown &
11 Root to do the things that it's supposed to do to assure that
12 Brown & Root fulfills the responsibilities that it is supposed
13 to fulfill, and presumably that includes that it has the
14 responsibility to pay for things. Now, if HL&P and Brown &
15 Root have a little deal going where HL&P just passes on its
16 costs to the rate payers and Brown & Root doesn't pick up the
17 costs for which it is responsible, that gets to the core of
18 the relationship.

19 JUDGE BECHHOEFER: Well based upon --

20 MR. JORDAN: I recognize that you have ruled on
21 the matter.

22 JUDGE BECHHOEFER: All right. Well, based on your
23 explanation, it's even more outside the scope of what is at
24 issue in this proceeding.

25 //

18-4

1 BY MR. JORDAN;

2 Q In talking with Both Mr. Hill and Dr. Lamb --
3 I keep saying Dr. Lamb, but I'm not sure if
4 it's Dr. Hill or not. I'm sorry.

5 JUDGE HILL: It is doctor.

6 (Laughter.)

7 Q -- you discussed the choice of Brown & Root as
8 the contractor -- the process through which you chose Brown &
9 Root, the others you considered and so on, did -- at the time
10 that you chose Brown & Root, which was somewhere in 1972, 1973,
11 I gather, had Brown & Root previously done any other construc-
12 tion work for HL&P?

13 BY WITNESS OPREA:

14 A No, sir.

15 Q None at all?

16 BY WITNESS OPREA:

17 A None at all.

18 Q And also discussed throughout much of the testimony,
19 particularly in response to Dr. Lamb, was the matter of HL&P's
20 working with Brown & Root, making decisions it felt -- or
21 relying on Brown & Root to the extent to which that happened,
22 and also discussed at some length was the question of
23 organization AE constructors and whether they should be
24 separate, that kind of issue.

25 I would like to ask whether since you chose

1 Brown & Root for the South Texas Project, has Brown & Root
2 been involved in the construction of a coal plant for HL&P
3 in which HL&P made the decision to replace Brown & Root with
4 another company?

5 BY WITNESS OPREA:

6 A Well, that apparently is a two-part question.
7 First, Brown & Root had been involved in the building of two
8 coal-fired units, W. A. Parish No. 5 and W. A. Parish No. 6.
9 We did not replace Brown & Root by another AE contractor.
10 W. A. Parish No. 7, which was on the same site and adjacent
11 to Units Nos. 5 and 6, was a split contract wherein Bechtel
12 did the engineering and we awarded the construction to EBASCO.
13 That was a completely different project and had no relationship
14 whatsoever to Brown & Root's activities to the W. A. Parish 5
15 and 6 Units.

16 Q You testified that the STP was time short.
17 In other words, I gather that you felt you needed STP in a
18 relatively short period of time. I think you said seven years?

19 BY WITNESS OPREA:

20 A Yes, sir. The original schedule was to have the
21 South Texas Project generating electric energy by the end of
22 1980.

23 Q Um-hum. So that this was a projection in 1973
24 that you felt you needed that plant seven years later?

25 //

1 BY WITNESS OPREA:

2 A That was the projection or I should say the needs
3 of the owners. They wanted it at that point in time, based on
4 what they saw in the making pertaining to gas curtailments
5 and alternate fuels that would be necessary for electric power
6 generation.

7 Q And in addition it related to what they perceived
8 at the time as a growth in electricity demand, did it not?

9 BY WITNESS OPREA:

10 A It was related to that as well as the very high
11 prospect of not being allowed to utilize gas and/or oil in
12 the very near future.

13 (Counsel reviews documents.)

14 Q Mr. Briskin, Mr. Reis and Mr. Sinkin asked you
15 something about the Level 3 schedule. I think Mr. Grote
16 also testified to it at some length. I would just like to
17 get clear on what this thing is. Can you tell us what the
18 Level 3 schedule is?

19 BY WITNESS BRISKIN:

20 A Yes. To put it in perspective, a Level 1 schedule
21 would be something that talked to milestones which would
22 cover somewhat of a logic-type diagram with maybe 150 to 200
23 activities in it, a very high-level schedule.

24 A Level 2 would deal basically with buildings and
25 systems being broken down to a very small degree and perhaps

1 as many as, oh, a thousand to two thousand activities in it in
2 a logic network.

3 A Level 3 gets down to, perhaps, each -- for the
4 piping systems, perhaps, may deal with each line in the
5 piping system in the individual buildings and, depending
6 upon the job, could be multiple tens of thousands of activities
7 to get the job done.

8 Q That sounds like it must be a fairly sophisticated
9 computer thing by the time you get to that, is that correct?

10 BY WITNESS BRISKIN:

11 A Well, it's a series of logic diagrams and the
12 information is put into a computer system and handled through
13 that, and I think that our Level 3 is approximately 30,000
14 activities.

15 Q Now, this is a schedule that is telling you where
16 you're going and, in effect, how to get where you're going?

17 BY WITNESS BRISKIN:

18 A Essentially this is how you get there --

19 Q Okay.

20 BY WITNESS BRISKIN:

21 A -- and this is the key monitoring tool for how
22 you're doing.

23 Q How does this get approved? Can you tell us who
24 approves it?

25 //

1 BY WITNESS BRISKIN:

2 A Yes, it's approved -- whether it be construction
3 or engineering -- it's put together by Brown & Root and HL&P
4 counterparts in both scheduling and, if it's a construction
5 schedule, in the construction organization or reviewing it as
6 it's going together, and then it's accepted.

7 Q Okay. It's accepted by them.

8 Is this for any period of time other than for the
9 next year, or is it for the rest of the project time?

10 BY WITNESS BRISKIN:

11 A Typically the Level 3 deals with -- the Levels 1,
12 2, and 3, deal with the total project. The Level , which is
13 what we call, at times, an intermediate schedule is on this
14 project typically for a year.

15 Q You said, I think to Mr. Reis, that it has been
16 implemented. When was it implemented?

17 BY WITNESS BRISKIN:

18 A Well, we've had various phases of it coming on-
19 line, so to speak, since I've been here. I think we finally
20 got to the point of -- I believe that the final piece of
21 construction schedule was completed in September, I believe,
22 of 1980.

23 Q Okay. Just a couple other things so I understand
24 the full range of this.

25 Now -- you may have answered this basically, but

1 I want to get clear on whether it gets into safety-related
2 areas. Is this a program schedule that facilitates, for example,
3 the procurement of materials that are used in the safety-
4 related areas? I guess you look forward on this schedule to
5 see where you need them and use the schedule to tell when you
6 need safety-related materials?

7 BY WITNESS BRISKIN:

8 A That's essentially correct.

9 Q I assume it would also assist you in assuring
10 that you got safety-related materials when you needed safety-
11 related, and did not end up, for some reason, getting non-
12 safety-related things when you shouldn't be getting that?

13 BY WITNESS BRISKIN:

14 A Could you rephrase that?

15 Q Yes. I think the tailend of it got muddy.

16 It also helps you to assure that when you
17 need safety-related materials in the plant, that that's what
18 you get in your procurement, you don't get nonsafety-related
19 materials?

20 BY WITNESS BRISKIN:

21 A No, I don't think the schedule does that at all.

22 The schedule outlines when we expect to do the
23 work and, therefore, when we need any materials.

24 Q Okay. Now, we've discussed three incidents.
25 I believe it was you, Mr. Oprea, and you were talking with

1 Mr. Reis. One was an incident of a threat with a Magnum,
2 I believe, in the parking lot. Can you tell us when that
3 incident occurred?

4 BY WITNESS BRISKIN:

5 A No, I can't. Mr. Reis brought up that incident,
6 and I don't know the timeframe.

7 BY WITNESS FRAZAR:

8 A Excuse me, Mr. Jordan, I think there may be a
9 confusion factor with regard to your question. There was no
10 threat in the parking lot with a 357 Magnum. I think the
11 allegation was that there was a threat on the job site during
12 some activity out during construction between a construction
13 man and a QC man that he said, hey, I'll meet you in the
14 parking lot and I'll have a 357. So, there was no threat
15 with a weapon or anything like that.

16 Q Okay. So that certainly helps. Do you know when
17 that was, or can you put a year on it? '77? '78? Later?

18 BY WITNESS FRAZAR:

19 A I might be able to if I refer to 79-19 and see
20 if there any dates in the specific allegation, if I can take
21 just a moment to do that.

22 Q Why don't I -- if I can save a little bit of time,
23 the other two incidents that were discussed, and I'm just looking
24 for dates and any corrections to my understanding, if you have
25 them. One was the threatening to throw a QC off the wall,

1 which you described as being a flare-up which apparently
2 flared down, and then also some threatening with a shovel.
3 Those three incidents, if you can dig the dates out.

4 BY WITNESS FRAZAR:

5 A I'll tell you what. I'm going to be in San
6 Antonio next week for the Goldberg/Frazar panel, assuming
7 that we're going to go on. How about if I'm able to get some
8 dates and put those to those at that time for you?

9 Q That will be fine.

10 BY WITNESS FRAZAR:

11 A Also -- no. That's fine. Okay.

12 MR. AXELRAD: Mr. Chairman, if we may, to clarify
13 something, it's my understanding, and I may be wrong, but all
14 that Mr. Frazar is referring to are materials or alleged
15 incidents which are referred to in 79-19. All that Mr. Frazar
16 is saying is that if he looks at 79-19 he can find the answers
17 and those answers, I presume, can be found by Counsel out of
18 79-19 himself.

19 MR. JORDAN: Well, I don't know exactly whether
20 it will refresh his memory, whether the dates are there or
21 not. If there are dates there, I'm not going to need to
22 raise the issue. If there aren't dates there, it may
23 refresh his memory. If you want to save time today, I suggest
24 we don't bother talking about it and we will solve it one
25 way or the other in San Antonio.

9-1 1 BY MR. JORDAN:

2 Q Mr. Frazar, on the subject of radiographs, to your
3 knowledge were any of the radiographs that are the subject of
4 Violation 79-19 so foggy or otherwise defective that they
5 clearly could not be read?

6 BY WITNESS FRAZAR:

7 A I don't know, Mr. Jordan. I would presume so,
8 based upon just discussions with my staff and a general
9 understanding that there were some radiographs that had some
10 pretty significant problems with regard to how the film had
11 been processed.

12 Q Mr. Briskin, I thought Judge Lamb was going to
13 clear this up, but he sort of got right to the edge, and I'm
14 still not clear on it.

15 This is, I guess, Page 68 of your testimony. I
16 don't know that we really need to go to it. It's the matter
17 of increasing the onsite engineering staff, and the effect of
18 that on the Houston Engineering Staff.

19 There were a number of transfers from Houston.
20 My question was did the total number of engineers in Houston
21 remain the same, or were some of those positions sent to the
22 site?

23 BY WITNESS BRISKIN:

24 Q Let me answer it this way: Because of the
25 attrition factor and the fact that when this occurred we were

9-2
1 still in the building stage of the organization in Houston,
2 the people that went to the site, the positions they came out
3 of in Houston stayed in Houston, and were refilled with other
4 people.

5 So, there was no attempt to lessen the organization
6 in Houston.

7 Q Mr. Frazar, who was the individual, competent
8 Brown & Root QA professional with the abrasive personality who
9 you discussed?

10 BY WITNESS FRAZAR:

11 A You want his name?

12 Q Yes. I do.

13 BY WITNESS FRAZAR:

14 A The man that I was referring to is Mr. Chuck
15 Vincent.

16 Q I guess Mr. Frazar or Mr. Turner either one, is
17 there a memo to Brown & Root in the period of approximately
18 August 1979 expressing concerns relating to quality assurance
19 activities that could be considered to be a parallel to the
20 Ferguson memo expressing concerns related to the construction
21 activities, and in the same kind of strong wording?

22 BY WITNESS FRAZAR:

23 A Not to my knowledge, Mr. Jordan. I don't know of
24 any parallel memo.

25

9-3
1 BY WITNESS TURNER:

2 A I'm not aware of any parallel memo, either.

3 MR. JORDAN: That's my cross, or recross, as the
4 case may be.

5 JUDGE BECHHOEFER: Mr. Sinkin.

6
7 BY MR. SINKIN:

8 Q Mr. Frazar, you talked about doing the job right
9 the first time, and we've talked about that topic many, many
10 times, I think, and I don't think it has ever been asked:

11 Have you ever done a statistical analysis of
12 particular parts of the plant like welding, or whatever, to
13 see how many times the job was not done right the first time,
14 what percentage of the times the job had to be done over again?

15 BY WITNESS FRAZAR:

16 A Not a statistical analysis that I'm aware of has
17 been performed to determine that, no, sir. I'm not sure that
18 there is capability to perform such a statistical analysis,
19 because that presumes that you know what the failure rate was,
20 or that there is some information which I'm not sure is
21 available to do that kind of analysis, but to my knowledge, no.

22 Q Maybe I haven't stated myself clearly. Let's
23 take, for example, welding. Do you know how many welds an
24 individual does, or rejects, so you could do a statistical
25 analysis on how many welds are not done right the first time?

9-4
1 BY WITNESS FRAZAR:

2 A We keep data on weld rejections, and that data --
3 when I say "we" I'm talking about the project, as a whole --
4 that data is used by the welding engineering department to
5 determine when a certain welder needs to be retrained, or what
6 the causes of some of the rejections are.

7 But it is not a statistical analysis in the
8 sense of classical statistics.

9 Q Do you do any kind of productivity analysis of
10 the work force?

11 BY WITNESS FRAZAR:

12 A I guess Mr. Briskin will have to answer that.
13 Productivity is more in the project management relm.

14 MR. NEWMAN: Mr. Chairman, I am just going to very
15 briefly object to that question. I think it is outside the
16 scope of prior testimony.

17 MR. SINKIN: It is asked, Mr. Chairman, in the
18 context of doing the job right. There are ways of doing the
19 job right, which would involve both actually doing something
20 the way you are supposed to be doing, and there are ways of
21 doing the job right in terms of your working at the speed you
22 are supposed to be working, you are producing what you are
23 supposed to be producing. A productivity analysis would show
24 the latter, just like the statistical analysis would show the
25 former.

9-5 1 JUDGE BECHHOEFER: I don't think the Board asked
2 any questions along that line. I don't think the Staff did,
3 either.

4 MR. SINKIN: It was in discussion with Mr. Reis.
5 It was in the questions about poor construction work by B&R,
6 whether that was a cause of the friction -- I believe that was
7 the question that was asked -- and in the course of answering
8 that Mr. Frazar talked about doing the job right the first time,
9 and I was following up on his doing the job right the first
10 time answer.

11 That is the only question I had in that particular
12 area.

13 (Bench 'conference.)

14 JUDGE BECHHOEFER: I think I'll uphold that
15 objection. I think there is an objection it's too remote.

16 BY MR. SINKIN:

17 Q By the way, Mr. Frazar, was poor construction
18 practices by Brown & Root one of the root causes?

19 I think there's a pun there somewhere.

20 BY WITNESS FRAZAR:

21 A I'm glad you highlighted it. I almost missed it.

22 No. When we refer to root causes, we are referring
23 to some very specific language that is contained in our response
24 to the Notice of Violation May 23rd, 1980, and there are six
25 statements in there that identify what we mean as root causes.

19-6 1 Q And poor construction practices by Brown & Root
2 is not considered one of the six?

3 BY WITNESS FRAZAR:

4 A It is not included in the list of six.

5 Q Do you think there should be seven?

6 BY WITNESS FRAZAR.

7 A No, sir.

8 Q Mr. Oprea, I believe you were discussing the
9 concrete placements that have gone on since the Order to Show
10 Cause, and I was wondering if you have had any particular
11 problems in the restart of the complex concrete that stand out
12 in your mind?

13 BY WITNESS OPREA:

14 A No. There may have been some isolated incidents
15 pertaining to the pours, but nothing of any significant nature,
16 other than the understanding that the concrete placements have
17 been highly successful and people have been performing.

18 As I said, there may have been one or two areas
19 where they have some incidents, but they have been corrected,
20 as I understand.

21 //

22 ///

23 ///

24

25

9-7 1 Q You talked about in the response to the Order to
2 Show Cause how you have revised procedures, you have gotten
3 HL&P more involved in program direction, and oversight of
4 Brown & Root.

5 When you were talking about those things Brown & Root
6 kind of came into my mind, and what their view of that would be.
7 We have a very common thing going on in the country now about
8 talking about getting government off our backs.

9 Do you think there may come a point when the
10 Houston Lighting & Power involvement in the actual construction
11 of the project would be excessive?

12 BY WITNESS OPREA:

13 A Never.

14 Q Never. Do you think it might reach the point
15 where it might cause Brown & Root to feel that they are not
16 an independent responsible construction company?

17 BY WITNESS OPREA:

18 A I don't believe so.

19 Q Mr. Briskin, I, too, had one clarification question
20 on Level 3 business that you have talked about.

21 You have 30,000 activities going on, and they are
22 all in this Level 3 program. Recently at the project there have
23 been a series of layoffs, and in earlier testimony, if I
24 remember correctly, the explanation for those layoffs was in
25 part the fact that engineering was not available to do work at

19-8
1 this particular point in time, so there was nothing for people
2 to do, so they were laid off.

3 Does that mean that the -- Well, is engineering
4 one of those 30,000 activities, the engineering that is ongoing?

5 BY WITNESS BRISKIN:

6 A It is many of them, yes.

7 Q It is many of them?

8 BY WITNESS BRISKIN:

9 A Yes.

10 Q Are the layoffs then a normal in the sense of yes,
11 that tracks what Level 3 said should be happening at this point,
12 or does the absence of the engineering mean that they are not
13 meeting the Level 3 schedule?

14 BY WITNESS BRISKIN:

15 A It would be difficult for me to say specifically
16 at this point, but I would venture to say it is probably some
17 of both.

18 Q Some of both?

19 BY WITNESS BRISKIN:

20 A Yes.

21 Q Mr. Frazar, do you have any training at all in
22 radiograph? You've talked about radiographs.

23 BY WITNESS FRAZAR:

24 A Yes, as a matter of fact, I do. I attended a
25 seminar in about 1974 that was put on by -- I can't think of

9-9

1 the firm. The name is up there. It was a firm that was
2 involved in doing radiography, and they performed a training
3 program here in Houston which I attended that lasted I believe
4 a couple of weeks, or on the order of magnitude which involved
5 classroom training on the theory of radiography, as well as the
6 classroom training on how to apply radiography as a tool, and
7 then subsequently we went to a laboratory where we actually
8 performed radiography on some welds. I actually shot some
9 radiographs, using the source, and developed the film and did
10 the interpretation.

11 Q I was struck by your statement that looking at
12 the same radiograph five different people might have four
13 different opinions, I believe were the numbers you used.

14 Was that kind of opinion expressed by the people
15 who were doing that training? Is that what they said was the
16 case, that you could expect that?

17 BY WITNESS FRAZAR:

18 A I don't recall those people specifically saying
19 that. I've had quite a lot of experience with radiographic
20 interpretation, not only at HL&P but in the petrochem business
21 before that, and I am very familiar with the degree of
22 subjectivity that sometimes can come into interpretation of
23 some of the real, real, fine points of a radiograph.

24 For example, there are limits on the amount of
25 porosity that might be acceptable in a certain kind of weld.

19-10

1 And, generally, the code language on that says that you have to
2 measure each individual indication of porosity, and you add
3 up those number of dimensions, and you cannot have greater than
4 a certain total dimension of porosity in any certain length
5 of weld.

6 Then there are also some other things about no
7 tails on the prosity, indicating a linear type indication out
8 of the porosity, and that sort of thing.

9 When you get down to measuring fly specs, if you
10 will, as an analogy, it is difficult -- you know, it leaves
11 room for people to interpret, and that is a very meticulous
12 process to interpret radiographs.

13 And when you send a Level 3 or Level 2 interpreter
14 down to a viewing screen and have him interpret a radiograph,
15 and then you take him away from the room and put the same
16 radiograph up and have another Level 3 come in you may in fact
17 have different interpretations of what actually the radiograph
18 is showing you. And it is not uncommon for that to happen.

19 Q Are the Level 3 inspectors at South Texas qualified
20 by ASNT?

21 BY WITNESS FRAZAR:

22 A The Level 3 inspectors at South Texas are qualified,
23 or let's say certified under the rules of the standard ASNT-TC-1A,
24 which prescribes the requisite credentials that the people have
25 to have to perform in that activity.

19-11

1 I can't answer whether or not the American Society
2 For Nondestructive Testing, which is what ASNT stands for, have
3 actually administered written examinations or practical
4 examinations to these people or not.

5 And, moreover, I don't know if ASNT is in the
6 business of doing that. I think there were some changes in how
7 ASNT was involved in that process not too long ago, but I'm
8 not really familiar with the level of detail of that.

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20-1 1 Q Mr. Frazar, you talked about applied psychology
ged 2 people going to the site.

3 You talked about them being involved in some
4 kind of study at the site. Do they actually go to the
5 site?

6 BY WITNESS FRAZAR:

7 A Yes, sir.

8 Q Do they interview individuals one on one?

9 BY WITNESS FRAZAR:

10 A That has been one of the techniques that they've
11 used in gathering information for the process of team
12 building.

13 Q How is it decided who they interview?

14 BY WITNESS FRAZAR:

15 A They make the selection based upon the areas
16 in which we think there may be some issues that need to
17 be identified and worked on.

18 As a matter of fact, the process that's used
19 to develop the plan that they go by is that I have discussions
20 with them and give them my perceptions and my perspective
21 on how the organization is functioning.

22 They take the results of that interview with
23 me and develop and propose to me a plan for how they would
24 approach the information-gathering process.

25 We discuss the plan and then once we have

1 agreed that that plan really looks like it's going to
2 go to the level of what we're trying to identify, then
3 they proceed to implement the plan.

4 Q In implementing the plan, how are the actual
5 individuals they talk to identified?

6 BY WITNESS FRAZAR:

7 A Based on the issues that we're trying to get
8 at and the groups of individuals that are working in the
9 areas where those issues are germane.

10 For example --

11 Q Yes, please.

12 BY WITNESS FRAZAR:

13 A If I perceive, hypothetically, that the concrete --
14 or the people that work in the concrete area, the quality
15 engineers and Brown & Root and my discipline QA personnel,
16 if I perceive that there is some problem there with regard
17 to how those groups interact in the working environment,
18 then we sit down and discuss what things I see or what
19 things I think might be the source of the problem, or
20 whatever.

21 They take those perceptions of mine, put that
22 together and say, "Well, it sounds to me like these are
23 the issues that you have identified. Maybe there are
24 some others that you haven't identified. Clearly, the
25 people we need to talk to are the discipline QA personnel

20-3

1 and the civil part of your organization and the civil
2 quality engineers over in the Brown & Root side of the
3 house."

4 So the people fall right out of the types
5 of issues that we're trying to get at and how, from an
6 organizational standpoint, the groups are working together.

7 Q Okay. We're getting closer.

8 Let us say they want to talk to QC concrete,
9 because of what you've expressed as your concern.

10 They go to the site. Do they talk to all
11 QC concrete? Do they pick some? Does somebody pick some?

12 BY WITNESS FRAZAR:

13 A This is done at the site. They don't go to
14 the site.

15 Q I mean at the site.

16 BY WITNESS FRAZAR:

17 A I'm on the site.

18 Q When they're ready to go talk to people.

19 BY WITNESS FRAZAR:

20 A When they're ready to go tal' to people, they
21 talk to the people that are the groups we're trying to
22 work out the inter-group --

23 Q The whole group?

24 BY WITNESS FRAZAR:

25 A As many as they need to to gather the information

0-4 1 to show what the base issues are.

2 We're not into -- When I say applied psychology,
3 we're not trying to be clinical about this.

4 We have no interest in trying to solve a particular
5 individual's emotional problems.

6 We're trying to take an understanding of basic
7 psychological principles as they relate to a working environment
8 in the business context.

9 Identify issues and then get the groups together
10 and review those issues and say, "Hey, it looks like this
11 group is feeling this and this group over here is feeling
12 this," and explore the whys of those feelings that exist,
13 and just getting that out on the table and discussing
14 it helps to smooth out the relationships between the people.

15 Q Let me try one more time.

16 When they are ready to interview the QC inspectors
17 in concrete, do they select the individuals they will
18 interview?

19 Does a supervisor select the individuals they
20 will interview?

21 Do you select the -- Who selects the actual
22 people to be interviewed?

23 BY WITNESS FRAZAR:

24 A They select the people to interview.

25 Q Thank you very much.

20-5
1 BY WITNESS FRAZAR:

2 A "They" being the psychologists.

3 Q The psychologists. Fine.

4 You've discussed the fact that problems in
5 the use of NCR's has led to revisions.

6 It's a question that came up in 79-19.

7 Yet at the moment, if I remember the Brown
8 & Root chart that was handed to us sometime this week,
9 the NCR supervisor box is empty.

10 Can you respond to why that supervisor box
11 would be empty at this time?

12 BY WITNESS FRAZAR:

13 A Could you refresh my memory? I don't know
14 of the chart you are referring to.

15 Q I've been looking for it for some time without
16 success.

17 Perhaps Mr. Axelrad, with his rather comprehensive
18 filing system, I will say, can immediately put his hands
19 on it.

20 I knew he could.

21 MR. AXELRAD: Would that be Applicants' Exhibit
22 42?

23 MR. SINKIN: If not 42, it should be right
24 about there.

25 (Discussion off the record.)

10-6

1 MR. SINKIN: It is Applicants' Exhibit 42.

2 BY MR. SINKIN:

3 Q On the fifth page on the far left side, there
4 are four boxes, one of which is titled, "NCR Supervisor."

5 (Witness reviews document.)

6 BY WITNESS FRAZAR:

7 A Mr. Sinkin?

8 Q Yes.

9 BY WITNESS FRAZAR:

10 A That chart is of the construction organization.

11 Q That chart is the construction organization,
12 so that would be the NCR supervisor who reviews NCR's
13 written against construction?

14 BY WITNESS FRAZAR:

15 A No. Well, that NCR supervisor position, as
16 I understand it, is intended to be a person who takes
17 the NCR's and ensures that construction obtains the proper
18 actions out of the construction organization to implement
19 the disposition.

20 In other words, he deals in the construction
21 organization to participate in the processing of NCR's,
22 whether it's during the course of the MRB meetings when
23 they are trying to arrive at what a proper disposition
24 is.

25 Construction may want to make an input at

0-7 1 the MRB meeting.

2 He goes to the right construction engineer
3 or the area manager or whatever and says, "Hey, I have
4 this NCR. What type of disposition would be best implemented
5 by construction in the field," so that he can go back
6 and make those inputs at the MRB meeting.

7 Similarly, he keeps, as I understand it, keeps
8 track of NCR's that are open for various areas of construction,
9 such that when the area managers identify that they are
10 wanting to work in that area of the plant -- for example,
11 if they are ready to make a concrete placement in a certain
12 area, this would be the source of their information to
13 determine what actions are required on the part of construction
14 to implement various nonconformances so that they can
15 get ahead with their work.

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1 Q Do you have any idea why that box is now vacant?

2 BY WITNESS FRAZAR:

3 A No, sir, I don't. I'm not the construction
4 manager.

5 Q You have not questioned B&R as to the vacancy
6 in that box?

7 BY WITNESS FRAZAR:

8 A No, sir, I sure haven't.

9 I know that they have an individual currently
10 that is operating as a member of the Material Review Board,
11 and he is fulfilling that role at this point.

12 I'm not sure whether they plan to fill this
13 block with him or if they are hiring from outside to fill
14 the block, or whatever.

15 But they have an individual assigned to perform
16 the functions I just described presently.

17 Q Mr. Oprea, you discussed the selection process
18 for the HL&P decision to hire Brown & Root.

19 I believe you testified that in visiting sites
20 you visited Brunswick; is that correct?

21 BY WITNESS OPREA:

22 A That's correct.

23 Q This would be in late '72, early '73, somewhere
24 in there?

25 //

0-9 1 BY WITNESS OPREA:

2 A. Thereabouts, yes.

3 Q. What stage of construction were they in at
4 that time; do you know?

5 BY WITNESS OPREA:

6 A. Well, I was looking at Brunswick-1, if I remember.
7 It seems like it was, anyhow.

8 They were doing -- Brunswick-1 was pretty
9 close, I think, better than 50 to 75 percent completion.

10 They were also working on No. 2 unit.

11 Q. So that would make it fairly similar to where
12 STP is now?

13 BY WITNESS OPREA:

14 A. The best that I recall.

15 Q. Did you, while there, pick up any of the kinds
16 of comments that apparently Mr. Frazar picked up later
17 regarding the quality program of Brown & Root?

18 BY WITNESS OPREA:

19 A. No, I had not.

20 Q. You also talked about evaluating the four
21 main contenders in terms of the process of getting their
22 first team on board.

23 At the time you picked Brown & Root, did the
24 Power Group of Brown & Root have other powerplants under
25 construction?

0-10

1 BY WITNESS OPREA:

2 A Nuclear powerplants?

3 Q Any kind?

4 BY WITNESS OPREA:

5 A Yes.

6 Q Do you know how many?

7 BY WITNESS OPREA:

8 A No, I don't. They had several fossil sites,
9 coal-fired units.

10 They were also building, finishing up, I should
11 say, some gas-fired units. That was just about the terminal
12 point for any more gas-fired units to come into existence.

13 They appeared to have a fairly decent involvement
14 in fossil plants and a pretty good leg up, if I can use
15 that phraseology, relative to preparing for the work that
16 they wanted to do in the nuclear area, over and above
17 what they were doing at Brunswick.

18 Q Did their involvement in those plants raise
19 a concern on your part that you might not get the first
20 team?

21 BY WITNESS OPREA:

22 A No, sir.

23 Q Mr. Oprea, can you tell me who the members
24 of the board of Brown & Root were in the mid-'72 to early
25 '73 period?

0-11

1 MR. NEWMAN: Mr. Chairman, I'm going to object
2 to that question.

3 That has no relevance to anything in this
4 proceeding.

5 MR. SINKIN: Mr. Chairman, I think it was
6 made quite clear earlier when this question was raised
7 with Brown & Root that the Board was interested in a possible
8 conflict of interest and that the person to ask the questions
9 of was Mr. Oprea.

10 MR. REIS: That's beyond the scope of redirect.

11 MR. NEWMAN: Yes.

12 MR. JORDAN: I would note that it is hardly
13 beyond the scope of redirect.

14 It seems to me to get exactly to the issues
15 that Dr. Lamb raised of the considerations taken into
16 account when Brown & Root was chosen.

17 MR. SINKIN: I believe it was Judge Hill.

18 MR. JORDAN: Maybe it was Judge Hill.

19 MR. SINKIN: That was questioning how Brown
20 & Root was chosen.

21 JUDGE HILL: I did not ask about....

22 MR. SINKIN: Certainly, Judge. I would not
23 ask questions that you had already asked, but you did
24 open the area of how they decided to select Brown & Root,
25 and one possible reason for selection might be conflict

0-12 1 of interest, and I'm trying to put that issue to rest
2 one way or the other.

3 (Bench conference.)

4 JUDGE BECHHOEFER: We will sustain the objection
5 as beyond the scope of the Board's examination.

6 MR. SINKIN: I find that ruling quite remarkable,
7 Your Honor, for two reasons.

8 One of the reasons I didn't raise it in my
9 original cross was that the Board was the party interested
10 in that issue, and I fully expected the Board to ask questions,
11 and when they didn't, but only asked about selection,
12 I did.

13 Secondly, if you're talking about selection
14 and you want to know capabilities, performances, histories,
15 if there's some reason to suggest that there might have
16 been a conflict of interest, we should know that.

17 You have ruled and I recognize that.

18 MR. COWAN: Your Honor --

19 JUDGE BECHHOEFER: Well, we believe it is
20 beyond the scope of the Board's questions, anyway, so
21 that's the basis for our ruling.

22 BY MR. SINKIN:

23 Q Mr. Briskin, you stated in your prepared testimony --
24 I believe it indicates that you are primarily responsible
25 for this whole Task Force approach to responding to various

20-13

1 problems of the project; is that correct?

2 BY WITNESS BRISKIN:

3 A. Responding to the show cause.

4 Q. Responding to show cause?

5 BY WITNESS BRISKIN:

6 A. Yes, sir.

7 Q. Then none of the other Task Forces -- Let
8 me ask you.

9 I know there's a Vendor Surveillance, for
10 example, Task Force, responding to a reportable item in
11 vendor surveillance.

12 Is that in your area of responsibility at
13 all?

14 MR. NEWMAN: Mr. Chairman, I don't recall
15 a question remotely like this being asked by the Board.

16 MR. SINKIN: Well, let me refresh your --

17 MR. NEWMAN: I recognize these objections
18 take longer than the questions.

19 MR. SINKIN: They do, indeed, Mr. Newman,
20 and I would refresh your memory that Dr. Lamb was questioning
21 Mr. Briskin about the Task Forces, and Mr. Briskin was
22 responding about what the Task Forces did.

23 He talked about reviewing procedures and changing
24 procedures to meet requirements.

25 There was a whole --

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1 MR. NEWMAN: He was only testifying -- Dr. Lamb
2 asked --

3 JUDGE BECHHOEFER: I would say that was only
4 one Task Force, and whether Mr. Briskin is connected to
5 other Task Forces is certainly not relevant to our question.

6 MR. NEWMAN: That's right.

7 JUDGE BECHHOEFER: So we will sustain that.

8 It was merely on his involvement with the
9 particular Task Force that's discussed here. That was
10 all the question.

11 MR. SINKIN: Actually, there were questions
12 about problems of staffing the Task Forces while keeping
13 the projects running, the various personnel that were
14 heading up the various Task Forces --

15 JUDGE BECHHOEFER: It's the one Task Force
16 and its subdivisions, just one Task Force.

17 MR. SINKIN: I see. That's fine.

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1 Q We've talked a great deal about the changes that
2 went on in the Brown & Root, HL&P personnel at the upper levels
3 o particularly the period 1977 to now that Judge Hill asked
4 about. Are those kinds of changes reflected as you move
5 right on down through superintendents, general foremen, foremen,
6 the whole structure of the project? Are there what you would
7 consider numerous changes in the Brown & Root organization,
8 the HL&P organization and all the way down the line?

9 BY WITNESS OPREA:

10 A I'm trying to get a feel for your question,
11 and I presume that you're addressing that to me?

12 Q Whoever on the panel would care to answer, but
13 I believe you've discussed this.

14 BY WITNESS OPREA:

15 A You're looking in my direction so I felt guilty.

16 BY WITNESS TURNER:

17 A I believe I would like to.

18 BY WITNESS OPREA:

19 A Go ahead, Ed.

20 BY WITNESS TURNER:

21 A Okay. I would call your attention to the
22 Ferguson memo, if I may, and you're talking now about the
23 lower levels, the foremen, general superintendents, and one
24 of the charges that we gave Mr. Dodd in Brown & Root, if you
25 recall, in that memorandum was to look at their organization

1 lower than the superintendent and to see the qualifications
2 that those people had and determine if they were qualified to
3 do the jobs that Brown & Root had placed them in.

4 Q Well, my question --

5 BY WITNESS TURNER:

6 A Does that answer your question, Mr. Sinkin?

7 Q Well, my question, really, Mr. Turner, was whether
8 we've seen a pattern of turnover, a rate of turnover, in those
9 kinds of positions similar to the things we've seen at the
10 upper levels of management.

11 BY WITNESS TURNER:

12 A I wouldn't have an answer for that question.

13 BY MR. OPREA:

14 A To some degree there had been and part of them
15 had been predicated on investigations based on allegations
16 and a number of people had been removed from the project and
17 transferred off the project by virtue of some of that activity
18 as well as normal turnover as well as promotions, as well as
19 the reassignments. So, there are a host of things that have
20 related to what might appear to be a changing of certain of
21 the supervisory personnel at different levels and different
22 stations in the project.

23 BY WITNESS FRAZAR:

24 A Mr. Sinkin, this project has been going on for,
25 I guess, eight, going on nine, years now. During the course

1 of that period of time, there are a lot of organization changes
2 that take place, people moving to different career positions
3 and moving on to other jobs in other companies and so forth.
4 Beyond that, it's very difficult to answer your question because
5 you just can't -- you've got to home in and be more specific
6 on a particular job position to get down to the frequency of
7 turnover in a particular job position.

8 Q Well, I was tempted to ask for a similar chart
9 on the superintendents and general foremen and foremen, but
10 I think we would have too much paper to deal with.

11 Now, Mr. Oprea, you were talking about an AE
12 contractor as one unit and said about 50 percent of the
13 utilities use the AE contractor as one unit. Do you know
14 how many of that 50 percent are utilities doing their own
15 work?

16 MR. REIS: That was asked and answered yesterday,
17 Mr. Chairman.

18 MR. SINKIN: It was?

19 MR. NEWMAN: Yes.

20 JUDGE BECHHOEFER: Yes, it was. Sustained.

21 MR. SINKIN: Thank you.

22 JUDGE BECHHOEFER: Off the record for a moment.

23 (An off-the-record discussion was had.)

24 JUDGE BECHHOEFER: Back on the record.
25

1 BY MR. SINKIN:

2 Q Mr. Oprea, you testified that just prior to the
3 time of the 79-19, that you were in discussions with Bechtel
4 about coming in and doing the same kind of or similar kinds
5 of studies?

6 BY MR. OPREA:

7 A No, that's incorrect.

8 Q Okay?

9 BY MR. OPREA:

10 A I said prior to the determination of 79-19, or
11 prior to the end of 1979, that I had been looking at, as early
12 as mid-year of 1979 the prospects of third-party auditing of
13 the quality assurance program on the project. It wasn't until
14 January, somewhere around the latter part of January, that
15 I finally decided to inquire of Bechtel whether or not they
16 would be willing to take on that task. And at that point in
17 time, we had a meeting that resulted in another meeting in
18 February and in kicking off the audit in early March.

19 Q Fine.

20 In the 81-11 investigation, was there a Houston
21 Lighting & Power individual in touch with the electrical
22 termination shack on any kind of regular basis?

23 Perhaps Mr. Frazar --?

24 BY MR. FRAZAR:

25 A I don't know what you mean, Mr. Sinkin, by any

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kind of a regular basis. There were some people in my organization who, on several occasions, over a period of six or eight months, had the occasion to go to the electrical termination shack and look at how the work was being set up to operate as a part of the planning for the safety-related electrical work which I guess we're probably at least a year away from doing any of that at this point.

There were some conversations that occurred between the people in the electrical termination shack and the people in my organization during that period of time. I presume that similarly our construction division in the field was in contact with the electrical termination shack, ours being HL&P's, as a normal course of their going to the field to see how the work was going on.

Q. Can you give me the name of a Houston Lighting & Power QA person that was having those conversations with the electrical termination shack during the time that we were talking about in 81-11?

Let's start with October of '80 forward to March of '81.

BY WITNESS FRAZAR:

A. Well, the first person that would be involved in that area would be Mr. Don Bohner, who's name I gave out yesterday as being the project QA supervisor in the electrical portion of my organization in the field.

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There are several people who work under him. There is a Mr. Larry Cuccia, who is a quality assurance specialist in the organization under Mr. Bohner. There is a Mr. Scott Monteith, who is another specialist in the organization under Mr. Bohner. There may have been some other people in the organization, but I know that those three, at least had some contact with the electrical termination shack.

Q Did Mr. Cuccia ever indicate to you that there were any problems at the electrical termination shack?

BY WITNESS FRAZAR:

A Mr. Cuccia never indicated to me that there were any problems with the electrical termination shack, at all.

Q Mr. Monteith?

BY WITNESS FRAZAR:

A Mr. Monteith performed a special implementation review of the electrical termination shack after the 81-11 investigation and after Brown & Root had conducted their investigation and made their decisions in terms of the terminations that were effected on the job.

We followed up, then, to do a special implementation review to see what the condition of the work was in the electrical termination shack and to verify that some of the things -- or verify that the things that were identified as allegations in the NRC's report had been followed up on properly by Brown & Root.

1 Q In explaining the DCN and FCR system, and I'm not
2 going to get back into those at all, you talked about construc-
3 tion presents something to QC and QC signs it off and then the
4 work is complete. To raise a hypothetical situation, if the
5 QC inspector had not actually looked at the work but did
6 sign the inspection card, what would you consider the condition
7 of that work?

8 BY WITNESS FRAZAR:

9 A If an inspector signed off an inspection without
10 actually performing the inspection, I would consider the
11 condition of the work to be indeterminate.

12 Q Mr. Oprea, I see in the notes that you took of the
13 81-11 investigation that apparently Mr. Frankum had told his
14 people, and I assume that's the people who worked under him,
15 not to talk to HL&P or to the NRC or at least that he was
16 afraid about his people talking to them. I'm really --
17 I think I'm referring, at least in part, to the sixth page
18 of your notes of Ernest Wyatt, and I assume that this page is
19 where Mr. Ernest Wyatt told you -- it's based on your discussion
20 with Mr. Grote about what Mr. Ernest Wyatt told him, is that
21 correct?

22 BY WITNESS OPREA:

23 A Yes, that's correct.

24 Q Now, down under Bidy Frankum, it says, "Has some
25 fear about his people talking to HL&P or NRC." Did you explore

1 with Mr. Grote at all, or with Mr. Frankum, what that means?

2 BY WITNESS OPREA:

3 A Yes, I --

4 MR. NEWMAN: Mr. Chairman, that's beyond the
5 scope of any examination by the Board. The question is why
6 it should be allowed at this late date, when Mr. Sinkin's had
7 those notes for some time and should have been using them
8 to cross-examine from yesterday.

9 JUDGE BECHHOEFER: The only question -- I know I
10 asked a question on those notes, but only as to one aspect,
11 and that was the -- who exercised the authority to fire
12 people, and I got some answers on that and --

13 MR. SINKIN: I know you did, and one of those people
14 fired was Mr. Frankum.

15 JUDGE BECHHOEFER: Well, are your questions directed
16 to that aspect, because I didn't really open up any other aspect
17 about 81-11, so I was wonder where you were going on those.

18 BY MR. SINKIN: That was the only question I had
19 on those, actually, and I wasn't going anywhere else.

20 There was also questioning about not approving the
21 personnel contacting the NRC. I was pulling the two together,
22 actually, and there was questioning about the incidents in which
23 personnel were told not to contact the NRC.

24 JUDGE BECHHOEFER: You can answer the one question.
25 Objection overruled on that one.

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BY WITNESS OPREA:

A. The way it was characterized to me was that Mr. Frankum was the little Ceasar, and he liked to be the voice of authority and, as such, I presumed that he like to be the hub of the wheel that responded to any communication that responded to NRC or HL&P, and that's the impression I had.

Q That responded to any communications from --

BY WITNESS OPREA:

A. He would like to have NRC talk to him. He would like to have HL&P talk to him instead of talking to his people and the impression I got was this was his way of telling his people, you don't talk to them, I'll talk to them.

MR. SINKIN: I'm through.

JUDGE BECHHOEFER: Mr Reis?

RE CROSS-EXAMINATION

BY MR. REIS:

Q My one question is, we previously had reference to Applicant's Exhibit 44, which is the January 1978 memo of your meeting with Brown & Root and Applicant's Exhibit 45, which is May 1978 meeting.

After this memorandum, were the Commission's reports 78-12 and 13 issued, to your knowledge? And those are Staff Exhibits 8 and 9, dated, respectively, August 22nd, 1978, and August 25th, 1978.

// /

1 BY WITNESS TURNER:

2 A Can I answer that?

3 Q Yes, you may.

4 BY WITNESS TURNER:

5 A Yes, they were.

6 MR. REIS: That's all I have.

7 JUDGE BECHHOEFER: The Board has no further questions.

8 Mr. Newman, do you have anything?

9 MR. NEWMAN: I have nothing.

10 JUDGE BECHHOEFER: As far as I can determine,
11 this panel is excused. We thank you for your patience and
12 for your presence.

13 (Panel excused.)

14 MR. JORDAN: I would like to make a motion, Your
15 Honor. We were off the record when we were discussing this
16 matter.

17 As a result that we have had what is now three
18 hours of preparation time eliminated by virtue of the proceeding,
19 unscheduled, this afternoon, I reserve the evening of Monday
20 for limited appearance statements and not carry the hearing
21 process itself into Monday so that I may absent myself and my
22 co-counsel and we can use that time to prepare. If we cannot,
23 we can expect to be inadequately prepared.

24 MR. REIS: Mr. Chairman, I take it that that would
25 not affect the regular daytime schedule on Monday and it will

1 go forward?

2 JUDGE BECHHOEFER: Surely.

3 MR. REIS: The Staff would have no objection if
4 we shifted the Monday evening session, aside from the special
5 appearances on Tuesday and then had a session on Thursday as
6 well in order to accommodate the Intervenors.

7 MR. NEWMAN: Mr. Chairman, Tuesday and Thursday
8 night would be fine with us.

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1 JUDGE BECHHOEFER: What we'll do is we will hold
2 Monday evening, which we were going to run Monday until 6:00 p.m.,
3 anyway, during the day, and then start at 7:30.

4 The 7:30 session will be just for limited appearances.
5 We will meet Tuesday evening.

6 I will withhold at the moment on later in the week,
7 but we probably will meet one other evening later in the week
8 as well, but we'll definitely meet Tuesday evening.

9 I would like for the Applicant to outline the
10 panels which we ought to be prepared for now that we've
11 finished the Oprea Panel.

12 MR. AXELRAD: Mr. Chairman, at this time we would
13 plan on Monday morning, or whenever limited appearances are
14 over on Monday, to proceed with the recall of the Goldberg/Frazar
15 Panel with Mr. Barker.

16 That's subject to only one possible caveat, since
17 we had thought as of last night that we wouldn't finish with
18 this panel until Monday. I'm not sure if we can reach
19 Mr. Goldberg, but as soon as we can reach Mr. Goldberg we'll
20 proceed with Goldberg/Frazar/Barker.

21 In any event, we would proceed shortly thereafter
22 to the Pettersson Panel on backfill.

23 MR. REIS: Excuse me. What names are those?

24 MR. AXELRAD: The Pettersson Panel

25 MR. REIS: Okay. Fine.

22-2

1 MR. AXELRAD: Okay. And after the Pettersson Panel
2 on backfill, we would plan to proceed with the Pettersson/White
3 Panel on the FSAR statements.

4 And thereafter with the Buckalew/Duke Panel, and
5 then the three panels on concrete. That's the Murphy/Hernandez/
6 Artuso Panel on concrete verification programs, and then
7 there's another large Murphy Panel which deals with the
8 several activities relating to the STP concrete work and the
9 related contention of the Intervenors; and the Fraley/Purdy/Carvel
10 Panel on the concrete restart program.

11 Those are the three concrete panels.

12 The time limitations that we have with respect to
13 any of those panels, as I've indicated before, is that one of
14 the members of the Pettersson Panel on backfill is leaving the
15 country after Wednesday, so we would hope to finish the
16 Pettersson Panel on backfill by Wednesday, and Mr. Duke is
17 available only next week, so we'd like to make sure to get the
18 Buckalew/Duke Panel in that week.

19 JUDGE BECHHOEFER: Let me ask you a question.

20 Why don't you schedule the two Pettersson Panels
21 and the Buckalew Panel before the Goldberg/Frazar/Barker Panel?

22 MR. AXELRAD: There are a couple of reasons for
23 that.

24 One is that since the Goldberg/Frazar/Barker Panel
25 is management, it would be useful, we think, to finish with that,

22-3 1 together with the other management type testimony.

2 In addition, it's primarily on 81-11. We would
3 like to finish that.

4 And secondly, Mr. Goldberg and Mr. Barker would
5 not be available on Thursday and Friday of next week, and
6 Mr. Frazar will not be available in the week in July, so I
7 thought if we could take care of Goldberg/Frazar/Barker first --
8 I'm going on the assumption that that would not take more than
9 a portion of a day. I'm not sure. They don't have that much
10 to contribute on 81-11, and the only reason we're bringing them
11 Mr. Barker is because Judge Hill requested him, so I can't
12 imagine there's going to be much hearing time involved in
13 Goldberg/Frazar/Barker. I would hope not.

14 JUDGE BECHHOEFER: All right. Is Mr. Petterson
15 the one who is going to be gone by Wednesday, because you've
16 got two panels that he's on.

17 MR. AXELRAD: No. Mr. Hedges, who is on the
18 Petterson Panel, has to leave by Wednesday.

19 JUDGE BECHHOEFER: Oh, I see. I thought it was
20 Mr. Petterson.

21 MR. AXELRAD: He's available until Friday.

22 JUDGE BECHHOEFER: I see. Okay. I misunderstood.
23 Any objections to that order?

24 (No response.)

25 MR. AXELRAD: Now, we did make a discovery request

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1 from the Intervenors relating to materials that they have with
2 respect to 80-34, 81-11 and 81-17.

3 I've been told by Mr. Jordan that they have to
4 review their files and as soon as they can do that they will
5 respond to that.

6 I assume that we already have, or will be given
7 tonight any materials that are going to be used in the cross-
8 examination of Goldberg/Frazar/Barker, who will be the first
9 panel on Monday.

10 Is my assumption correct?

11 MR. JORDAN: To my knowledge, we don't -- speaking
12 for CEU -- you've got everything we might have that would
13 relate to cross-examination on 81-11 matters of that panel.

14 MR. SINKIN: The same for CCANP.

15 MR. AXELRAD: Okay. And any other matters, I
16 assume; I don't know what else they would be cross-examined on.
17 I'm not sure I understand the limitations.

18 MR. JORDAN: Well, that's what's open for discovery,
19 is 81-11 matters. That's what I responded on.

20 MR. SINKIN: Mr. Barker is coming sight-unseen at
21 the request of Judge Hill. We have no idea what he's going to
22 testify to.

23 MR. AXELRAD: Well, let me ask a different question,
24 then.

25 Are there any other documents which will be

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1 presented, for authentication that we should have beforehand so
2 that we can look at them before any of those panel members
3 appear?

4 JUDGE BECHHOEFER: The Board doesn't have any.

5 MR. JORDAN: We don't think so at this point.

6 I would ask, there was a discovery request the other
7 way that we want to clear up. I don't know if it was a
8 discovery request or what it was, but it related to --

9 MR. AXELRAD: Can we finish mine?

10 MR. JORDAN: I think we're done. You've got it.

11 MR. AXELRAD: Okay.

12 MR. JORDAN: There is a matter that goes the other
13 way, which is this matter of the completeness of the response
14 to the Ferguson memo.

15 We are awaiting the attachment to the memorandum
16 that has been marked for identification and whatever the other
17 documents are that complete the response that was made to the
18 memo.

19 MR. AXELRAD: We hope to be able to do that by the
20 time we put Mr. Barker on on Monday morning.

21 MR. JORDAN: Okay.

22 JUDGE BECHHOEFER: Okay. With that, we are starting
23 at 9:30 on Monday.

24 (Whereupon, at 4:42 p.m., the hearing was adjourned,
25 to reconvene at 9:30 a.m., Monday, June 22, 1981, in San Antonio.)

This is to certify that the attached proceedings before the
NUCLEAR REGULATORY COMMISSION

in the matter of: HOUSTON LIGHTING & POWER COMPANY
SOUTH TEXAS NUCLEAR PROJECT UNITS 1&2

DATE of proceedings: June 20, 1981

DOCKET Number: 50-498 OL; 50-499 OL

PLACE of proceedings: Houston, Texas

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

Lagailda Barnes

Official Reporter (Typed)

Lagailda Barnes

Official Reporter (Signature)