

ORIGINAL

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of:

PACIFIC GAS & ELECTRIC COMPANY

(Diablo Canyon Nuclear Power Plant)

Docket No. 50-275 OL

50-323 OL

Location: Avila Beach, California Pages: D-842 - D-1082

Date: Thursday, November 3, 1983

8311090063 831103
PDR ADOCK 05000275
T PDR

TAYLOE ASSOCIATES

Court Reporters
1625 I Street, N.W. Suite 1004
Washington, D.C. 20006
(202) 293-3950

*TR 9/1 add LPDR
o/p
return original to
Chris Carter E.W. 589*

MELTZER
MM/mm

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

----- X
:
In the Matter of: :
:
PACIFIC GAS & ELECTRIC COMPANY : Docket Nos. 50-275 OL
:
8 (Diablo Canyon Nuclear Power Plant) : 50-323 OL
:
9 ----- X

Bay View Room
San Louis Bay Inn
Avila Road at Avila Beach
Avila Beach, California

Thursday, 3 November 1983

The hearing in the above-entitled matter was convened,
pursuant to notice, at 9:00 a.m.

BEFORE:

THOMAS S. MOORE,
Chairman, Atomic Safety & Licensing Appeal Board

JOHN H. BUCK,
Member, Atomic Safety & Licensing Appeal Board

W. REED JOHNSON,
Member, Atomic Safety & Licensing Appeal Board

MM/mm

1 APPEARANCES:

2 On behalf of the Applicants, Pacific Gas & Electric Company:3 BRUCE NORTON, ESQ.
4 Norton, Burke, Berry & French, P.C.
5 2002 East Osborn
6 P.O. Box 10569
7 Phoenix, Arizona 850648 RICHARD F. LOCKE, ESQ.
9 PHILIP A. CRANE, JR., ESQ.
10 Law Department,
11 Pacific Gas & Electric Company
12 77 Beale Street
13 San Francisco, California 9410614 On behalf of the Governor of the State of California:15 MICHAEL STRUMWASSER, ESQ.
16 Special Counsel to the Attorney General,
17 PETER KAUFMAN, ESQ.
18 SUSAN DURBIN, ESQ.
19 Deputy Attorneys General
20 State of California, Department of Justice
21 3580 Wilshire Boulevard
22 Los Angeles, California 9001023 On behalf of the Joint Intervenors, San Luis Obispo
24 Mothers for Peace:25 JOEL REYNOLDS, ESQ.
ERIC HAVIAN, ESQ.
Center for Law in the Public Interest
10951 West Pico Boulevard
Los Angeles, California 90064On behalf of the Regulatory Staff:LAWRENCE J. CHANDLER, ESQ.
HENRY J. MC GURREN, ESQ.
Office of the Executive Legal Director
United States Nuclear Regulatory Commission
Washington, D.C.Representing the IDVP:MAURICE AXELRAD, ESQ.
Lowenstein, Newman, Reis & Axelrad, P.C.
1025 Connecticut Avenue, N.W., Suite 1214
Washington, D.C. 20036

MM/mm

I N D E XWITNESSES:DIRECTCROSS

CHARLES W. DICK)	D-847	D-848
MICHAEL J. JACOBSON)		
STEVEN M. SKIDMORE)		
THOMAS G. DE URIARTE)		
GARY MOORE)		D-1048

EXHIBITS:IDENTIFICATIONRECEIVED

Governor's

No. 34 (Look Back Review PG&E Design Activities & Corp. QA)	D-856	D-857
No. 43 (NCR dtd 10/2/79)	D-890	D-895
No. 44 (NCR 2/28/80)	D-893	D-895
No. 35 (Review PG&E QA Manual, May-June 1982)	D-897	D-996
No. 36 (Project Summary Report)	D-921	D-996
No. 37 (Instruction 5, Rev.0, 8/10/82)	D-930	D-934
No. 38 (Instruction 5, Rev.1, 10/29/82)	D-930	D-934
No. 39 (Instruction 5, Rev.2, 3/11/83)	D-933	D-934
No. 33 (QA Mgt. Audit Report #317, Dec. 20-28, 1982)	D-935	D-936
No. 40 (Audit Report dtd 4/21/83)	D-951	D-954
No. 42 (Engrg. Manual Audit Results, 4/8/83 Att. B)	D-954	D-957
Joint Intervenor's		
No. 129 (QA Rev. & Audit, Phase I by Reedy, Prior to June 1978)	D-999	D-1000

INSERT:Page

Testimony Panel V, with Prof. Qualifications	D-847
--	-------

mgc 1-1

P R O C E E D I N G S

JUDGE MOORE: Come to order, please.

Good morning, Mr. Norton. Are you prepared to call your Panel 5?

MR. NORTON: Yes, Your Honor. We have Panel 5, which is addressing Contention 7 and 8. None of these panel members have testified at this reopened hearing, although I think three of them testified at the CQA meeting hearing.

I will ask them, starting with Mr. Dick, to give their names and job titles, please.

MR. DICK: My name is Charles Dick. I am a Project Manager on the Project Completion Team for the Diablo Canyon Project.

JUDGE MOORE: Mr. Norton, do you want to do any other preliminaries?

MR. NORTON: Yes. Mr. Dick's verification of his professional qualifications was not signed when the others were, because he was not in the State of California at the time. I have the original here, but right now I am having an appropriate number of copies run, and when we finish swearing them in, hopefully they will be back and we can give them to the Reporter to insert in the record.

JUDGE MOORE: Fine.

mgc 1-2

1 Whereupon,

2 CHARLES W. DICK

3 was called as a witness, and having been duly sworn, was
4 examined and testified as follows:

5 MR. JACOBSON: My name is Michael Jacobson.

6 I am the Quality Assurance Engineer for the Project Completion
7 Team for the Diablo Canyon Project.

8 Whereupon,

9 MICHAEL J. JACOBSON

10 was called as a witness, and having been first duly sworn,
11 was examined and testified as follows:

12 MR. SKIDMORE: I am Steven M. Skidmore, Manager
13 of Quality Assurance for Pacific Gas & Electric.

14 Whereupon,

15 STEVEN M. SKIDMORE

16 was called as a witness, and having been first duly sworn,
17 was examined and testified as follows:

18 MR. DE URIARTE: My name is Tom DeUriarte. I
19 am the Director of Program Management for PG&E's Quality
20 Assurance Department.

21 Whereupon,

22 THOMAS G. DE URIARTE

23 was called as a witness, and having been first duly sworn,
24 was examined and testified as follows:

25 MR. NORTON: Your Honor, we seem to have some sort

mgc 1-3

1 of noise in the microphones. Is the one on, on the far side
2 of you, Mr. DeUriarte?

3 MR. DE URIARTE: It's off.

4 JUDGE MOORE: Proceed, Mr. Norton.

5 DIRECT EXAMINATION

6 BY MR. NORTON:

7 Q Gentlemen, as submitted, the testimony indicates
8 who is responsible for what portions. Do you, at this time,
9 swear that that testimony is true and correct to the best
10 of your information and belief?

11 A (Witness Dick) I do.

12 A (Witness Jacobson) I do.

13 A (Witness Skidmore) I do.

14 A (Witness DeUriarte) I do.

15 MR. NORTON: Your Honor, at this time, we move
16 that the testimony of Panel No. 5 be inserted in the record
17 as though read, along with the professional qualifications
18 of these four gentlemen.

19 JUDGE MOORE: So ordered.

20 (The written testimony of Panel No. 5, the
21 Quality Assurance Panel, and the professional qualifications
22 of Messrs. Dick, Jacobson, Skidmore, and DeUriarte follow).
23
24
25

mgc 1-4

1 MR. NORTON: At this point in time, we will
2 turn the panel over for cross-examination.

3 JUDGE MOORE: Mr. Kaufman?

4 CROSS-EXAMINATION

5 BY MR. KAUFMAN:

6 Q I would like to address this question to the
7 panel as a whole, and ask you if each of you could please
8 give a brief description of your job duties and responsibilities
9 and the relationship that each of you has to one another,
10 starting with you, Mr. Dick.

11 A (Witness Dick) Very well. As indicated, I am
12 a Project Manager on the Project Completion Team at the
13 Diablo Canyon Project. I am an employee of Bechtel Power
14 Corporation, and I have an identified cognizance over the
15 quality program as well as certain collateral responsibilities
16 assigned to me by the Project Completion Manager,
17 Mr. Howard Friend.

18 My relationship to the other members of the
19 project is as follows: I provide project support, guidance
20 to the Quality Assurance Engineer, and I coordinate their
21 activities with the Project Completion Manager and other
22 components of the project. I provide project guidance
23 in this respect.

24 I do not provide direction to the Project
25 Quality Assurance Engineer, as he operates independently.

mgc 1-5

1 I further act as liaison in those matters
2 regarding quality between the project and certain members
3 of the PG&E management organization, including Mr. Skidmore.

4 Q Thank you. Mr. Jacobson?

5 A (Witness Jacobson) As the Project Quality
6 Assurance Engineer, I am the supervisor of the Quality
7 Assurance Group on the Diablo Canyon Project. I supervise
8 and direct the activities of the Quality Assurance Engineers
9 on the project. I coordinate with the other Groups on the
10 project within engineering, and I am involved in the
11 interfaces with PG&E and with the NRC on quality matters.

12 I report to the Bechtel San Francisco Power
13 Division Quality Assurance Department, and I have coordination
14 functions with Mr. Dick for project management.

15 Q Mr. Skidmore?

16 A (Witness Skidmore) As the Manager of Quality
17 Assurance for Pacific Gas & Electric, it is my responsibility
18 to set forth the policies to meet the requirements of
19 Appendix B for Diablo Canyon in formulating a Quality
20 Assurance Manual and procedures to see that that regulation
21 is adhered to.

22 Being the Manager, I have five directors within
23 the Department that report to me, one of which is
24 Tom DeUriarte on my left. I report formally at this point
25 in time to Jim Schuyler, Vice President, Nuclear Power

mgc 1-6

1 Generation, pending arevision to the technical specifications
2 before the NRC for their review, at which point in time, I
3 will be reporting to George Maneatis, Executive Vice President.

4 A (Witness DeUriarte) Currently my job title is
5 Director of Program Management. That is the position I have
6 held for approximately three weeks.

7 Prior to that, I was the Senior Engineer in charge
8 of auditing for the PG&E Quality Assurance Department. That
9 is a position I was in for approximately seven years, and
10 in that position, I was responsible for scheduling, supervising
11 and directing all of the audits that were performed in the
12 PG&E quality assurance program.

13 Q Thank you.

14 Mr. Jacobson, between yourself and Mr. Skidmore,
15 is the relationship between you two gentlemen one that could
16 be described as co-equal, as far as the Diablo Canyon project
17 activities are concerned?

18 A (Witness Jacobson) Well, Mr. Skidmore is the QA
19 Manager for Pacific Gas & Electric, who is fulfilling the
20 role of the licensee in the QA program, and he is
21 responsible for directing the QA program.

22 I am responsible for direction the project's
23 QA program, which functions under their requirements and
24 commitments.

25 Q If a problem were identified, a deficiency, if

mgc 1-7 1 you will, were identified in quality assurance with respect
2 to the Diablo Canyon project activities and corrective
3 action needed to be taken, as between you and Mr. Skidmore,
4 who would have the final word with respect to what corrective
5 action should be taken?

6 A Well, I think that depends on the origin of
7 the deficiency. On the project, we determine what actions
8 are appropriate and take those actions, but PG&E QA is
9 reviewing our program, and if, for example, they had
10 originated the deficiency, then PG&E QA would determine
11 whether or not that action was adequate.

12 Q Mr. Skidmore, can I ask you the same question?
13 If a problem is identified in the Diablo Canyon project
14 organization, and it is identified by them, do you have the
15 capacity to require different corrective action than the
16 corrective action that may be required by Mr. Jacobson?

17 A (Witness Skidmore) Let me break your question
18 down a bit and answer in parts, if I may.

19 If the Diablo Canyon Project identifies a
20 deficiency or problem within their system, they have a
21 quality assurance program with which to handle that, to come
22 to a timely resolution and correct the problem. They are
23 functioning under the umbrella of the PG&E quality assurance
24 program, and in that regard they have to meet our commitments.

25 We come in and do audits, and, in fact, if

mgc 1-8

1 memory serves me right, we have done some 75 audits of their
2 performance on the project since the inception of the Diablo
3 Canyon project, to verify that their program is working,
4 that they are implementing and meeting the commitments they
5 have made to us in their Quality Assurance Manual to handle
6 the project.

7 In that regard, though, if the results of an
8 audit or a review of their activities shows that what they
9 are doing is not sufficient, then by all means we can take
10 remedial steps to straighten that out.

11 Q By those remedial steps, would I be correct in
12 understanding you, that you would be able to require the
13 Diablo Canyon Project to make changes that you felt necessary,
14 and that they would be bound to make those changes?

15 A Under the requirements of Appendix B, it is
16 appropriate to delegate some of the responsibility -- not
17 the responsibility, but the actions necessary to comply with
18 the provisions of Appendix B, but the licensee may not
19 delegate that responsibility. So in meeting our responsibility,
20 by all means, we have to be aware of what they are doing and
21 concur with the corrective actions they are taking.

22
23
24
25

ki 2:1

1 Q Let me ask you, Mr. Jacobson, if a problem was
2 identified originally in your organization, with respect to
3 quality assurance, and you arrived at what you believed was
4 appropriate corrective action, and Mr. Skidmore offered you
5 the opinion that your corrective action was not appropriate,
6 would you feel bound or required to follow Mr. Skidmore's
7 direction?

8 A (Witness Jacobson) Yes, we would. There might be
9 some discussion as to what our interpretation of the require-
10 ments was, so that everyone clearly understood the nature of
11 the problem for the solution, but we would certainly go along
12 with that. Yes.

13 Q So I would be correct, then, if I were to say that
14 Mr. Skidmore has final authority with respect to any corrective
15 action that the Diablo Canyon quality assurance might take?

16 A Yes.

17 Q Mr. De Uriarte -- am I pronouncing your name
18 correctly?

19 A (Witness De Uriarte) Yes sir.

20 Q At page 2 of your testimony, you state that PG&E
21 performed a so-called look-back review of its design quality
22 assurance program. Is that correct?

23 A Yes, sir.

24 Q This review identified failures by PG&E with
25 respect to its service contractors prior to 1978, in the

ki 2:2

1 first instance, to require QA controls.

2 Is that correct?

3 A That's correct.

4 Q An additional failure was the fact that PG&E did
5 not require adequate control of information transmittal. Is
6 that correct?

7 A That's also correct.

8 Q In addition, PG&E did not require adequate control
9 of record-keeping. Is that correct?

10 A That's not exactly correct.

11 Most of the specifications contained a requirement
12 for document control and record retention and storage. The
13 problem there was that most people didn't implement that
14 requirement.

15 Q A final problem identified was inadequate control
16 of interfaces. Is that right?

17 A Inadequate control of interfaces is really the
18 same thing as not control of transmitted information.

19 Q You had separate categories in your testimony, I
20 believe, or at least there were separate categories listed in
21 the look-back review. Or am I wrong about that?

22 A Yes, it does say transmitted information and inter-
23 face control. As far as I'm concerned, those are the same
24 thing.

25 Q You are responsible for preparing this portion of

ki 2:3

1 the testimony?

2 A Part of it, yes.

3 Q Who else participated with you in that particular --

4 A We all did.

5 Q Mr. Skidmore, do you see a distinction between
6 the record-keeping and interface control?

7 A (Witness Skidmore) I agree with what Mr.
8 De Uriarte said on that.

9 JUDGE JOHNSON: Mr. Kaufman, I think you misspoke
10 just now. You said "record-keeping and information." It's
11 information transmittal and interface with service contractors
12 that they are saying are the same thing.

13 MR. KAUFMAN: You're right. I'm sorry. I misspoke.

14 BY MR. KAUFMAN:

15 Q Mr. De Uriarte, in addition, as part of this
16 look-back review, PG&E also discovered that there were three
17 broad categories of deficiencies in its QA program for its
18 own design engineering effort.

19 Is that right?

20 A (Witness De Uriarte) I have to look it up.

21 Q It's on page 3, lines 7, 8, and 9.

22 A Okay. I see where you are.

23 Q The first of these broad categories of deficiencies
24 was inadequate control of FSAR descriptions. Is that right?

25 A Yes.

ki 2:4

XXXX

FORM OR-325 REPORTERS PAPER & MFG CO 800-626-6313

1 Q And the second was inadequate control of documents?

2 A Correct.

3 Q And the third was inadequate documentation of
4 design inputs. Is that correct?

5 A Yes.

6 Q I have in front of me a document labeled Governor's
7 Exhibit 34, which I am going to have to handed to you.

8 (Document distributed to parties, witnesses, and
9 Board.)

10 JUDGE MOORE: Governor's Exhibit 34 is marked
11 for identification.

12 (The document referred to was
13 marked Governor's Exhibit No.
14 34 for identification.)

15 BY MR. KAUFMAN:

16 Q Could you please identify this document for me?

17 A (Witness De Uriarte) Yes. This is a summary report
18 of the internal portion of the look-back review.

19 Q Was this summary prepared under your direction?

20 A I prepared it.

21 Q Does it correctly reflect your views on the subject
22 discussed in it?

23 A Yes, it does.

24 Q Does this summary provide more detail as to the
25 deficiencies and the corrective action taken by PG&E that is

ki 2:5

1 discussed in your testimony?

2 A I believe it does.

3 MR. KAUFMAN: Mr. Chairman, I move that Governor's
4 Exhibit No. 34 be admitted into evidence.

5 MR. HAVIAN: No objection.

6 MR. CHANDLER: No objection.

7 MR. NORTON: No objection.

8 JUDGE MOORE: Governor's Exhibit 34 is admitted.

9 (The document previously marked
10 Governor's Exhibit No. 34 for
11 identification was received
12 in evidence.)

13 BY MR. KAUFMAN:

14 Q Could you please turn to page 5 of that summary?
15 A list of corporate QA deficiencies begins at the second --
16 after the second paragraph on that page.

17 Is that correct?

18 A (Witness De Uriarte) Yes.

19 Q After that deficiency is listed the corrective action
20 that was taken.

21 A That's correct.

22 Q Directing your attention to Arabic No. 1, could you
23 please identify, briefly, the deficiency that that language
24 addresses?

25 A All specifications that leave the Company have to

XXX

ki 2:6

1 have -- for safety-related equipment or services, they are
2 required to have the quality assurance standards specification
3 attached, which states the requirements that the contractor
4 is supposed to have a quality assurance program to meet.

5 What this is stating is that our QA program re-
6 quired that all procurement documents for the purchase of
7 safety-related materials, equipment, and services have that
8 specification attached. And what this is stating, that the
9 implementation of that provision was carried out for suppliers
10 and for field contractors, but somehow it was never carried
11 out for what we refer to as safety-related services. And in
12 that category falls design consultants.

13 Q You indicate that this deficiency was corrected in
14 late 1977, is that right?

15 A Yes.

16 Q Has that problem been completely resolved as far
17 as you're concerned now?

18 A Yes, sir.

19 Q And that no further problems have been identified
20 since 1977. Is that correct?

21 MR. NORTON: Excuse me, Your Honor. May we have
22 a definition of what we mean by "problems"?

23 MR. KAUFMAN: Let me go back and call that a
24 deficiency. We've been dealing with deficiencies.
25

ki 2:7

1 BY MR. KAUFMAN:

2 Q Have any further deficiencies in that regard been
3 identified since 1977?

4 MR. NORTON: Excuse me, Your Honor. Again, I'd like
5 a clarification. The word "deficiencies" --

6 JUDGE MOORE: Mr. Kaufman, I find that same language
7 in this document under Arabic 2. Is that the context you're
8 using it?

9 MR. KAUFMAN: That's right, Mr. Chairman.

10 Also, the term "deficiency" is also utilized in
11 the paragraph immediately following Arabic 1, the beginning
12 of Arabic 1 paragraph.

13 WITNESS DE URIARTE: Do you want to restate your
14 question?

15 BY MR. KAUFMAN:

16 Q Since 1977, has this deficiency arisen again?

17 A (Witness De Uriarte) It is an ongoing part of the
18 QA program to review all procurement documents. And one of
19 the things we check them for is to make sure that if it is
20 a requirement -- if the specification is for safety-related
21 equipment or services, that the QA program specification is
22 attached.

23 So the answer to your question is no.

24 Q No, that no further deficiencies have been identified
25 in this respect?

ki 2:8

1 A Not of this type where the specification was not
2 attached.

3 Q I turn your attention to Arabic 2. Could you
4 please identify the deficiency?

5 A I can read it for you. It says, "Formal training
6 of PG&E personnel and quality assurance program requirements
7 was required by the program. This was a programmatic
8 deficiency."

9 What that is stating is that, unlike No. 1, where
10 the program did have the requirement in it and failed to
11 implement it properly, in the case of No. 2, the program did
12 not state specifically that formal training of quality
13 assurance program requirements was required and for whom it
14 was required.

15 And we tracked through the evolution of the program
16 manual and discovered in 1977 we corrected that.

17 Q While we're on the subject, could you please give
18 me your definition of a programmatic deficiency?

19 A I thought I just did.

20 The quality assurance program, as required by
21 Appendix B, must contain certain requirements, certain wording
22 to require certain activities to happen. And in this case,
23 contrary to the requirements of Appendix B, our program did
24 not specifically require formal training in quality assurance
25 requirements.

1 Q And then you follow that up with your definition
2 of your understanding of the term "deficiency in implementa-
3 tion."

4 A When the program contains the requirement, people
5 are expected to implement that requirement. And when they
6 don't, that is a deficiency in implementation.

7 Q You indicate that the programmatic deficiency with
8 respect to training was corrected in 1977. Has that --

9 Since 1977, has that deficiency ever been identified
10 again?

11 A No. Once it was placed in the program and became
12 a written requirement as part of the program, it would not
13 surface again.

14 Q Have any deficiencies in implementation with
15 respect to training been identified since 1977?

16 A No, sir. Training is something we audit once a
17 year for Regulatory Guide 1.33.

18 Q Turning your attention to Arabic 3, could you
19 briefly describe what the deficiency was there?

20 A Again, this was a programmatic deficiency. The
21 corporate QA program did not specifically state that there
22 was a required interface control between PG&E and its design
23 consultants, and I think the key point there is that we
24 investigated this quite thoroughly at the time, to make sure
25 that what was missing in implementation was that -- let me

ki 2:10

1 state that differently.

2 We were not able to find a problem in internal
3 interfaces. The problem we discovered was in external inter-
4 faces between PG&E and its design consultants. There did not
5 appear to be any evidence of problems between PG&E and its
6 suppliers. So this, again, was a programmatic deficiency,
7 specifically stated as an interface control between PG&E and
8 design consultants.

9 Q You state this problem was corrected in 1977?

10 A Again, it was in 1977 --

11 Q Sorry. This deficiency.

12 A Yes.

13 Q Since 1977, have any programmatic deficiencies been
14 identified with respect to --

15 A Again, once the program is corrected, it will not
16 occur again. The program is ongoing.

17 MR. CHANDLER: Mr. Chairman, can I ask that the
18 witness at least allow the question to be completed? It's
19 causing a little difficulty -- at least putting everything in
20 proper context.

21 JUDGE MOORE: I think that the witness and the
22 questioner have got it sorted out now, Mr. Chandler.

23 Go ahead, Mr. Kaufman.

24 BY MR. KAUFMAN:

25 Q Since 1977, have any deficiencies in this regard

ki 2:11

1 been identified?

2 A (Witness De Uriarte) No, sir.

3 Q In implementation?

4 A In implementation of interface control?

5 Q Yes.

End 2

mgc 3-1

1 A I can't recall any.

2 Q Turning your attention to Arabic 4, could you
3 briefly summarize the deficiency noted there?

4 A Okay. This deficiency refers to the requirement
5 in Appendix B for document control and procedures and
6 instructions, and the requirement is that procedures and
7 instructions be issued, approved and controlled for
8 safety-related activities,

9 In our look-back review -- and again, this was
10 related to the training aspect -- we were looking for how
11 individuals were instructed to do their activities in
12 accordance with the QA Manual, and we discovered, I would say,
13 three or four dozen memos in the files that dealt with how
14 to carry out activities, how to meet requirements. These
15 memos were not part of a formal program where they were
16 numbered, dated and controlled in some way, and the distri-
17 bution of them controlled in some way, and so what this item
18 here is dealing with is the fact that these memos and
19 departmental procedures which were developed by the Design
20 Group did, in deed, implement quality assurance requirements,
21 gave further instruction on how to implement requirements,
22 but they were not controlled documents.

23 So this was again a deficiency in implementation.

24 Q You indicate that this deficiency in
25 implementation was corrected in 1978; is that right?

mgc 3-2

1 A That's correct.

2 Q Since 1978, have any deficiencies in this regard,
3 with respect to implementation, been identified?

4 A No, sir.

5 Q Going to Arabic 5, could you briefly describe
6 the deficiency noted there?

7 A Okay. What this is dealing with is the fact
8 that again Appendix B requires that all discrepancies found
9 be identified, documented and resolved for disposition.

10 Our program dealt specifically with discrepancies
11 found in the field, or if you want to use the term "construc-
12 tion" discrepancies. In the look-back review and also in the
13 Reedy review, it was stated several times that this was
14 pretty much the state-of-the-art at the time that our manual
15 was written. Everyone more or less identified non-conformances
16 with equipment or hardware, and therefore our procedure
17 was written on how to control non-conformances identified in
18 the field.

19 What this is stating is that there was no
20 requirement for non-conformance identification during design
21 activities. This, again, was a programmatic deficiency.

22 Q You indicate that this deficiency was correct;
23 however, I do not see a date in the description of the
24 correction. When did that correction occur?

25 A That was in September of 1975, when the operating

mgc 3-3 1 nuclear power manual was issued, and the manual, at that time,
2 contained a procedure entitled "Non-conformances," and that
3 procedure applied to all departments, not just the Operating
4 Department.

5 Q So the programmatic correction occurred in 1975;
6 is that right?'

7 A September of 1975; that's correct.

8 Q Since 1975, has any problem in this regard --
9 I'm sorry -- any deficiency in this regard been identified
10 insofar as implementation of this procedure been identified?

11 A I don't recall any.

12 Q Mr. Skidmore, may I ask you what you whispered to
13 Mr. DeUriarte?

14 A (Witness Skidmore) I was asking him about the
15 scope of some of the audits, about findings we might have
16 had, and the answer was, there wasn't anything in these areas.
17 I was just trying to make sure that I understood his answer
18 full well.

19 JUDGE MOORE: Move it along, Mr. Kaufman.

20 BY MR. KAUFMAN:

21 Q Arabic 6, Mr. DeUriarte, could you describe
22 the deficiency noted there?

23 A (Witness DeUriarte) Okay. The quality assurance
24 program contained a procedure called -- I believe it was
25 titled the "Document Index" in the early stages of the

mgc 3-4

1 program. That procedure was intended to be expanded into
2 how to identify and how to retain and store nuclear records.
3 It was never fully revised, because the program was continually
4 changing in how we were going to deal with requirements for
5 records on site.

6 What this is identifying is that the program in
7 the early years didn't identify how to retain and store
8 records. This, again, was a programmatic deficiency, and
9 this was corrected by the issuance of the Records Management
10 System Handbook in April of 1979.

11 Q Since 1979, has any deficiency been noted with
12 respect to the implementation of this requirement?

13 A No, sir.

14 Q Arabic 7, could you briefly describe the
15 deficiency noted there?

16 A Okay. This one is related to Item 4, which
17 dealt with the memos and instructions which were issued
18 within the Engineering Department, which were uncontrolled,
19 and what this is stating is that safety-related activities
20 are required to be audited, and since those were not controlled
21 documents and many of them we were not aware of at the time
22 they were issued, they were not audited for implementation
23 of those instructions, and that is what this is identifying.

24 Q And this was corrected in April of 1978; is
25 that right?

mgc 3-5

1 A Again when those types of documents were
2 required by the manual to be controlled documents. We felt
3 that that covered it, because at that time anything that
4 was listed in the manual goes on the audit schedule.

5 Q Since April of 1978, have any deficiencies been
6 noted with respect to the implementation of this requirement?

7 A No, sir.

8 Q On Page 7 of the look-back review, you describe
9 deficiencies during the Phase II period of the look-back
10 review. Could you describe what "Phase II" refers to?

11 A "Phase II" refers to the NRC Order. Phase I was
12 seismic work prior to June of '78. Phase II was seismic
13 work post-June of '78 and all other work prior to '78
14 and post-'78, all non-seismic work.

15 Q After that brief paragraph, there are -- there's
16 Arabic Nos. 1 through 4, listing certain deficiencies with
17 respect to Phase II QA activities.

18 Directing your attention to Arabic 1 --

19 MR. NORTON: Excuse me, Your Honor.

20 Excuse me, Mr. Kaufman.

21 The language here is important. He has made a
22 statement. Now he is going to ask a question. Unfortunately
23 the statement gets subsumed in the question, and he is
24 using the term "deficiencies," and as I look through here,
25 I see things like "non-conformance reports." I see the word

mgc 3-6

1 "poor implementation," and I am quickly looking, but I don't
2 see "deficiencies." I see "discrepancies." And these terms
3 are very important. And when they come out in a statement,
4 and then you ask a question, the witness is not apt to catch
5 that word back in the statement of Mr. Kaufman's.

6 I would appreciate it if we could get a definition
7 of terms, perhaps, or at least a consistent use of terms.

8 JUDGE MOORE: You might try to accomodate
9 Mr. Norton, but if the witness has problems, the witness can
10 say he has problems, Mr. Norton.

11 Continue, Mr. Kaufman.

12 BY MR. KAUFMAN:

13 Q Well, the subject matter of Arabic 1, does that
14 describe a deficiency, a discrepancy or something else?

15 A (Witness DeUriarte) Okay. Going back to our
16 definitions that we used previously, there was a programmatic
17 requirement that changes be controlled. And what we identified
18 in the look-back was that No. 1, the Final Safety Analysis
19 for Diablo Canyon ~~was~~ not intended, when it was written, to
20 be a desing document, but we found in some instances it had
21 been referred to because it contained complete system
22 descriptions. It had been referred to as a design document.

23 And what this is stating is that some of those
24 sections of the FSAR due to HOSGRI review, due to fire
25 protection reviews which came from later requirements, had

mgc 3-7

1 been changed somewhat, but the FSAR sections had not been
2 updated. And what this is stating is that there was no
3 procedure in existence which required the control of changes
4 to the FSAR sections.

5 Q In your opinion, is this a programmatic
6 deficiency?

7 A This was an implementation deficiency. There was
8 a programmatic requirement to control changes, and these
9 changes were not controlled.

10 First of all, they were not identified as changes
11 in design input, because the FSAR was not intended to be a
12 design document. It was something that happened over the
13 evolution of time. People started referring to the FSAR, and
14 no one really fully realized that the sections that had been
15 changed had been used for design inputs in some systems.

16 Q Well, looking at the language right after the
17 Arabic 1 which say, "Procedures did not exist for controlling,"
18 I thought you stated in your definition of the programmatic
19 deficiency earlier, that a programmatic deficiency was on in
20 which a procedure did not exist.

21 A Okay. I see your confusion. The procedure referred
22 to here is a lower-tier procedure which we would call an
23 implementing procedure. The quality assurance program
24 required controlled changes, and there are lower-tier
25 procedures written by the different departments which implement

mgc 3-8

1 those requirements. There was no procedure in the Engineering
2 Department for controlling changes to the FSAR.

3 Q And again, you would not consider a lower-tier
4 procedure to be -- to ever be -- the absence of a lower-tier
5 procedure to be a programmatic deficiency?

6 A In this case, we considered it a deficiency in
7 implementation, because it did not implement the QA manual
8 requirement.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

ki 4:1

1 This item 1 deals with a very subtle problem.
2 I'm not sure I've clarified it very well. But, again, the
3 reason that the procedure did not exist is the FSAR was not
4 intended to be a design document, and it was used in only a
5 few instances as reference for design information.

6 Q Thank you.

7 I'm not sure that we came to closure on another
8 question which was, the difference between a discrepancy and
9 a deficiency.

10 Is there a difference?

11 A Not to me.

12 Q It appears in this document, in the look-back
13 review summary, that action was taken to correct this
14 deficiency, but there is no indication as to whether that
15 action has completely resolved the problem or, if it did,
16 when that occurred.

17 A Okay. As it states, a nonconformance report was
18 initiated to resolve this discrepancy. And I see where you
19 got the word "discrepancy."

20 What that means is, if we consider the problem
21 found or the deficiency found, the discrepancy found, you
22 can use any words you want, some judgment has to be used as
23 to what is the significance of this deficiency.

24 Is it a departmental problem? Does it cross
25 departmental interfaces? In this case, we felt that the FSAR

ki 4:2

1 which is used by everyone for a reference involves all
2 departments, and therefore, a nonconformance report was
3 written, which requires what we call a technical review group
4 to meet, to resolve this item.

5 And that requires all involved departments meet
6 or have a representative on that technical review group. And
7 at the time this was written, the resolution which was arrived
8 at was that a procedure had to be developed to control changes
9 of the FSAR. FSAR sections which were still being used had
10 to be reviewed and brought up to current status before they
11 could be released to anyone. And that NCR is still open,
12 pending the completion of the FSAR, which is a very long-term
13 project.

14 It is my belief, and we have audited this several
15 times, that any information that is now being used from the
16 FSAR has been reviewed by the technical group and brought up
17 to current status.

18 Q But you're not absolutely certain of that fact?

19 A I'm certain of that fact, to the extent that it
20 has been audited. And I have seen no deficiencies.

21 JUDGE BUCK: Excuse me. May I ask a question
22 here?

23 MR. KAUFMAN: Sure.

24 JUDGE BUCK: Does that mean you are still, in some
25 ways, using the FSAR as a design document?

ki 4:3

1 WITNESS DE URIARTE: I don't know if it is still
2 being used, sir. I can't answer that.

3 JUDGE BUCK: But that is not supposed to be used --

4 WITNESS DE URIARTE: When the project started,
5 when the Diablo Canyon project integrated group started, one
6 of the first things they went through was developing design
7 criteria memorandums for all design.

8 So it's my understanding that they are no longer
9 using the FSAR because design criteria memos have been pre-
10 pared.

11 WITNESS SKIDMORE: Dr. Buck, if I could add to that,
12 please.

13 If reliance is -- for design information, is
14 identified as coming from the FSAR, in all cases that must
15 be verified as to its accuracy before it can be used.

16 JUDGE BUCK: Verified in what form? By a supervisor,
17 another engineer, or what?

18 WITNESS SKIDMORE: By comparing it to other documents
19 in the file, the drawings, the as-built condition of the
20 plant, talking to the other disciplines.

21 JUDGE BUCK: So you are saying that the engineer is
22 not allowed to use the FSAR as a final design document?

23 WITNESS SKIDMORE: Yes, and then just reference the
24 FSAR and a chapter and page number as his source of information,
25 without additional backup to verify its validity.

ki 4:4

1 JUDGE BUCK: He has to reference those for the
2 backups.

3 WITNESS SKIDMORE: Yes, he does.

4 JUDGE BUCK: Thank you.

5 Excuse me, Mr. Kaufman.

6 JUDGE JOHNSON: Can I follow that, and maybe this
7 is -- maybe this question doesn't follow -- but just yesterday
8 we looked at a document which governed the procedures for
9 considering jet impingement.

10 Were you in the audience yesterday?

11 WITNESS DE URIARTE: Are you speaking to me?

12 JUDGE JOHNSON: I was talking to Mr. Skidmore, but
13 either one of you --

14 WITNESS DE URIARTE: I was not.

15 JUDGE JOHNSON: It was Mr. Skidmore, I think --

16 WITNESS SKIDMORE: I was here yesterday morning
17 and part of the afternoon.

18 MR. NORTON: Excuse, Mr. Dr. Johnson. I believe
19 that was the day before yesterday, and Mr. Skidmore was not
20 here that day. I'm pretty sure it was the day before yesterday.

21 JUDGE JOHNSON: Yes, I think you're right.

22 But anyway, there was a procedure for carrying out
23 a walkdown to analyze whether jet impingement was to be
24 considered for various pieces of equipment and lines inside
25 containment. And now that document referenced the FSAR at

ki 4:5

1 some point.

2 And, in terms of what you have just said, that
3 the project is no longer using the FSAR as a source of design
4 information, would that have been an improper use of the FSAR,
5 or are you so unfamiliar with what I'm talking about that you
6 can't answer, in which case I would say that was a fair
7 answer?

8 WITNESS DE URIARTE: I'm not sure what you're
9 talking about.

10 WITNESS SKIDMORE: Let me clarify my previous
11 answer.

12 I was talking about referring to material obtained
13 from the FSAR, as a sole source, has to be verified. You
14 can't rely just on the FSAR. You have to look at other
15 documentation in addition. It's quite all right to refer to
16 it, because there's a lot of information there.

17 As to how current it is, in view of the updating
18 effort that is being done within the licensing group, the
19 updating of the FSAR, the current condition of the plant, you
20 can't rely on the FSAR solely.

21 MR. NORTON: Excuse me, Dr. Johnson. I guess this
22 is an objection to your question.

23 I think there's a distinction between design informa-
24 tion and licensing requirements, however. You said that that
25 reference was to design information. I think there's a

ki 4:6

1 distinction between design information, like how high something
2 is, as opposed to a licensing criteria or licensing commitment,
3 which is not, in my mind, design information.

4 JUDGE JOHNSON: I accept that as a clarification.
5 of what I was talking about, and I think I have gone as far
6 as I can on that right now.

7 So back to you, Mr. Kaufman.

8 JUDGE BUCK: May I just ask one further question?

9 I gather from all this, that in a walkdown check,
10 the reviewers in that walkdown are not allowed to use the FSAR
11 as the document, final document to which they are comparing
12 the as-built situation? They have to go beyond the FSAR in
13 saying whether the as-built is correct or not correct.

14 WITNESS DICK: May I add something there, Steve?

15 WITNESS SKIDMORE: Go ahead.

16 WITNESS DICK: Yes, sir, Dr. Buck. That's entirely
17 true. Take a walkdown, go through the walkdown process;
18 there's a specific procedure to describe how that's done.

19 And these gentlemen describing it could reference
20 back to an FSAR criteria or basic requirement. The people
21 performing the walkdown activity would not have the FSAR
22 section --

23 JUDGE BUCK: Thank you.

24 BY MR. KAUFMAN:

25 Q Mr. De Uriarte, in referring back to Arabic 1, when

ki 4:7

1 was this nonconformance report first opened?

2 A (Witness De Uriarte) During the look-back review,
3 approximately January 1982.

4 Q And again, the FSAR has not been updated --

5 A Not totally.

6 Q What is the projected completion date for updating
7 the FSAR?

8 A I'm not sure I can answer that. The licensing
9 group is responsible for scheduling and completing this activity,
10 along with input from all the disciplines. I don't know what
11 the schedule is at this point.

12 WITNESS SKIDMORE: Excuse me. Maybe I can add to
13 that.

14 It's my recollection it's a dated requirement, with
15 the initial time is two years after receipt of an operating
16 license. We have one for two weeks, so I think the clock
17 stopped almost two years ago. So it's a moving target,
18 depending on when you get an operating license, is my recollec-
19 tion back over the years.

20 Q Mr. Skidmore, is it your position that you don't
21 have an operating licenses for purposes of this commitment?

22 A We have a suspended.

23 Q Could you answer the question, please?

24 A I think I did. It's a suspended at this point in
25 time.

ki 4:8

1 Q So your commitment is suspended, the requirement
2 is suspended?

3 A I'm trying to add to the answer, to make it as
4 full and complete as I can. As to how that requirement for
5 updating the FSAR, there are others in the room that I think
6 could fill in the details from there on. That's the extent
7 of my knowledge.

8 Q Is your answer that you don't know?

9 MR. NORTON: Excuse me. What is the question?

10 BY MR. KAUFMAN:

11 Q Whether the commitment has been suspended or not;
12 whether you have stopped attempting to try to meet the
13 commitment because of the suspension of the license.

14 A (Witness Skidmore) I can't answer that.

15 Q Mr. De Uriarte, I direct your attention to Arabic
16 2. Could you describe the deficiency noted there?

17 A (Witness De Uriarte) Okay. What item 2 deals with
18 is the routing of design change notices, not only for review
19 and approval, but for information purposes.

20 During the look-back, it was determined that design
21 change notices are also routed to the operating department for
22 the plant staff review committee to review. The procedure did
23 not require that. What this is stating is that existing pro-
24 cedures which control the routing design change notices have
25 not been updated to reflect current practices.

ki 4:9

1 Again, since the plant neared the operating stage
2 several times, the operating department became a functioning
3 organization onsite, the plant staff review committee started
4 meeting regularly, one of their requirements is that they
5 review design changes.

6 The procedure was never really updated to include
7 them. That's what this is dealing with.

8 Q Has this deficiency been resolved at this time?
9 There's no date indicated on the corrected action that is
10 indicated in the look-back summary.

11 A I don't know the answer to that.

12 Q Turning to Arabic 3, again, could you briefly
13 describe the deficiency noted there?

14 A Yes. The design change notice form has a front
15 and a back to it. And on the back, there are various questions
16 dealing with, does this design change affect -- and it has a
17 list of things; for instance, FSAR, seismic criteria, items
18 like that.

19 The review that it is referring to is that review
20 to determine whether the design change effects, a licensing
21 submittal, or a licensing requirement could have been stated
22 there.

23 It was determined during our review in Phase II
24 that several forms were found that were blank. They were
25 not checked yes or no, and in requiring those to be re-reviewed

ki 4:10

1 and filled out completely, we determined that some engineers
2 who are new to the project were unaware of what the licensing
3 requirements may be in that particular area. And what this
4 is identifying is that those engineers were not properly
5 trained to do the review that they were being asked to do.

6 Q Let's go to Arabic 4.

7 JUDGE JOHNSON: May I follow up on that?

8 This, then, in fact a training deficiency, as
9 much as it is a paperwork deficiency.

10 WITNESS DE URIARTE: I guess you could say that.
11 Part of the technical review group's finding was proper train-
12 ing would have eliminated this.

13 JUDGE JOHNSON: Right. Earlier, though, in this
14 document, you identified a programmatic deficiency in lack
15 of training of PG&E personnel in quality assurance.

16 WITNESS DE URIARTE: Yes.

17 JUDGE JOHNSON: You said this was corrected in
18 1977. Now, these instances in which the design change forms
19 were not properly filled out, did these occur subsequent to
20 1977?

21 WITNESS DE URIARTE: These were prior to 1977.

22 JUDGE JOHNSON: Prior to 1977.

23 WITNESS DE URIARTE: Yes.

24 JUDGE JOHNSON: So the training, then, at least in
25 terms of this particular requirement, was effective. Is that

ki 4:11

1 a conclusion you could draw from this?

2 WITNESS DE URIARTE: I don't remember the details
3 of our investigation on the time break on the DCNs, how far
4 back and how far forward we went. I do recall that the several
5 that I looked at that were blank were pre-1977. They were
6 very early in the project.

7 JUDGE JOHNSON: Would your audits now of quality
8 assurance performance routinely check to make sure that these
9 forms are properly filled out?

10 WITNESS DE URIARTE: The audit that would do that
11 would be a followup audit to closure of this item, and that
12 has already been done. And there were no findings.

13 JUDGE JOHNSON: Thank you.

14 JUDGE BUCK: Isn't there a problem here between
15 training and indoctrination, which I think is a little bit
16 different; you're not training much of engineers to doing
17 engineering, but it's indoctrination to the plant's procedures.

18 I don't know whether this would come under your
19 training program or something else.

20 WITNESS DE URIARTE: Yes, sir.

21 JUDGE BUCK: Does it, or doesn't it?

22 WITNESS DE URIARTE: The program was called training
23 and indoctrination.

24 JUDGE BUCK: Thank you.

25

ki 4:12

1 BY MR. KAUFMAN:

2 Q I'm a little bit confused by your answer to
3 Dr. Johnson's question. Insofar as you said that these
4 problems in Arabic 3, that are deficiencies in Arabic 3, all
5 occurred before 1977, but you have located these problems or
6 these deficiencies as part of the Phase II look-back review,
7 my understanding of Phase II is that this is a period in
8 time subsequent to 1978?

9 A (Witness De Uriarte) It's seismic activities,
10 post June of '78, and all non-seismic work from the
11 beginning of the project.

End 4

mgc 5-1

1 Q Has this non-conformance been closed?

2 A Yes, sir. It states that in the paragraph.
3 Shortly after this NCR was dispositioned, the Diablo Canyon
4 Project organization, consisting of both Bechtel and PG&E
5 personnel, was formed, and that organization now is
6 responsible for control of DCN reviews. They use a procedure
7 that was developed after the beginning of that project.

8 Q My understanding was, the responsibility for the
9 closing out of this item has been delegated to the DCP?

10 A Well, the item was closed, as far as doing the
11 review of DCNs and changing the program to meet the
12 requirement.

13 What this is stating is that the organization
14 now responsible is the Diablo Canyon Project. They work with
15 a different procedure.

16 Q Responsible for closing it out, or responsible --

17 A Responsible for implementing it from when they
18 start it forward.

19 Q So your organization closed it out at the time
20 it turned the matter over to DCP?

21 A We didn't really turn it over to them. Control
22 of DCNs is an ongoing activity. But the activity now falls
23 under their program.

24 Q Turning to Arabic 4, can you describe the
25 deficiency noted there?

mgc 5-2

1 A What this is stating is that the organization
2 had changed. Dealing with the Nuclear Power Generation
3 Department was organized, I believe, somewhere around 1979,
4 1980, and the Project Engineer, who was in the Engineering
5 Department, then became the Manager of Projects under the
6 Nuclear Power Generation Department.

7 What this is stating is that organizational
8 procedures failed to update that.

9 Q Okay. Thank you.

10 In your view were the deficiencies noted applicable
11 to seismis as well -- equally applicable to seismic as well
12 as non-seismic design?

13 MR. NORTON: Excuse me, Your Honor.

14 I believe we have had at least eleven or twelve
15 deficiencies talked about, and that is, therefore, an eleven
16 or twelve multiple question.

17 MR. KAUFMAN: Mr. Chairman, if the witness --

18 JUDGE MOORE: It can be answered, however. There
19 is one possibility out of all those, Mr. Norton, and the
20 witness, if he's not going to hit it, let's let him try.

21 Go ahead, Mr. Kaufman.

22 WITNESS DE URIARTE: I will answer that. The
23 first section that we looked at --

24 JUDGE MOORE: He's going to specify it for you,
25 Mr. Norton. You have trained him well.

mgc 5-3

1 MR. NORTON: That doesn't make the question
2 any more proper.

3 WITNESS DE URIARTE: The first section that we
4 looked at here deals with QA Manual deficiencies and
5 implementations. All of those apply to all work.

6 In the Phase II FSAR sections apply to all work.
7 Some are seismic; some are non-seismic. The control of
8 Design Change Notices applies to all work, seismic or non-
9 seismic.

10 The last one, dealing with organization, I suppose
11 that deals also with seismic and non-seismic activities.
12 The problem there was the routing of documents and the
13 reporting of certain information.

14 BY MR. KAUFMAN:

15 Q Would it be correct to state that the overall
16 QA program was vastly improved from the Phase I period to
17 the Phase II period?

18 .. MR. NORTON: Excuse me, Your Honor. I think I
19 understand what he means, but Phase II is the beginning of
20 the project to the end of the project. Phase I is the
21 beginning of the project to 1978, so I have a little
22 problem.

23 MR. KAUFMAN: That's a fair question. Let me
24 ask this.
25

mgc 5-4

BY MR. KAUFMAN:

Q Was there a vast improvement in PG&E's quality assurance program after 1977?

A (Witness De Uriarte) Well, I think as we state in here, our findings in the look-back indicated that implementation of the program was improved in the Phase II period, what we are calling the Phase II period here, which is post-'78.

The program was found to have two deficiencies in the Phase I period. That was the lack of a procedure to require non-conformances to be identified in design activities, and the lack of a procedure requiring strict interface controls with design consultants.

Other than those two items, the program was complete, and in the Phase II period we found less problems with implementation that we did in the Phase I period.

Q I guess Mr. Norton and I are having the same problem. I picked up on your description --

JUDGE MOORE: You are having problems with the witness' answer. Mr. Norton is having problems with your question.

(Laughter.)

MR. KAUFMAN: All right.

BY MR. KAUFMAN:

Q I understood you to use Phase I as the period

mgc 5-5 1 prior to 1977 and Phase II as the period subsequent to 1977.

2 A (Witness DeUriarte) It's 1978.

3 Q It's 1978. But now that Mr. Norton noted that
4 the Phase II review -- and you previously testified that the
5 Phase II review covered all periods of time from --

6 A For non-seismic.

7 Q For non-seismic.

8 MR. NORTON: Coule we perhaps just use the date
9 and drop the "Phase I, Phase II"?

10 MR. KAUFMAN: Okay. In the answers, I would
11 appreciate if you would do that. That would perhaps make it
12 easier for all of us.

13 WITNESS DE URIARTE: Okay. What I stated in
14 my answer was that implementation of the program was found
15 to be better after 1978 than it was prior to 1978.

16 BY MR. KAUFMAN:

17 Q Okay, then, directing your attention to Page 7
18 of the look-back review summary, at the paragraph beginning
19 at the top of the term where you use the term "the Phase II
20 review," are you referring to post-1978 QA activities?

21 A (Witness DeUriarte) Again, what Phase II is
22 referring to here is the Phase II that was identified in the
23 NRC letter of November 19, 1981, and what that stated was,
24 seismic work post-June 1978 and all non-seismic work from
25 the beginning of Diablo Canyon.

mgc 5-6

1 Q Okay. Would it be correct to state that there
2 were no programmatic deficiencies in PG&E's QA program
3 subsequent to 1978?

4 A Yes.

5 Q I believe you testified that there were, however,
6 implementation deficiencies noted subsequent to 1978, and
7 that one of those deficiencies was the interface between
8 PG&E and its service contractors; is that correct?

9 A Did you say "after 1978"?

10 Q After 1978.

11 A No, sir. The interface problem was prior to
12 1978.

13 Q So that subsequent to 1978, there were no
14 deficiencies in the interface between PG&E and its service
15 subcontractors; is that correct?

16 A Our audits have not revealed any.

17 Q I have before me a document labeled Governor's
18 Exhibit 43. I am going to have that handed to you.

19 MR. NORTON: Excuse me. Are you supplying more
20 than just one copy to the panel, because there's four
21 people up there, and the people at the other end can't see
22 it.

23 MR. STRUMWASSER: I'm glad you said that. No,
24 we can't. We don't have them.

25 JUDGE BUCK: You can use one of these.

mgc 507

1 (Documents distributed to Board, parties and
2 witnesses).

3 JUDGE MOORE: Governor's Exhibit 43 is marked
4 for Identification.

5 (The document referred to
6 was marked Governor's Exhibit
7 No. 43 for Identification.)

8 JUDGE MOORE: Proceed, Mr. Kaufman.

9 BY MR. KAUFMAN:

10 Q Could you identify this document for me, please?

11 A (Witness DeUriarte) Yes. This is a Non-conformance
12 Report.

13 Q Would you please read the description of the
14 non-conformance noted on that document?

15 A Okay. "The URS/Blume quality assurance program
16 for work on the Diablo Canyon Project has not been effectively
17 implemented. See attached program deficiencies, Audit
18 Findings No. 91605-1 through 91605-7."

19 Q Are you familiar with those deficiencies?

20 A Somewhat.

21 Q And what do they involve?

22 A Well, the Deficiencies Nos. 1 through 7 dealt
23 with different sections of the Blume QA program that had
24 not been properly implemented by URS/Blume.

25 Q What were those?

mgc 5-8

1 A I don't recall them specifically.

2 Q Do you recall Item No. 6 on that Non-conformance
3 Report as the cause of non-conformance? Could you please
4 read that to us aloud?

5 A "Scheduling constraints led to deficiencies in
6 effective implementation of quality assurance programs, and
7 also lack of detail in contract documents with respect to
8 quality assurance requirements."

9 Q And when did that occur?

10 A This was originated in April of 1979.

11 Q So the deficiencies were noted in that timeframe?

12 A The deficiencies were noted probably thirty or
13 forty days before that. This would have been written at the
14 time that the report was finalized.

15 Q I have before me a document described as Governor's
16 Exhibit 44. I am going to have that handed to you.

17 MR. NORTON: Your Honor, I believe the Governor --
18 and I can't seem to find that sheet of paper where they
19 submitted times, but my memory was that it was three or four
20 hours that they plan on cross-examining the Quality Assurance
21 Panel. We have now been at it almost an hour and fifteen
22 minutes, and we haven't addressed any of the contentions
23 yet. I thought we were not addressing pre-1981 in this
24 hearing. The question before this Board is whether the
25 quality assurance program since '81 was defective.

mgc 5-9

1 JUDGE MOORE: Mr. Kaufman, a response?

2 MR. KAUFMAN: Mr. Chairman, the subject matter
3 of quality assurance prior to 1991 is directly addressed
4 in their testimony on Page 3. They specifically refer to
5 the look-back review, specifically refer to quality assurance
6 1978. I am merely following up on subject matter that they
7 have opened up by their testimony.

8 MR. NORTON: Excuse me, Your Honor. That
9 addresses the contention as to whether or not basic causes
10 were looked at. That is the contention of the Governor --
11 basic causes. They haven't asked a question yet about
12 basic causes.

13 JUDGE MOORE: Mr. Kaufman, Mr. Norton has a very
14 valid point. Pursuing their testimony is one thing, but do
15 hook it up or move on to another subject.

16 We are talking root causes here essentially. You
17 haven't hooked it up with anything like that.

18 MR. KAUFMAN: Well, Mr. Chairman, they say that
19 these were -- that they identified basic causes for all
20 quality assurance deficiencies noted, and that is what we
21 are attempting to identify, whether they really have
22 accomplished that.

23 (Document distributed to Board, parties and
24 witnesses.)
25

mgc 5-10 1

(The document referred to
was marked Governor's Exhibit
No. 44 for Identification.)

BY MR. KAUFMAN:

Q Do you have the document distributed before you?

A (Witness DeUriarte) Yes.

Q Could you read the description of the non-
conformance?

A "No clearly defined design interface between
Blume and the Engineering Department as required by
ANSI N45.2.11 (Sections 2.2 and 5.1). The Engineering
Department Manual does not require that design interfaces
be identified and controlled between PG&E, Blume and
other architect engineers."

Q Would you read the suggested resolution?

A "Define the design interfaces between PG&E,
Blume and other architect engineers, revise Engineering
Department Manual to require design control measures as
specified in the ANSI standard."

Q Could you identify or read the cause of the
non-conformance listed?

A "No requirement in Engineering Procedures
Manual."

Q Do you consider this to be the basic cause of
that deficiency?

mgc 5-11 1

Q Is this a deficiency in design interface control?

2

A Yes, it is.

3

Q Would you then like to change the answer you

4

previously gave that there were no deficiencies identified

5

with respect to design interface control subsequent to

6

1977 -- '78, I'm sorry?

7

A I'm not sure how to explain the difference between

8

this situation and what was -- what I was talking about

9

before. But the Blume interface is really what brought up

10

the whole problem in the first place.

11

Now it could be that our date of 1978 is

12

incorrect; it should have been 1979. But the Blume

13

interface is really the interface that was identified as

14

being not controlled in the very beginning.

15

Q So your answer is that you would change your

16

testimony?

17

A I would change the date, yes.

18

Q So your testimony is now that subsequent to

19

May of 1979 -- have I got the date right; May of 1979? --

20

no further deficiencies in design interface control have

21

been identified?

22

A That's correct.

23

MR. KAUFMAN: Mr. Chairman, I would move that

24

Governor's Exhibits 43 and 44 be admitting into evidence.

25

JUDGE MOORE: Any objection?

mgc 5-12

1 MR. HAVIAN: No objection.

2 MR. NORTON: No objection.

3 MR. CHANDLER: No objection.

4 JUDGE MOORE: Governor's Exhibits No. 43 and
5 44 are admitted.

6 (The documents previously
7 marked Governor's Exhibit
8 Nos. 43 and 44 for Identifi-
9 cation were received in
10 evidence.)

11 BY MR. KAUFMAN:

12 Q Mr. DeUriarte, is it your testimony that as of
13 November 1981, PG&E's quality assurance program was in full
14 compliance with all of its quality assurance license
15 commitments and commitments of the -- requirements of the
16 Nuclear Regulatory Commission?

17 A (Witness DeUriarte) Yes.

18 Q Would your testimony be the same insofar as the
19 implementation of the quality assurance program is
20 concerned -- design quality assurance?

21 A Yes, I would say so. Implementation deficiencies
22 are found in almost every audit of every activity, but
23 I believe implementation of the program has been effective.

24 Q In 1982, did PG&E contract with any independent
25 organizations for an assessment of its then-current

mgc 5-13

1 design quality assurance program?

2 A I'm sorry. I missed the first part of your
3 question.

4 Q In 1982, did PG&E contract with any independent
5 organizations for an assessment of its then-current design
6 quality assurance program?

7 A The only one I can think of is the Reedy review.

8 Q I have before me Governor's Exhibit 35, which
9 I will have handed to you.

ki 6:1

XXXX

1 (Document distributed to Board, parties, and
2 witnesses.)

3 JUDGE MOORE: Governor's Exhibit No. 34 is marked
4 for identification.

5 (The document referred to was
6 marked Governor's Exhibit
7 No. 34 for identification.)

8 Proceed, Mr. Kaufman.

9 BY MR. KAUFMAN:

10 Q Could you identify that document for me?

11 A (Witness De Uriarte) Yes. This is a review report,
12 prepared by Project Assistance Corporation.

13 Q And what is the review of?

14 A It is a review of the quality assurance program.

15 Q Have you ever seen this report before?

16 A Yes, I have.

17 Q And what period of time does this report cover?

18 A Well, it's written at the top May-June 1982, but
19 I don't know whose handwriting that is. I don't really
20 recall the review period.

21 Q Is there any other member of the panel who is
22 familiar with this report, or might have seen it before?

23 A (Witness Jacobson) I have not seen it.

24 A (Witness Dick) I have not.

25 Q Mr. Skidmore?

ki 6:2

1 A (Witness Skidmore) Just a minute, please.

2 I don't remember seeing this, no.

3 Q Let me direct your attention, Mr. Skidmore, to
4 Roman numeral I, first sentence. That sentence reads that,
5 "Project Assistance Corporation has completed the quality
6 assurance manual evaluation portion of contract No. 31-07-82."

7 Does that indicate to you that this contract was
8 performed in 1982?

9 A I'm not familiar with how the dates are reflected
10 on the contract numbers. The number 82 appears there, and
11 there is some handwriting at the top of the document that
12 talks about May through June '82.

13 A (Witness De Uriarte) I can answer your question.
14 That is correct.

15 Q Thank you.

16 Would you turn to page 3 of that report, under
17 paragraph D --

18 MR. NORTON: Excuse me, Your Honor, maybe I missed
19 something. Did somebody verify this document? Has there
20 been any foundation laid for this document?

21 JUDGE MOORE: No, Mr. Moore, there hasn't.

22 MR. NORTON: May we ask some foundation be laid
23 before we cross examine on this document? I thought I heard
24 everybody say they hadn't seen it.

25 JUDGE MOORE: If that's an objection, it's

ki 6:3

New BU

1 sustained.

2 MR. KAUFAMN: Mr. Chairman, I believe Mr. De Uriarte
3 indicated he had seen this report and he had reviewed this
4 report.

5 JUDGE MOORE: I'm sorry. I understood him, a
6 moment ago, to say he had seen it. I hadn't understood him
7 to go any further than that.

8 Would you go ahead and lay the foundation for it?

9 BY MR. KAUFMAN:

10 Q Do you recognize this document as one from PG&E's
11 files?

12 A (Witness De Uriarte) I have seen it before.

13 Q Do you know where you saw it?

14 A Yes. I was given a copy of it.

15 Q By whom?

16 A By the senior engineer in charge of program
17 management at that time.

18 Q When was this?

19 A I have no idea; sometime in the last couple of
20 years.

21 Q Is that at PG&E?

22 A Yes, sir.

23 MR. NORTON: Counsel, I have a blank page. Does
24 everybody else have a blank page?

25 MR. KAUFMAN: Where is the blank?

ki 6:4

1 MR. NORTON: Third from the back.

2 JUDGE MOORE: That's correct, Mr. Norton.

3 MR. NORTON: I guess my problem is, I don't know
4 whether I've got -- whether you've got a complete document,
5 an incomplete document. Mine also has words circled and
6 little deletion lines on it, and stuff like that. That's why
7 I'd like some foundation.

8 MR. KAUFMAN: Let's see if we can straighten that
9 out. There are numbers marked at the top of the page. Let's
10 go to the first page. That is ZMP 0056399.

11 BY MR. KAUFMAN:

12 Q Mr. De Uriarte, do you recognize that as a PG&E
13 numbering system?

14 A (Witness De Uriarte) I believe that's a microfilming
15 identification system.

16 Q From PG&E?

17 A It could be from PG&E.

18 Q Have you seen PG&E microfilm documents before?

19 A Yes.

20 Q Do you know what the letters ZMP stand for?

21 A No, sir, I don't.

22 MR. NORTON: Counsel, perhaps I can clarify for
23 you. That number is a document production number. That means
24 the document was produced by PG&E pursuant to your request for
25 production in the bundle of some 40,000 documents that we

ki 6:5

1 produced for you. But that doesn't mean that I or any of
2 these witnesses know anything about the document. All that
3 number tells is we produced it pursuant to one of your requests
4 for production.

5 MR. KAUFMAN: This document has remained untouched
6 by the Governor. I would note that, dealing with page 6 --

7 MR. NORTON: It's not the Governor I'm worried
8 about.

9 MR. KAUFMAN: We're dealing with page 6 --

10 JUDGE MOORE: Continue, Mr. Kaufman.

11 BY MR. KAUFMAN:

12 Q Let's go to page 6. The number is at the -- at
13 the top of the page, is 0056404, is that correct?

14 A (Witness De Uriarte) Yes, sir.

15 Q If we turn to the next page which is blank, the
16 number is 0056405, is that correct?

17 A Yes.

18 Q And if you turn the page, the number is 0056406,
19 is that correct?

20 A Yes.

21 Q So that the pages are consecutively numbered, right?

22 A Yes.

23 MR. KAUFMAN: Mr. Norton, if you have a problem
24 with the authenticity of this document, we would be happy to
25 have you produce what you thought you produced to us before,

ki 6:6

1 which may be different.

2 He's apparently not questioning the authenticity
3 of this document.

4 JUDGE MOORE: Well, he hasn't yet, directly.
5 I believe he is waiting.

6 Continue, Mr. Kaufman.

7 MR. KAUFMAN: I would move that Governor's Exhibit
8 35 be admitted into evidence.

9 JUDGE MOORE: Any objection?

10 MR. HAVIAN: No objection.

11 MR CHANDLER: Yes, sir.

12 MR. NORTON: Yes, Your Honor.

13 MR. CHANDLER: Mr. Chairman, I have a little bit
14 of difficulty in that I, too, have a blank page and, albeit
15 the numbering system at the top as well as on the side
16 appear to be consecutive, there is reference in here to a
17 number of attachments, at least one I believe to an attach-
18 ment 4, attachment 6. I presume I will find other attachment
19 numbers referenced in here, although I haven't had an opportunity
20 to review this in any depth.

21 When I turn to what appears to be an attachment, I
22 find a blank page, with I think the words, "Attachment" Roman
23 numeral "III." It's hard to make out.

24 And then I find miscellaneous pages following it.
25 This appears to be an incomplete document at best,

ki 6:7

1 Mr. Chairman. I would object to it on that basis.

2 MR. NORTON: I have a much more basic objection
3 than the fact that it not only appears -- it is obviously, on
4 an its face, an incomplete document because it certainly does
5 refer to all kinds of attachments that are not attached. But
6 more importantly, these witnesses cannot testify to the
7 authenticity of this document or anything else about it.

8 No foundation has been laid.

9 MR. KAUFMAN: Mr. Chairman, Mr. De Uriarte has
10 testified that the pages that he's looking at are consecutively
11 numbered. There's no omissions in the pages that we are
12 dealing with.

13 MR. NORTON: I'll stipulate they are consecutively
14 numbered, for whatever that's worth.

15 MR. KAUFMAN: You've also indicated these documents
16 are from your document production.

17 MR. NORTON: We stipulate to that.

18 JUDGE MOORE: Mr. Kaufman, the document has not
19 been authenticated, and therefore the objection is sustained.
20 And if you would like to, at the upcoming recess, approach
21 Mr. Norton and see if you can get a stipulation of counsel to
22 somehow get it in, then I would suggest you do that. But you
23 have failed to either authenticate the document -- I would
24 point out to you, the mere fact that they produced it means
25 absolutely nothing as to your ability to authenticate it and

ki 6:8

1 get it in the record.

2 The objection is sustained. Move on.

3 MR. KAUFMAN: Mr. Chairman, may I ask the Board
4 what foundation it would require of us?

5 JUDGE MOORE: Yes, Mr. Kaufman, you may. Proper
6 foundation. It is now 10:30. We will take the mid-morning
7 recess. We will reconvene in 15 minutes and go until lunch.

8 (Recess.)

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
End 6

mgc 7-1

1 JUDGE MOORE: Come to order, please.

2 Mr. Kaufman, continue with your cross-examination
3 of this panel.

4 BY MR. KAUFMAN:

5 Q Mr. DeUriarte, you previously testified that
6 you looked at this report before.

7 A (Witness DeUriarte) I said that I had seen it.

8 Q You testified that it had been handed to you
9 by a PG&E Vice President?

10 A No, sir. I said it was handed to me by the
11 Senior Engineer in Charge of Program Management.

12 Q And who was that?

13 JUDGE MOORE: Mr. Kaufman, are you now
14 attempting to lay the foundation that you didn't lay
15 previously when I sustained Mr. Norton's objection and
16 wouldn't admit your proposed exhibit into evidence?

17 MR. KAUFMAN: Yes, I am, Mr. Chairman.

18 JUDGE MOORE: Why didn't you do this when you
19 had the opportunity to do it? And why didn't you do it
20 when you were given the opportunity?

21 MR. KAUFMAN: Mr. Chairman, I didn't understand
22 that I hadn't laid a proper foundation, and being advised
23 that I hadn't, I am attempting to rehabilitate the matter
24 in that regard.

25 JUDGE MOORE: Mr. Kaufman, I will be very

mgc 7-2

1 generous this time and permit it, but when you seek to lay
2 the foundation for a document in the future, do it at the
3 appropriate time when you are given the opportunity, so
4 we don't have to be repetitious.

5 Go ahead. See if you can lay the foundation
6 now.

7 MR. KAUFMAN: Thank you, Mr. Chairman.

8 BY MR. KAUFMAN:

9 Q Who was that individual, Mr. DeUriarte?

10 A His name was Frank Dodd.

11 Q To your knowledge, is he still at PG&E?

12 A No, sir. He is no longer with PG&E.

13 Q Who else at PG&E has seen this document, to your
14 knowledge?

15 A I'm not sure.

16 Q Have you read this document before?

17 A I don't recall reading it, no. At the time he
18 handed it to me, I recall him asking me if I had read it,
19 and I said, "No, I haven't seen it." He said, "I laid it
20 on your chair."

21 If you see my office on a normal day, I am in and
22 out about four hundred times, and I often take things that
23 are laying on my chair and throw them in the in-basket and
24 read them sometimes a week later. I don't recall ever
25 really reading this document in detail.

mgc 7-3

1 Q This was the document that was on your chair?

2 A I really don't recall that.

3 Q Are you familiar with Mr. Dodd's handwriting?

4 A Yes, .I am.

5 Q Let me direct your attention to the May --
6 June 1982 written across the top of the first page. Does
7 that look to you to be Mr. Dodd's handwriting?

8 A That does not look like his handwriting.

9 Q Does this look like your handwriting?]

10 A No, sir. I print.

11 Q If an independent audit were conducted of the
12 PG&E quality assurance organization, who would participate
13 in an exit interview with that outside auditor?

14 A Probably myself -- well, probably the Manager
15 and all of the senior people.

16 Q In the May-June 1982 timeframe, who would those
17 individuals have been?

18 A That would have been myself, Frank Dodd,
19 Warren Raymond, the QA Manager, possibly Dick Twiddy,
20 who was the on-site QA supervisor at that time would have
21 sat in such an exit interview.

22 Q Did you, in fact, sit in on an exit interview
23 with Project Assistance Corporation in 1982?

24 A No, sir. This was not an audit.

25 Q Did you attend any meetings in 1982 with

mgc 7-4

1 Project Assistance Corporation?

2 A No, sir.

3 JUDGE MOORE: Mr. Kaufman, I would suggest you
4 move on.

5 BY MR. KAUFMAN

6 Q Mr. DeUriarte, to your knowledge, has anyone
7 identified in the 1982 period that PG&E's quality assurance
8 program failed to adequately address the requirements of
9 ANSI Standard -- ANSI standards and regulatory guides to
10 which PG&E was committed?

11 JUDGE MOORE: Excuse me. With the interruption
12 of the airplane, I don't think the witness probably heard
13 that question. I had some difficulty. Would you please
14 repeat it?

15 BY MR. KAUFMAN:

16 Q Let me direct your attention to Page 3 under
17 Roman Numeral III, Arabic 1.

18 Would you please read the paragraph?

19 MR. NORTON: Excuse me, Your Honor. You can't
20 get a document into evidence by asking the witness to
21 read it when the Court has ruled that it is not admissible
22 in evidence.

23 JUDGE MOORE: Sustained.

24 MR. KAUFMAN: I want to use it as part of my
25 question. I can read it and ask him -- I'll do it.

mgc 7-5

1 JUDGE MOORE: You are limited.

2 BY MR. KAUFMAN:

3 Q Let me read your statement to you, Mr. DeUriarte:

4 "Forty-six instances were identified in which
5 the Quality Assurance Manual failed to adequately address
6 the requirements of an ANSI standard and/or regulatory
7 guide to which PG&E is committed. In thirty-six of these
8 instances, the requirements did not appear to have been
9 addressed at all. In the remaining ten instances, it appears
10 there was an effort to address the requirement, but it had
11 been done in such a manner that compliance with the require-
12 ment could not be assured."

13 Have you ever heard that criticism made of the
14 PG&E quality assurance program for the period 1982?

15 A (Witness DeUriarte) No, sir.

16 MR. NORTON: Excuse me, Your Honor. I object.
17 It's multiple.

18 JUDGE MOORE: It is a multiple question. Make
19 it uncompound.

20 BY MR. KAUFMAN:

21 Q "Forty-six instances were identified in which
22 the Quality Assurance Manual failed to adequately address
23 the requirements of an ANSI standard and/or regulatory
24 guide to which PG&E is committed."

25 Have you heard any criticism of the PG&E

mgc 7-6

1 quality assurance program for 1982?

2 A (Witness DeUriarte) No, sir.

3 Q Mr. Skidmore, the same question?

4 A (Witness Skidmore) No, sir.

5 Q Mr. Jacobson?

6 A (Witness Jacobson) No, I haven't.

7 Q Mr. Dick?

8 A (Witness Dick) No, sir.

9 Q Could you read the remaining portion of that
10 paragraph to yourself, Mr. DeUriarte?

11 A (Witness DeUriarte) Okay.

12 Q Have you ever seen any of those criticisms made,
13 or have you ever heard any of those criticisms made of
14 PG&E's quality assurance program for 1982?

15 MR. NORTON: Object. Multiple question.

16 MR. KAUFMAN: I'm just asking for "any."

17 JUDGE MOORE: All right. If you don't specify,
18 it leaves the record vague. That's the whole point of the
19 multiple question objection, that one reading a transcript
20 can't then determine, because a literal truth can be given
21 which is misleading, so break it apart and ask him part by
22 part.

23 BY MR. KAUFMAN:

24 Q For the second sentence --

25 MR. NORTON: Excuse me, Your Honor. We do have

mgc 7-7

1 a problem. I think this document is not in evidence, and
2 I think the examiner has to ask the question, or the
3 reader of the record doesn't know what the sentence says.

4 JUDGE MOORE: It is marked as an exhibit, and
5 it stays marked as an exhibit, Mr. Norton.

6 MR. NORTON: But the reader of the transcript
7 is going to have a heck of a time finding it.

8 JUDGE MOORE: We will leave that to the reader
9 of the transcript, Mr. Norton, since you are looking at him.

10 (Laughter.)

11 MR. CHANDLER: I do have yet an additional
12 problem. In response to the prior question asked to each
13 of the individuals on the panel, with respect to the first
14 sentence in Arabic No. 1, each individual denied any
15 knowledge of anything in that regard.

16 I think I have a foundational question -- problem,
17 then, with respect to each of the following sentences, which
18 Mr. Kaufman has now launched into.

19 JUDGE MOORE: You are probably right, Mr. Chandler,
20 but let's let him probe it, because I frankly don't remember
21 the prior question, and I don't want to take the time to
22 have it read back.

23 Continue, Mr. Kaufman.

24 BY MR. KAUFMAN:

25 Q For the first sentence -- second sentence in that

mgc 7-8

1 paragraph, Mr. DeUriarte, have you ever heard that criticism
2 made of the PG&E quality assurance program?

3 A (Witness DeUriarte) No, sir, I have not.

4 Q Would you read the third sentence to yourself?

5 A Yes, sir.

6 Q Have you heard that criticism made of the PG&E
7 quality assurance program?

8 A No, sir, I have not.

9 Q Is it your testimony that none of these criticisms
10 of the PG&E quality assurance program in the 1982 timeframe
11 are valid?

12 A In my opinion, they are not valid.

13 Q Turning to Page 4 --

14 MR. NORTON: Excuse me, Your Honor. I am going
15 to object to the continued use of this document. I don't
16 know who wrote it. It says "Review of the PG&E QA Manual
17 for Nuclear Plants, Summary Report." I don't know if the
18 secretary reviewed a report and wrote this summary. I
19 don't know if the bottom man on the totem pole did it.

20 JUDGE MOORE: He has adequately -- I am giving
21 him about two more questions. He is unable to establish
22 anything about this document with these witnesses, and he
23 is coming very quickly to a conclusion of this line of
24 questioning using this document.

25 MR. KAUFMAN: Mr. Chairman --

mgc 7-9

1 JUDGE MOORE: Go ahead and ask the next two, but
2 be quick about it.

3 MR. KAUFMAN: At this point, I am asking the
4 witness questions about -- I'm making statements about the
5 quality assurance program and asking him whether they are --

6 JUDGE MOORE: I understand what you are doing.
7 Be quick about it, Mr. Kaufman.

8 BY MR. KAUFMAN:

9 Q Paragraph 2 on Page 4 -- Arabic 2 on Page 4,
10 could you read that to yourself and tell me --

11 JUDGE MOORE: Mr. Kaufman, you already asked
12 him about 2.

13 MR. KAUFMAN: No, I didn't. We are on Page 4,
14 Mr. Chairman.

15 JUDGE MOORE: I apologize.

16 JUDGE JOHNSON: Mr. Kaufman, you just went through
17 2 through 5 with him on Page 4.

18 MR. KAUFMAN: No, I didn't, Dr. Johnson.

19 JUDGE MOORE: I'm sorry. I think I lost track.
20 I'm sorry. But go ahead. But be brief. Let's be on with
21 this. We are wasting an awful lot of time.

22 MR. KAUFMAN: Dr. Johnson, --

23 JUDGE MOORE: Proceed, Mr. Kaufman.

24 MR. KAUFMAN: I asked the question of
25 Mr. DeUriarte whether he agrees with the conclusion

mgc 7-10 1 expressed in that paragraph.

2 WITNESS DE URIARTE: No, I don't agree with that
3 paragraph.

4 BY MR. KAUFMAN:

5 Q Paragraph 3, do you agree with the conclusion?

6 MR. NORTON: Excuse me, Your Honor. That's not
7 a conclusion. That's a statement of fact by some unknown
8 person, thing or whatever.

9 MR. KAUFMAN: If it will help, Mr. Norton, I
10 will make that a statement.

11 JUDGE MOORE: That's correct. Ask the question
12 in that form.

13 BY MR. KAUFMAN:

14 Q Do you agree with the statement stated in
15 Paragraph 3 on Page 4, Mr. DeUriarte?

16 A (Witness DeUriarte) Okay.

17 JUDGE JOHNSON: I'm not sure we understood
18 your answer, Mr. DeUriarte.

19 WITNESS DE URIARTE: What was the question.

20 JUDGE MOORE: I will ask it, because it will be
21 quicker.

22 He has asked you whether you agree with
23 Statement No. 3 on Page 4 of the document in front of you

24 WITNESS DE URIARTE: No, sir.
25

mgc 7-11 1

BY MR. KAUFMAN:

2 Q The statement in Paragraph 5?

3 MR. NORTON: Which one?

4 MR. KAUFMAN: I'm sorry, Paragraph 4 on Page 4.

5 MR. NORTON: What is the question?

6 MR. KAUFMAN: Whether he agrees with the
7 statement expressed there.

8 WITNESS DE URIARTE: No, sir.

9 BY MR. KAUFMAN:

10 Q Would you turn to Page 5, please. Look to the
11 first full paragraph on that page, beginning with the word --
12 the two words, "first problem."

13 Could you read that to yourself, please?

14 A (Witness DeUriarte) All right.

15 Q Have you ever heard that criticism, the criticism
16 expressed in that paragraph, made about the PG&E quality
17 assurance program in 1982?

18 A Yes, I have.

19 Q And who made that criticism?

20 A I believe something very similar to this statement
21 appeared in the Reedy Phase I Report.22 Q And what did Reedy do in response to identifying
23 that -- making that criticism?24 MR. NORTON: Excuse me, Your Honor. May I have
25 a repeat on that question? What did Reedy do?

mgc 7-12 1

JUDGE MOORE: Yes. The question, I don't think
2 was phrased so that it was understandable.

3 MR. KAUFMAN: Okay. I agree, Mr. Chairman.
4 It was awkward, if not ambiguous.

5 BY MR. KAUFMAN:

6 Q Could you read that paragraph aloud, please?

7 MR. NORTON: Same objection, Your Honor.

8 JUDGE MOORE: Sustained.

9 BY MR. KAUFMAN:

10 Q Having read that paragraph to yourself, you
11 testified that this problem was identified by Reedy.

12 Could you state what -- how Reedy expressed
13 the criticism?

14 A (Witness DeUriarte) I'm sorry, I can't. I don't
15 recall the Reedy wording.

ki 8:1

1 Q Would you turn to page 6, please, second paragraph
2 on that page, beginning with the words "second problem."

3 Could you read that paragraph to yourself, please?

4 A All right.

5 Q Would you tell the Board whether you ever heard
6 that criticism made about the PG&E quality assurance program
7 before?

8 A Yes, I have.

9 Q Was that with respect to the program as it existed
10 in 1982?

11 A Yes, sir.

12 Q And who made that criticism?

13 A I can't identify a person who made that criticism.
14 This is a criticism I have heard of our program several times.

15 Q From whom?

16 A I can't identify an individual.

17 Q Was that within the PG&E organization itself?

18 A Yes, sir.

19 Q Was it external -- from individuals or organiza-
20 tions external to the PG&E organization?

21 A I believe Mr. Reedy also touched on this subject.

22 Q When Reedy touched on the subject, could you tell
23 the Board how he phrased that criticism?

24 A I'm sorry; I can't remember the wording of his
25 report.

kj 8:2

1 Q Do you agree with that criticism for the 1982 period?

2 A Well, there's really two parts to this statement.

3 Q Which part of it -- well, I think at this point,
4 could you tell us which part you have read that you would
5 agree with?

6 A According to Appendix B, quality assurance depart-
7 ment is supposed to report to a level of management sufficiently
8 independent to keep it separate from any operating or functional
9 responsibility. Since the nuclear power generation department
10 has been formed, we have reported to the Vice President of
11 Nuclear Power Generation, and that individual is also responsi-
12 ble for the operation of Diablo Canyon Power Plant.

13 And so, on the face of that requirement, many
14 reviewers of our program have made the comment that there is
15 a conflict of interest for that individual to be over both
16 the quality assurance program and the operation of the
17 facility.

18 In fact, when you asked me do I agree with the
19 statement, in point of fact, in my experience in the depart-
20 ment, we have had more effective response from management from
21 that position than we had before. And I believe that's the
22 reason why the Company did not ever change that organization.

23 Q In the PG&E quality assurance structure, there is
24 an overall corporate organization which supervises quality
25 assurance programs of the various individual disciplines

ki 8:3

1 within PG&E; is that correct?

2 A I'm sorry; could you restate that?

3 Q In a PG&E quality assurance structure, there is
4 first a corporate quality assurance organization which is
5 an umbrella organization for all the quality assurance
6 activities in design, for example, that are undertaken by the
7 various subparts of the Pacific Gas & Electric Company
8 organization; is that correct?

9 A Well, there is one quality assurance department.

10 Q There are, though, various sub-departments within
11 Pacific Gas & Electric Company; is that correct?

12 A Not that are part of the quality assurance depart-
13 ment. No.

14 Q Well, does engineering, for example, have a quality
15 assurance function?

16 A No, they do not. They have a quality control
17 organization.

18 Q Well, engineering quality control has a quality
19 assurance function; does it not?

20 A It implements parts of the quality assurance
21 program, yes, in its daily activities.

22 Q Does it have its own set of quality assurance
23 program procedures?

24 A Engineering quality control department operates
25 under a manual called "The Engineering Quality Control Manual"

ki 8:4

1 or "The Engineering Department Manual." I'm sorry.

2 Q Is this manual developed independently of the
3 overall corporate quality assurance department?

4 A Well, I'm not sure what you mean by "independently."
5 It was written in the 1977-1978 time frame. The organization
6 or the committee that prepared drafts that were reviewed by
7 management consisted of a discipline member from each
8 engineering discipline, plus a quality assurance member.

9 We were, I guess you could say, a party to the
10 writing of that manual.

11 Q Does corporate quality assurance have the right
12 to review and overrule procedures that engineering quality
13 control has adopted?

14 A Yes, sir.

15 Q Is engineering quality control required to comply
16 with the corporate quality assurance organization's recommended
17 changes?

18 A Yes, sir.

19 Q And when did the corporate quality assurance
20 organization first have that authority?

21 A We have always had that authority.

22 Q Mr. De Uriarte, I have before me Governor's Exhibit
23 36, which I will have handed to you.

24 (Document distributed to Board, parties, and
25 witnesses.)

ki 8:5

1 BY MR. KAUFMAN:

2 Q Could you identify that document for me, please?

3 JUDGE MOORE: Governor's Exhibit No. 36 is marked
4 for identification.

5 (The document referred to was
6 marked Governor's Exhibit
7 No. 36 for identification.)

8 WITNESS DE URIARTE: How do you want me to identify
9 it? Do you want me to read the title?

10 MR. NORTON: Excuse me. I think that question
11 was to the Board. I don't think it was to a witness.

12 JUDGE MOORE: I'm sorry, Mr. Norton. There was an
13 extraneous noise from the back.

14 MR. KAUFMAN: I had the document handed to
15 Mr. De Uriarte, and I've asked him to please identify it.

16 WITNESS DE URIARTE: How would you like me to
17 identify it?

18 BY MR. KAUFMAN:

19 Q What is it?

20 A (Witness De Uriarte) I've never seen it before.

21 Q Has any member of the panel seen this document
22 before?

23 A (Witness Skidmore) No.

24 A (Witness Jacobson) I have not.

25 A (Witness Dick) May I see it, please? No, sir,

XXXX

ki 8:6

1 Mr. Kaufman, this is the first time I've seen it.

2 JUDGE MOORE: Will all counsel approach the
3 bench?

4 (Bench conference.)

5 JUDGE MOORE: Mr. Kaufman, you may proceed.

6 BY MR. KAUFMAN:

7 Q Mr. De Uriarte, have you ever heard the criticism
8 made that the procedures that PG&E was using in -- that
9 quality assurance was using in 1982 were inadequate with
10 respect to reporting nonconformances and discrepancies insofar
11 as the reporting documents were at such low level that it was
12 difficult for the auditing -- PG&E auditing organization to
13 uncover major trends and deficiencies and nonconformances?

14 A (Witness De Uriarte) No, sir; I have never heard
15 that, and I disagree with that.

16 Q Have you ever heard that the criticism expressed of
17 the PG&E quality assurance organization, that the training
18 of personnel was weak or inadequate in the 1982 time frame?

19 A No, sir; I have not heard that.

20 Q And you do not believe that to be the case; is
21 that right?

22 A No, sir.

23 Q With respect to criticisms of the engineering
24 department manual, have you ever heard the criticism made that
25 interface controls between various departments within PG&E

ki 8:7

1 were inadequate?

2 A Internal interface controls?

3 Q Yes.

4 A No, sir; I have not.

5 Q Did you ever hear the criticism that they were not
6 well defined?

7 A What time frame?

8 Q 1982.

9 A No, sir; I have not.

10 Q Did you ever hear a criticism made of the engineering
11 department manual in the 1982 time frame, that the training
12 of personnel with respect to quality assurance requirements
13 was inadequate?

14 A The engineering manual?

15 Q Right.

16 A No, sir; I have not.

17 Q Did you ever hear, again with respect to the
18 engineering manual in 1982 time frame, that design control
19 procedures were inadequate?

20 A No, sir.

21 Q Again, with respect to the engineering manual, did
22 you ever hear a criticism that the document control and
23 records procedures in that manual were inadequate?

24 A In the engineering manual?

25 Q Right. 1982.

ki 8:8

1 A I don't recall ever hearing that.

2 Q Thank you.

3 Do you disagree with that?

4 A Yes, I do.

5 Q At the risk of having a compound question, do you
6 disagree with any -- with all the statements that I asked
7 you to address?

8 MR. NORTON: Excuse me, Your Honor. He's been
9 cross for 2-1/2 hours. That's impossible to answer.

10 BY MR. KAUFMAN:

11 Q Since the bench conference, with respect to either
12 the corporate organization criticisms or the engineering
13 manual criticisms. I just want to save some time. I don't
14 want to go back one by one.

15 JUDGE MOORE: I understand that. Can the witness
16 answer the question?

17 WITNESS DE URIARTE: Yes, sir. I disagree with
18 all of those.

19 BY MR. KAUFMAN:

20 Q Thank you.

21 Mr. De Uriarte, interface control has been a
22 deficiency which has been a problem in the PG&E quality assurance
23 organization in the past, has it not?

24 A (Witness De Uriarte) As we stated before, interface
25 control between PG&E engineering departments and design

ki 8:9

1 consultants.

2 Q I'm sorry. I'm asking this question of the wrong
3 individual.

4 I would like to go to Mr. Jacobson. Has the
5 Diablo Canyon Project developed procedures for design control?

6 A (Witness Jacobson) Yes, we have.

7 Q As part of the effort to develop a procedure to
8 assure proper interface control, has the Diablo Canyon Project
9 developed several specific procedures?

10 A What was the subject area? Design control?

11 Q Right. Interface.

12 A Interface? Yes, we have developed at least one
13 that I can recall.

14
15
16
17
18
19
20
21
22
23
24
25
nd 8

mgc 9-1

1 Q I have before me a document marked Governor's
2 Exhibit No. 37. I am going to hand that to you.

3 (Document distributed to Board, parties and
4 witnesses.)

5 Mr. Jacobson, I would like you to look at the
6 signatures at the top of the page and ask you if your
7 signature appears on that page?

8 A (Witness Jacobson) Yes, it does.

9 Q That is your signature?

10 A Yes.

11 Q Can you identify this document?

12 A That is Project Engineer's Instruction No. 5,
13 Revision 0.

14 Q Let me ask you to look at Paragraph 4.0,
15 entitled "Procedure." Could you read for us -- for the Board
16 the Paragraph labeled 4.1.1, please?

17 A "The internal design interfaces and responsibili-
18 ties are documented in Attachment A."

19 Q Could you tell the Board what the effective date
20 of this procedure is?

21 A August 10, 1982.

22 Q Could you turn to Attachment A, please?

23 MR. CHANDLER: Mr. Kaufman, the copy I have does
24 not appear to have an Attachment A. Is there a different
25 copy?

mgc 9-2

BY MR. KAUFMAN:

Q Mr. Jacobson, you are familiar with this document, are you not?

A (Witness Jacobson) Yes, I am.

Q Do you see Attachment A to this document?

A No, I don't see anything labeled Attachment A. If I could explain, Attachment A was added in later revisions. It is a matrix presentation of design interfaces and responsibilities. This is a methodology that Bechtel has used to summarize which groups are responsible for performing work on the project. It is, if you will, an after-the-fact summary of that information in the PEI No. 5. We require that written work requests be prepared as the interface is identified, and they define the interface, the responsible people, and those requirements.

MR. CHANDLER: Mr. Chairman, I am going to object to any further use of this document, unless the parties are provided with a full and complete copy of the exhibit to which he is referring.

JUDGE MOORE: One moment, Mr. Chandler.

Mr. Kaufman, I am a bit confused. The witness, when you spoke of Attachment A, gave you a full -- what appeared to be a full recitation of what Attachment A was.

The document that you handed me as Governor's Exhibit No. 37 is noted at the top that it's a two-page

mgc 9-3

1 document, and I have Revision No. 0, but there are three
2 pages to the document, the third page having the title
3 "Design Responsibilities."

4 MR. KAUFMAN: That's correct.

5 JUDGE MOORE: That does not appear to be the
6 same document to which this witness just referred.

7 MR. KAUFMAN: The point I was getting to was to
8 ask him whether this last page is the Attachment A which
9 has the design matrix.

10 JUDGE MOORE: Fine. With that understanding,
11 I will overrule Mr. Chandler's objection.

12 Go ahead.

13 BY MR. KAUFMAN:

14 Q Mr. Jacobson, would you turn to the last page,
15 please?

16 A (Witness Jacobson) Okay.

17 Q Does that have the design matrix on it of
18 Attachment A?

19 A It has a matrix on it which is incomplete.
20 As I stated the matrix was developed as the interfaces
21 were defined. And it was put in a subsequent revision of
22 the procedure.

23 Q This is the way the document was distributed in
24 August of 1982; is that not correct?

25 A I don't recall for sure.

mgc 9-4

1 Q Mr. Dick, do you have any other knowledge?

2 A (Witness Dick) No, I don't have any specific
3 knowledge of that, except I would point out to you that that
4 blank matrix that you were just discussing has labeled -in
5 its several rows as examples, and that is clearly -- that was
6 clearly the initial issue of what was subsequent issues in
7 the revisions, because those interfaces are evolved as the
8 project evolves.

9 Q Well, the evolution of that process, the status
10 of the evolution of that process, then, as of August 10, 1982
11 was that none of this had been worked out at that time; is
12 that correct?

13 A No, I can't make that as a statement. I'm just
14 making an observation of a specific piece of paper.

15 MR. NORTON: Excuse me, Your Honor. This is a
16 procedure for Unit 2, is what I think it says on it --
17 okay, Project Engineer, Unit 2, signed it.

18 What I don't understand --

19 MR. KAUFMAN: There is Unit 1 right at the top
20 of the page.

21 JUDGE MOORE: However, it is signed by both
22 the Project Engineer for Unit 1 and Unit 2, as well as
23 by Mr. Jacobson.

24 MR. NORTON: I guess my problem is, these
25 people -- these documents were produced in May and June

mgc 9-5

1 and why we were doing deposition-type discovery at this
2 hearing in November puzzles me.

3 JUDGE MOORE: Your puzzlement is noted.

4 Mr. Kaufman?

5 BY MR. KAUFMAN:

6 Q I have before me Governor's Exhibit No. 38 which
7 I am going to have distributed to you.

8 MR. CHANDLER: Mr. Chairman, while that process
9 is ongoing, was this ever noted for the record as being
10 identified, the earlier one, as Governor's Exhibit 37?

11 JUDGE MOORE: I believe you are correct,
12 Mr. Chandler. Thank you for keeping me up to date.
13 Governor's Exhibit No. 37 is marked for Identification.

14 (The document referred to
15 was marked Governor's Exhibit
16 No. 37 for Identification).

17 JUDGE MOORE: And Governor's Exhibit No. 38 is
18 marked for Identification.

19 (The document referred to
20 was marked Governor's Exhibit
21 No. 38 for Identification.)

22 (Document distributed to Board, parties and
23 witnesses.)

24 BY MR. KAUFMAN:

25 Q Mr. Jacobson, looking onto the cover page, the

mgc 9-6

1 first page of that document, is that your signature at the
2 top of the page?

3 A (Witness Jacobson) Yes, it is.

4 Q Could you identify this document for me, please?

5 A This is Project Engineer's Instruction No. 5,
6 Revision 1.

7 Q What was the effective date of that instruction?

8 A The effective date shown is October 29, 1982;
9 however, it was not approved until November 16th, so it
10 would not have gone into effect until after that date.

11 Q Okay. Can I ask you to turn to Page 2 of
12 that document? Could you read Paragraph 4.1.1, please?

13 A "The internal design interfaces and responsibilities
14 are documented in Attachment A."

15 Q Would you turn to the last page of that document?

16 A Yes.

17 Q Is that page identified as Attachment A?

18 A Yes, it is.

19 Q Is that the attachment that went with this
20 revision?

21 A I'm not sure. I would have to go back and look
22 at that.

23 Q Mr. Dick, are you aware whether this attachment
24 is the matrix which went -- was the attachment that went
25 with this instruction?

mgc 9-7

1 A (Witness Dick) No, sir, I am not. I would
2 have to make the same comment on this as I did on the
3 previous document.

4 Q Would I be correct in concluding, then, that the
5 design responsibilities for design interface had not been
6 worked out as of November 1982?

7 A No, I don't think you would be correct in
8 concluding that.

9 Q Why not?

10 A I don't believe there is sufficient information
11 here to say.

12 Q But this was the instruction -- this instruction
13 was sent out in November 1982, was it not?

14 A (Witness Jacobson) Yes, it was. The way this
15 was done was, as off project entities were identified to
16 perform work on the project, the scope of their work, the
17 criteria, and the quality assurance requirements were
18 identified in a written Work Request, and as those were
19 accumulated, we later incorporated that information into
20 the matrix, which was Attachment A to subsequent revisions.

21 Q I have before me Governor's Exhibit 39, which
22 I will have distributed to you.

23 (Document distributed to Board, parties and
24 witnesses.)

25 JUDGE MOORE: Governor's Exhibit No. 39 is

mgc 9-8 1 marked for Identification.

2 (The document referred to
3 was marked Governor's Exhibit
4 No. 39 for Identification.)

5 BY MR. KAUFMAN:

6 Q Mr. Jacobson, is that your signature at the top
7 of the first page?

8 A (Witness Jacobson) Yes, it is.

9 Q Would you identify the document for me, please?

10 A This is Project Engineer's Instruction No. 5,
11 Revision 2.

12 Q What was the effective date of this document?

13 A March 11, 1983.

14 Q I would have you turn to Page 2 of that document
15 and read Paragraphs 4.1 -- read Paragraph 4.1.1, please?

16 A "The internal design interfaces and responsibilities
17 for Unit 1 are documented in Attachment A."

18 Q Would you please turn to the next page?

19 A Okay.

20 Q Is that Attachment A?

21 A Yes, it is.

22 Q Does that indicate a matrix of the final decision
23 as to design responsibilities for this interface instruction?

24 A I believe these were the ones for Unit 1.

25 Q Isn't it true that this was the first time a

mgc 9-9

1 complete matrix indicating the design responsibilities
2 were distributed with Instruction No. 5?

3 A Yes. This was the summary of the interfaces
4 that had been previously defined in the Work Requests that
5 we had issued.

6 Q Can I have you please turn back to Page 2 of
7 the document?

8 A Okay.

9 Q Could you read Paragraph 4.1.2, please?

10 A "The internal design interfaces and responsibilities
11 for Unit 2 are documented in Attachment B (later)."

12 Q So it is true at this particular time -- point --
13 at this point in time, you did not have a design interface
14 matrix for Unit 2?

15 A That's correct.

16 MR. KAUFMAN: I move Governor's Exhibits Nos.
17 37, 38 and 39 be admitting into evidence.

18 MR. NORTON: No objection.

19 MR. CHANDLER: No objection.

20 MR. HAVIAN: No objection.

21 JUDGE MOORE: Governor's Exhibits No., 37, 38 and
22 39 are admitted.

23 (The documents previously
24 marked Governor's Exhibit
25 Nos. 37, 38 and 39 for
Identification were received
in evidence.)

ki 10:1

1 BY MR. KAUTMAN:

2 Q I believe it is you, Mr. Jacobson, who testified
3 at page 23 of your testimony, that Bechtel San Francisco
4 Power Division did a management audit of the DCP quality
5 assurance program. Is that correct?

6 A (Witness Jacobson) Yes.

7 Q What period of time did that audit cover?

8 A That audit was performed in December of 1982, and
9 it covered the time period since the project QA program
10 started, which was August 1982.

11 Q I have before me Governor's Exhibit No. 33, which
12 I will have handed to you.

13 (Document distributed to Board, parties, and
14 witnesses.)

15 JUDGE MOORE: Mr. Kaufman, this is No. 33, and I
16 just admitted 37, 38, and 39. Is this that gap problem we
17 ran into?

18 MR. KAUFMAN: That's correct.

19 JUDGE MOORE: And are these filling in that gap?

20 MR. KAUFMAN: That's correct; this one is.

21 JUDGE MOORE: All right. Governor's Exhibit
22 No. 33 is marked for identification.

23 (The document referred to was
24 marked Governor's Exhibit
25 No. 33 for identification.)

ki 10:2

1 BY MR. KAUFMAN:

2 Q Could you identify this document for me, please?

3 A (Witness Jacobson) This is a report of the QA
4 management report of the Diablo Canyon engineering. It's --
5 I don't see the audit number.

6 Q In the top righthand corner, there is a small
7 print file number, and under interoffice memorandum, it's
8 OE-317. Is that the audit number?

9 A No. The audit number is on the third page. It's
10 QA management audit report No. 317.

11 Q Okay. Is this the document referred to in your
12 testimony on page 23?

13 A Yes, it is.

14 Q Have you read this document?

15 A Yes, I have.

16 MR. KAUFMAN: I would move that the Governor's
17 Exhibit 33 be admitted into evidence.

18 MR. NORTON: No objection.

19 MR. CHANDLER: No objection.

20 MR. HAVIAN: No objection.

21 JUDGE MOORE: Governor's Exhibit No. 33 is admitted.

22 (The document previously marked
23 Governor's Exhibit No. 33 for
24 identification was received in
25 evidence.)

ki 10:3

1 BY MR. KAUFMAN:

2 Q At pages 1 and 2 of the audit, the audit findings
3 are summarized, are they not?

4 A (Witness Jacobson) Is this the audit finding
5 action schedule? Is that what you're looking at?

6 Q The first page, third paragraph, which reads, "The
7 findings for your action are summarized as follows," and
8 continuing to the end.

9 A Okay. I'm there.

10 Q Do you agree with these findings?

11 A I don't recall our answers to them. But I think
12 that we did agree with all these. Yes.

13 Q Do you agree with the report's conclusion that
14 an effective quality assurance program was in effect from
15 August 20, 1982 to December 28, 1982?

16 A Yes, I do.

17 Q Directing your attention to, again, the third
18 paragraph, which begins, "The findings for your action are
19 summarized as follows," the first -- I guess we'd call it
20 a paragraph, with a hyphen in front of it -- could you read
21 that for me, please?

22 A Three civil calculations out of a sample of 11
23 were not listed in the civil calculation index.

24 Q Could you please tell me why civil calculations
25 are required to be listed in a civil calculation index?

ki 10:4

1 A The main reason is to provide an organization to
2 the process, so that the number of calculations that have
3 been generated are identified. It also shows their status,
4 as to whether they're preliminary calculations or final
5 calculations.

6 Q Is that an important procedure?

7 A Well, it's part of the quality assurance program.
8 I think it's important in terms of making sure that the process
9 is being carried out properly.

10 Q The audit report indicates that three of those
11 calculations, out of a sample of 11, were not listed. Is
12 it your opinion that such a result indicates that this pro-
13 cedure was being effectively implemented?

14 A We had previously documented this on a project
15 audit report. So we were in the process, at that time, of
16 developing calculation indexes for all of the designs. This
17 was something we noted when the project was formed that should
18 be done, and we went ahead and did that.

19 Q My question was whether such a sample result
20 indicates that this procedure was being effectively implemented.
21 Could you answer that question, please?

22 A (Witness Dick) May I give Mr. Jacobson a moment
23 here? I would like to point out the nature of what you're
24 asking him about is an audit report to which a rather -- to
25 which a comprehensive response has been made in writing. In

ki 10:5

1 other words, you have only got half of the story here. You've
2 got the findings, but you don't have the response by the
3 project to these findings.

4 To ask Mr. Jacobson to search his memory on those
5 is quite a chore.

6 Q When you have a procedure that is established, you
7 expect that procedure to be implemented, do you not?

8 A (Witness Jacobson) Yes, we do.

9 Q And that procedure is established for a specific
10 reason, is it not?

11 A Yes.

12 Q And then the procedure isn't followed in the sample
13 nearly 30 percent of the time. And my question to you is,
14 does that indicate that the procedure is being effectively
15 implemented?

16 A Well, it indicates that in that one area of the
17 procedure, that there is some action required. I would
18 certainly agree with that.

19 Q Is that procedure being effectively implemented
20 with that kind of sample result?

21 A You mean at the time frame of this audit?

22 Q Right.

23 A For that particular attribute, no. I would say
24 that means that some action would be required.

25 Q So the answer is that that sample indicates that

ki 10:6

1 the procedure was not being effectively implemented. Is that
2 correct?

3 A No. The procedure on preparation of calculations
4 includes many things, this being one of them. So my
5 opinion is that the overall procedure was being effectively
6 implemented, but some actions were required here.

7 Q Let's go to the next paragraph. Could you read
8 that for me, please?

9 A "Five preliminary piping stress calculations out
10 of a sample of nine did not indicate preliminary status on
11 the cover sheets, as required."

12 Q What is the purpose of that requirement?

13 A I think the purpose of the requirement is to
14 identify the calculation as to its status; whether it includes
15 preliminary information or not.

16 Q Is that important?

17 A It really depends on what the calculation is being
18 used for. It's important that you keep track of which ones
19 are preliminary and which ones are not.

20 A (Witness Dick) Let me add something to that,
21 Mr. Kaufman. What Mr. Jacobson said is certainly correct. It
22 is to indicate the status.

23 There are other means of indicating the status or
24 segregating preliminary from complete or different types of
25 status. And, for example, we segregate them according to

ki 10:7

1 different binders. In many cases, you may find that the
2 calculations are just work in progress. It's difficult to
3 say, on the basis of a short summary statement here, that
4 there was an inadequate implementation of the procedure. You
5 have to get the complete report.

6 Q Well, Mr. Dick, could you tell me if there is
7 anything in the body of this audit report that would render
8 this conclusion inadequate or incomplete?

9 A Without examining the report in some detail, I
10 couldn't say so.

11 MR. NORTON: May I ask a clarification on which
12 conclusion we're talking about -- Mr. Kaufman's or the
13 report's statement of fact?

14 MR. KAUFMAN: The report's conclusion. "Five
15 preliminary pipe stress calculations out of a sample of nine
16 did not indicate preliminary status on the cover sheets, as
17 required."

18 BY MR. KAUFMAN:

19 Q Is there anything in the body of this management
20 report you can point to, Mr. Dick, which would indicate that
21 that is not an accurate statement as to the status of the
22 implementation of that procedure?

23 A (Witness Dick) You want me to examine the report
24 now?

25 Q I'm asking if you know anything in the report --

ki 10:8

1 JUDGE MOORE: He previously answered that he would
2 have to examine the report.

3 MR. KAUFMAN: All right.

4 BY MR. KAUFMAN:

5 Q Mr. Jacobson, does this finding indicate to you
6 that this procedure is not being -- was not being effectively
7 implemented in that time frame?

8 A (Witness Jacobson) Well, this finding is dealing
9 with a procedural requirement to mark the status of the
10 calculation on the cover sheet. And that is one step in the
11 procedure.

12 I don't recall -- it may well be -- that it's
13 very evident that the calculations are preliminary in the
14 body of them. So all I can really say is that this one
15 element of the procedure was not being carried out in the
16 sample that they looked at.

17 Q Well, is it your conclusion that the procedure was
18 or was not being effectively implemented -- the basis of
19 this finding?

20 A Well, I can't really draw that conclusion just
21 from this finding, because, as I said, there are many elements
22 in the procedure for preparation and control of calculations.
23 And I don't think the ones here were indicative of that pro-
24 cedure not being effectively implemented.

25 Q What is your answer based on?

ki 10:9

1 A My answer is based on the audit report and my
2 attendance at the exit interview, and response to the auditors
3 at that time.

4 Q Can you point to a portion of the audit report
5 which indicates -- would support what I take it is your
6 conclusion that this may not be an accurate summary of the
7 manner in which this procedure is being implemented?

8 MR. NORTON: Excuse me, Your Honor. That misstates
9 the evidence. He didn't say that.

10 MR. KAUFMAN: If he didn't say it, the witness can
11 tell me.

12 JUDGE MOORE: Restate the question. I'm afraid
13 that I missed it as stated.

14 BY MR. KAUFMAN:

15 Q My understanding of your previous testimony was
16 that you could not answer my question as to whether this
17 sentence would give you any indication as to whether this
18 particular procedure was being effectively implemented; that
19 there was something else in the audit report which would help
20 you reach that conclusion.

21 And my question to you was whether you can point
22 to the portion of the audit report, the body of the audit
23 report, which would enable you to give me an answer to my
24 question.
25

figc 11-1 1

A (Witness Jacobson) Well, the only thing in the
2 report that I can go on is the conclusion in the report,
3 coupled with the amount of information that they looked
4 at.

5 You are asking me about the effective implementa-
6 tion of specific pieces of the calculation procedure, and
7 I would agree, on these two items that they have identified,
8 that we needed to take further action.

9 But I don't agree that the procedure for
10 preparation of control calculations was not effectively implemented.

11 Q Let me ask you to skip down to the second item
12 from the bottom, which begins, "The construction drawing
13 index..." Could you read that out loud for me, please?

14 A "The construction drawing index (CDI) did not
15 indicate the current revision status of eleven drawings out
16 of approximately eighteen drawings scanned on the CDI."

17 Q What is the purpose of that requirement?

18 A The purpose of that requirement is to provide
19 a list which would indicate the current revisions of all
20 drawings.

21 Q Is that important?

22 A Yes, I think it's important that that be readily
23 available.

24 Q Why?

25 A So that those who need to use the control documents

mgc 11-2 1

can be aware of the current revision status.

2 Q In reviewing this finding, it would be your
3 opinion that this procedure -- that the results indicated
4 there would show that this procedure was not being
5 effectively implemented?

6 A Well, what we found was that the construction
7 drawing index was out of date with respect to the revised
8 number of drawings, and the construction drawing index was
9 a document that had been in use prior to the formation of
10 the project team, and our action here was to enter the
11 revision status of drawings into the records management
12 system, which would then provide that index.

13 And so I guess I would agree with you, that
14 construction drawing index was not effective for this task,
15 and we replaced it with a records management system.

16 Q Do you believe that new records management system
17 to be an effective resolution of this problem?

18 A Yes, I do.

19 Q Would you turn to the next page, please? Could
20 you read the finding on the top of the page, please,
21 beginning with "Record filing"?

22 A "Record filing, indexing and control of
23 engineering materials memorandums and specifications per
24 EMP-11.1, Rev. 0 had been discontinued under the premise
25 that the records managment system had become fully

mgc 11-3 1 operational, when in fact the RMS is approximately seven
2 months backlogged for EMMs and specifications are not
3 fully operational."

4 Q So is it still your testimony that the new system
5 is an effective resolution of the concern raised in that
6 previous finding?

7 Yes, it is. It, of course, took some time to enter
8 the drawings in the records management system, but in addition,
9 the mechanisms for handling of the two documents are
10 different, and the drawings are entered in very quickly.
11 This was a separate problem.

12 Q All right. Does this finding indicate a failure
13 to effectively implement this requirement?

14 MR. NORTON: Excuse me. Which requirement?

15 BY MR. KAUFMAN:

16 Q The requirement in the finding at the top of
17 the page on Page 2, EMP-11.1, Rev 0 -- sorry -- the
18 records management system.

19 MR. NORTON: Excuse me, Your Honor.

20 JUDGE MOORE: Ask the question again.

21 BY MR. KAUFMAN:

22 Q Okay. Does this indicate that the records
23 management system was not being effectively implemented
24 in this timeframe?

25 A (Witness Jacobson) No, it does not. It indicates

mgc 11-4 1 one aspect in which we were having difficulties in getting
2 documents into the system. That's only one part of it.

3 Q Is it a necessary part?

4 A This requirement is dealing with records retention
5 of the engineering material memorandums.

6 Yes, it is necessary that records be kept of those,
7 and the purpose of this requirement was to enter them into
8 the long-term record storage system.

9 Q Why is that?

10 A I dont' understand.

11 JUDGE MOORE: I don't understand the question,
12 either.

13 MR. KAUFMAN: Never mind. I don't understand it,
14 either.

15 JUDGE MOORE: It is now noon. How much further
16 questioning on this document do you have?

17 MR. KAUFMAN: I'm done with this document.

18 JUDGE MOORE: I think it's probably --

19 MR. KAUFMAN: I want to make sure that I entered
20 this document into evidence. I believe I did.

21 JUDGE MOORE: You did.

22 MR. CHANDLER: I believe it was only marked for
23 Identification, Mr. Chairman

24 JUDGE MOORE: No, it was moved into evidence.
25 I admitted it.

mgc 11-5

1 We will recess at this time, but before we
2 formally recess, I would like to speak to all Counsel to
3 get some notion of where we are going and how long it is
4 going to take.

5 So Mr. Kaufman, how much further corss-examination
6 do you have of this panel?

7 MR. KAUFMAN: Two, perhaps three hours.

8 JUDGE MOORE: Mr. Havian?

9 MR. HAVIAN: I believe three hours, Mr. Chairman.

10 JUDGE MOORE: Mr. Chandler, you have just turned
11 color on me.

12 (Laughter.)

13 MR. CHANDLER: No, sir. What color was that?
14 Very little, Mr. Chairman.

15 JUDGE MOORE: Very pale.

16 Mr. Norton, have you recovered?

17 MR. NORTON: No.

18 JUDGE MOORE: We will reconvene at 1:15 today
19 in an attempt to move it along.

20 MR. NORTON: Excuse me, Your Honor. The Joint
21 Intervenors projected two to three hours, and after six
22 hours by the Governor, I don't understand how they can still
23 have the max of what they projected last --

24 MR. HAVIAN: When we made the time --

25 JUDGE MOORE: Mr. Norton, I am sure that after

mgc 11-6 1 the completion of the Governor's cross-examination,
2 Mr. Havian will not have that much remaining. He, of course,
3 has no way of knowing what subjects are going to be --
4 presumably has no way of knowing what subjects are going to
5 be covered.

6 We will recess until 1:15, and I would like to
7 see all Counsel, once again.

8 (Bench conference held).

9 (Whereupon, at 12 noon, the hearing was
10 recessed to resume at 1:15 p.m. this same day.)
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

mgc 12-1 1

AFTERNOON SESSION

(1:15 p.m.)

2
3 Whereupon,

4 CHARLES W. DICK

5 MICHAEL J. JACOBSON

6 STEVEN M. SKIDMORE

7 THOMAS G. DE URIARTE

8 resumed the stand and, having been previously duly sworn,
9 were examined and testified further as follows:

10 JUDGE MOORE: Mr. Kaufman, proceed.

11 CROSS-EXAMINATION (RESUMED)

12 BY MR. KAUFMAN:

13 Q Mr. DeUriarte, at Page 13 of your testimony,
14 you testified that the PG&E Engineering Manual sets forth
15 the PG&E engineering procedures; is that correct?

16 A (Witness DeUriarte) Yes, that's correct.

17 Q What is the purpose of this manual?

18 A The PG&E Engineering Manual contains procedures
19 which control the activities of the Engineering Department
20 personnel for activities concerning the design of Diablo
21 Canyon. Some of the procedures also cover design activities
22 for other projects.

23 Q Does this manual serve an important function?

24 A Yes, it does. The manual is intended to also
25 describe for Engineering Department personnel how they

mgc 12-2 1 implement the requirements of the Quality Assurance Manual
2 and quality assurance program.

3 Q Was an audit of the control of this manual
4 conducted in 1983 by PG&E?

5 A I'm not sure of the year. Manual control or
6 document control is one of the things that we audit
7 routinely on a calendar basis. It may have been covered in
8 1983.

9 Q I have before me a document labeled Governor's
10 Exhibit 40, which I will have passed to you.

11 (Document distributed to Board, parties and
12 witnesses.)

13 JUDGE MOORE: Governor's Exhibit No. 40 is
14 marked for Identification.

15 (The document referred to
16 was marked Governor's Exhibit
17 No. 40 for Identification.)

18 BY MR. KAUFMAN:

19 Q Could you identify this document for me, please?

20 A (Witness DeUriarte) Yes, I can. This is an
21 audit performed by Engineering Quality Control personnel
22 who are part of the Engineering Department. This is
23 Audit No. EQ-8303, and the subject was "Procedure 5.1,
24 Engineering Department Manual Control."

25 Q Have you read this document?

mgc 12-3 1

2 A I probably did at the time it was issued. I
3 don't remember it specifically.

4 Q Mr. Skidmore, have you had an opportunity to
5 read this document in the past?

6 A (Witness Skidmore) No.

7 Q Mr. Jacobson, have you had an opportunity to
8 read this document?

9 A (Witness Jacobson) I think this is the first
10 time I have seen it.

11 Q Mr. Dick?

12 A (Witness Dick) I haven't seen the document.

13 Q Mr. Skidmore, would it be an ordinary occurrence
14 for you not to have seen all audit reports of this nature?

15 A (Witness Skidmore) Well, I think we need to
16 clarify one thing that might lay this at rest with respect
17 to me. The date of the document is April 21, 1983. My
18 tenure as Manager of Quality Assurance stems from May 18,
19 1983, so this audit was done and the document produced prior
20 to that point in time.

21 Q Okay. And at the time you assumed responsibility
22 for the quality assurance organization, you did not look
23 back at any of the past practices or audits that were
24 conducted of the "G&E organization, quality assurance
25 organization?

A Let me answer it this was. There are some fifty

mgc 12-4 1 people in the Quality Assurance Department, counting
2 permanent employees and outside contractors hired to do
3 some work.

4 I don't work in a vacuum. I rely on the expertise
5 of the persons that are in there. As such, I provide
6 direction and management interfacing with senior management
7 in directing the Department's activities. I don't review
8 each and every document ever produced back to Day One, no.

9 Q So the answer to my question is no, right?

10 A That's correct. It's no, not necessarily.

11 A (Witness DeUriarte) May I add something to that?

12 Q Sure.

13 A As I pointed out, this is an audit report issued
14 by Engineering Quality Control. They are not part of our
15 department. We would get a copy of this audit for
16 information, but the people who are reporting to me on the
17 audit program did not perform this audit.

18 A (Witness Skidmore) Let me further clarify.
19 The Department Manager at that time, Mr. Warren Raymond's
20 name is on "Distribution," had as his superior Mr. Warren
21 Schuyler, Vice President of Nuclear Power Generation.

22 So they had that document in their possession
23 when that was issued back in April.

24 Q So you recognize this as a document that has been
25 in PG&E's files; is that correct?

mgc 12-5 1

MR. NORTON: If these are for foundational purposes, we have no objection to his document.

MR. KAUFMAN: I move that Governor's Exhibit No. 40 be admitted into evidence.

JUDGE MOORE: Any objections?

MR. HAVIAN: No objection.

JUDGE MOORE: Governor's Exhibit No. 40 is admitted.

(The document previously marked Governor's Exhibit No. 40 for Identification was received in evidence.)

BY MR. KAUFMAN:

Q I have also before me a document labeled Governor's Exhibit 41 -- I'm sorry -- 42.

(Document distributed to Board, parties and witnesses.)

JUDGE MOORE: Governor's Exhibit No. 42 is marked for Identification.

(The document referred to was marked Governor's Exhibit No. 42 for Identification.)

MR. NORTON: Excuse me. May I ask Mr. Kaufman if he has -- this appears to be, looking at document numbers, the last three digits, the one that just went into evidence

mgc 12-6

1 was 517, and this appears to be 519, and I am wondering
2 where 518 is?

3 MR. KAUFMAN: This is a document which is part
4 of a larger document, but we are not offering the document
5 in its entirety. This is an attachment to this particular
6 audit. In the interest of saving time of going through the
7 entire document, we are offering this particular portion of
8 it, as well as the lead portion of the audit, because it
9 is pertinent to the subject matter that we want to address.

10 JUDGE MOORE: But do you have the entire
11 document, so that Counsel and the witnesses and we can
12 understand the context on which you are proceeding?

13 MR. HAVIAN: Mr. Chairman, I would note for
14 the record, this does say it is Page 1 of 1, so at least
15 we know the entire Attachment B is here.

16 MR. KAUFMAN: Mr. Chairman, we have the entire
17 document, a single copy of the entire document. We would
18 be happy to give it to Counsel for PG&E to determine --
19 or to the panel to determine whether they need the rest
20 of the document.

21 JUDGE MOORE: Mr. Kaufman, would it be profitable
22 to proceed to some other line of questioning that you have,
23 and while you are doing that, to have one of your associates
24 round up sufficient copies of that document, so you can
25 come back to it later today?

mgc 12-7 1

MR. KAUFMAN: I think I have lost all my

2 associates.

3 MR. NORTON: If I could take a look at it,

4 I might not have any objection at all, just the selective

5 process --

6 JUDGE MOORE: Let's take a few minutes right in

7 place, and let us take a look at the document all the way

8 around. Let me see it a minute.

9 (Discussion off the record.)

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

ki 13:1

1 JUDGE MOORE: Mr. Norton, this is -- apparently
2 Governor's Exhibit No. 24 is Attachment B to Governor's
3 Exhibit --

4 MR. KAUFMAN: Excuse me, Mr. Chairman. It's 42.

5 JUDGE MOORE: 42 is Attachment B of Governor's
6 Exhibit 40, I believe.

7 MR. NORTON: Yes. And if you look at all the
8 documents that are attached to it, that were produced with
9 it, to show all the corrective actions and so on and so forth,
10 then I guess the Governor doesn't want that in evidence, so
11 I don't have any real problem. He wants the errors and not
12 the corrective action in.

13 JUDGE MOORE: You, of course, can put it in,
14 Mr. Norton.

15 MR. NORTON: Yes That takes twice as long.

16 JUDGE MOORE: Go ahead.

17 MR. KAUFMAN: If counsel have no objection, I move
18 Governor's Exhibit 42 be admitted into evidence.

19 MR. NORTON: No objection.

20 MR. MC GURREN: No objection.

21 MR. HAVIAN: No objection.

22 JUDGE MOORE: It's admitted.

23 (The document previously marked
24 Governor's Exhibit No. 42
25 for identification was recieved
in evidence.)

XXXXXX

ki 13:2

1 BY MR. KAUFMAN:

2 Q Mr. De Uriarte, would you please read the second
3 sentence in the second paragraph -- well, actually, the
4 second, third, and fourth sentences in the second paragraph
5 that appears on page 1 of Governor's Exhibit 40, please.

6 A (Witness De Uriarte) Are you talking about the
7 cover letter?

8 Q Right.

9 A The second, third, and fourth sentences did you
10 say?

11 Q Yes. The sentence that begins with the word
12 "unfortunately."

13 A "Unfortunately --

14 MR. NORTON: Excuse me, Your Honor. Is it necessary
15 to read exhibits out loud that have been admitted into evidence
16 when there is no question pending? It just takes time. It
17 doesn't serve any purpose. It's in evidence.

18 JUDGE MOORE: Mr. Norton, that's the way he wants
19 to proceed. He received my admonishment earlier about I
20 would put a time limit on him if he doesn't speed it up.

21 BY MR. KAUFMAN:

22 Q Could you please read those three sentences?

23 A (Witness De Uriarte) "Unfortunately, the audit
24 also revealed that an excessive number of manuals had missing,
25 misfiled, or out of date procedures. In fact, 48 percent of

ki 13:3

1 the 66 manuals inspected were found to be deficient in some
2 way. This failure to keep our engineering manuals up to date
3 appears to run uniformly across the engineering department."

4 Q Would you read the next sentence?

5 A "Obviously, it is very difficult for us to maintain
6 that we have a controlled quality program in the engineering
7 department when nearly half of our engineering manuals are
8 not maintained by their owner."

9 Q As a QA professional, would you agree with the
10 conclusion expressed in those sentences?

11 A Well, I don't know anything about the numbers.
12 The statement that it is difficult for us to maintain that we
13 have a controlled quality program is really someone's
14 opinion.

15 I would maintain, as the supervisor of the audit
16 program, that I would rely on my audit results rather than
17 the fact that some people have their manuals out of order.

18 If you look at the details of this audit report,
19 it states that some of the discrepant manuals, as they are
20 characterized, were people who had received updated procedures,
21 but had not properly filed them in the manual. That doesn't
22 mean that they didn't have them in their possession or that
23 they didn't know what they contained.

24 A (Witness Skidmore) Let me add a further clarifica-
25 tion. There are several things in looking at the situation

ki 13:4

1 of a manual being out of date and a broad-brush statement
2 such as the ones that you asked Mr. De Uriarte to read.

3 You have to ask how overdue were those changes and
4 how significant were the changes. To talk about just a
5 discrepant condition is really very vague. You have to really
6 get into it, to see if there is a real significant situation
7 that exists.

8 Q Mr. Jacobson, could you look at Governor's Exhibit
9 42, please?

10 A (Witness Jacobson) Yes, I have it.

11 Q On the lefthand side of that document, there is a
12 column labeled "Department" or "Project." And if you go
13 down one, two, three, four, five, six, seven, you get to
14 DC Proj, which I take it is Diablo Canyon Project. Would you
15 agree with me that that is a characterization of the Diablo
16 Canyon Project?

17 A Yes, I think so.

18 Q If you read across the line under the category
19 manuals visually inspected by audit team, you get 33 manuals;
20 is that correct?

21 A Yes, sir.

22 Q And the next column, manuals found deficient, you
23 have the figure 18, which they describe as being 55 percent
24 of the manuals; is that correct?

25 A Yes, sir.

ki 13:5

1 Q In the final column, they have a figure that is
2 the average discrepancies per visually audited manual. That
3 comes out to 16; is that correct?

4 A Yes.

5 Q Would you say that the design control procedures
6 for the engineering manual were being effectively implemented?

7 MR. NORTON: May we ask where?

8 JUDGE MOORE: Specify, Mr. Kaufman.

9 BY MR. KAUFMAN:

10 Q In the DC project.

11 A (Witness Jacobson) Okay. I would answer by saying,
12 first of all, this audit, as Mr. De Uriarte stated, was done
13 by PG&E engineering quality control, which is totally over
14 and above the Diablo Canyon Project QA program.

15 So as I read the report, what they were effectively
16 doing is coming in and looking at the controlled manuals on
17 their own, to see if they were okay, and to make any corrections.

18 I think that was a very good thing for them to have
19 done, and I think it would contribute to us complying with
20 the program.

21 Q Are you disturbed by the fact that your program
22 apparently missed these deficiencies?

23 A I'm actually pleased that engineering quality con-
24 trol did the review and found these misfiling errors, or what-
25 ever they are, **before** my auditors came in and found them.

ki 13:6

1 Q Did you undertake any investigation as to why
2 your auditors had failed to detect these deficiencies?

3 A No. As I stated, this was an effort done by
4 PG&E engineering internally. I was aware that this review
5 was done, but this is the first time I've seen the report.
6 So, as I say, I was pleased with their efforts.

7 JUDGE JOHNSON: Is the upkeep of these manuals
8 required by the project quality assurance program? Do these
9 appear in the controlled documents in the DCP quality assurance
10 program?

11 WITNESS JACOBSON: Yes. They are a controlled
12 manual. That's a part of the program. We would expect them
13 to be kept up to date. However, with the number of manuals
14 on the project, it does not surprise me that there are some
15 inconsistencies found. There are so many procedures in each
16 manual, many attachments.

17 JUDGE JOHNSON: But would not your normal project
18 quality assurance audit routinely determine whether these
19 things were being kept up to date? In other words, suppose
20 engineering had not run their own audit; how long would it
21 have taken before the discrepant conditions that were indicated
22 here to have been determined and located and corrected by
23 your own audit procedures?

24 WITNESS JACOBSON: This particular area is addressed
25 through the management audit program and also through monitoring

ki 13:7

1 activities of the project QA group.

2 So the management audit is at least once a year,
3 and we were talking about that this morning. It occurred in
4 December. And monitoring activities are really on an as-
5 needed basis.

6 JUDGE JOHNSON: I am sure I understand exactly
7 why a manual -- I mean, you're talking about 214 manuals that
8 are in the hands, presumably, of the people who are actually
9 doing the work, and where then mistakes can be made. It's
10 not a management function. You don't have 214 managers
11 down there. This is in-the-trenches sort of work, it would
12 appear to me.

13 I have a little difficulty seeing how some 50 percent
14 of these things could be discrepant and your normal auditing
15 procedures not be aware of it and not picked it up.

16 WITNESS JACOBSON: Well, I think it's a situation
17 that changes over time. There are a lot of revisions to the
18 manual that come out, and we may look at it at one point
19 in time and it would be perfectly okay, and a month later
20 there might be some discrepancies.

21 JUDGE JOHNSON: Well, had you looked at it -- I
22 mean, when the previous management audit had been performed,
23 was this aspect of the program inspected and was it determined
24 to be adequate?

25 WITNESS JACOBSON: I believe it was.

ki 13:8

1 JUDGE JOHNSON: Do you have an audit record to
2 demonstrate that?

3 WITNESS JACOBSON: Yes. That was the management
4 audit. That was not done by my group. But there are records
5 that show what was reviewed in that audit. And it would
6 have been in their scope.

7 JUDGE JOHNSON: And is it your testimony that the
8 engineering manuals were determined as a result of that audit
9 to have been kept up to date properly? And I don't mean
10 100 percent of them.

11 MR. NORTON: Excuse me, Your Honor. One of the
12 problems is the rest of the document talks about the kinds of
13 findings and so on and so forth -- discrepancies -- excuse
14 me -- which makes the questioning and the answers which this
15 gentleman has said he's never seen the document before, very
16 difficult. But we're, apparently, not to be favored with the
17 rest of the document at this point in time.

18 We will provide it on redirect. But I don't know
19 how they can answer your questions without the rest of the
20 document.

21 JUDGE MOORE: Mr. Norton, we will have to put up
22 with the inefficiency, since that's the way they have chosen
23 to proceed. And you'll pick it up on redirect, and we can
24 then do it.

25 MR. NORTON: I suspect it will be rebuttal, because

ki 13:9

1 we're going to have to go -- they would not favor us with
2 the fact they're going to use this document. We produced
3 40,000; I did not bring them in my briefcase; we'll have to
4 get it down here.

5 JUDGE MOORE: Okay.

6 JUDGE BUCK: May I ask a couple questions here
7 before you go on?

8 Mr. Jacobson, do you normally get copies of these
9 management audits, or only if they think they're unsatisfactory?

10 WITNESS JACOBSON: The management audits, I would
11 get all reports, yes.

12 JUDGE BUCK: But you haven't seen this one?

13 WITNESS JACOBSON: No, I'm sorry. The management
14 audit that was done was the one that we were talking about
15 this morning. I have that report here. It's Governor's
16 Exhibit 33.

17 JUDGE BUCK: But you hadn't seen it previously?

18 WITNESS JACOBSON: Yes, I have seen that. The
19 one I have not seen is Governor's Exhibit 40, which was an
20 audit done by the engineering quality control department that's
21 within PG&E.

22 JUDGE BUCK: You would not normally receive that
23 report?

24 WITNESS JACOBSON: No. This was something that they
25 did on their own, which is totally outside the scope of the

ki 13:10

1 Diablo Canyon Project QA program.

2 JUDGE BUCK: What's the purpose of it?

3 WITNESS JACOBSON: I think the purpose of it was
4 for them to control their own work in the engineering
5 department.

End 13

mgc 14-1 1

2 JUDGE BUCK: So you are saying this is an internal
report of that particular department?

3 WITNESS JACOBSON: Yes.

4 JUDGE BUCK: Okay.

5 Now each one of these manuals is given out to an
6 engineer; is that correct?

7 WITNESS JACOBSON: Yes, an engineer or a group
8 leader or a group supervisor.

9 JUDGE BUCK: Do they all use all parts of the
10 manual in their work, or do they normally --

11 WITNESS JACOBSON: No, I think some procedures
12 are used much more frequently than others. If a designer
13 is doing certain design analysis, he will probably be using
14 one or two procedures much more than any of the others.

15 JUDGE BUCK: All right. Thank you.

16 JUDGE JOHNSON: I think I still have a question.

17 JUDGE BUCK: Excuse me a moment.

18 WITNESS DICK: I was just going to try to add
19 something, because I don't think it's come out in the
20 discussion here.

21 I also get copies of the changes. I review them
22 quickly, although they don't directly affect me. And
23 subject to correction by the other members of the panel
24 here, it is my perception that there have been no
25 significant changes in that Engineering Manual here in

mgc 14-2 1 recent months. They have refined it, they have updated it
2 to reflect such things as organizational changes and that
3 sort of thing, but no conceptual changes.

4 So I think that puts the significance of this
5 in a little different perspective than just reading the
6 raw numbers.

7 JUDGE JOHNSON: I'm not sure I understand that,
8 Mr. Dick. If there haven't been any changes, why was it
9 that the manuals were not up to date?

10 WITNESS DICK: I'm sorry that I didn't make that
11 more clear, sir. What I was intending to convey was that
12 there were no major significant changes in the concepts of
13 how we do our work, as is reflected in that Engineering
14 Manual. That was my perception of the state of the manual.

15 We did make some fairly significant changes when
16 the project was formed. Since then, it has been an
17 evolutionary updating type of thing, but nothing, as I
18 characterized it earlier, of a conceptual nature.

19 JUDGE JOHNSON: I think that deals with the
20 significance from the engineering results standpoint.

21 WITNESS DICK: Yes, sir. That was my intention.

22 JUDGE JOHNSON: I was thinking of it from the
23 standpoint of attention to quality assurance requirements
24 by the individual engineers' standpoint.

25 In other words, of the 214 people responsible

ngc 14-3

1 for keeping these manuals up, apparently 55 percent of
2 them, if you take a random sampling example, had not kept
3 their manuals up in accordance with procedures.

4 WITNESS DICK: That seems clear from this point,
5 yes.

6 MR. NORTON: Excuse me, Your Honor. I think
7 you are misreading the numbers off of the chart. I think
8 you've got to read the headings a little more carefully
9 than Mr. Kaufman asks the questions, perhaps.

10 They've got "Manuals Assigned," then they've
11 got "Manuals Requiring Updating," which is only 51, not
12 214.

13 JUDGE JOHNSON: I said there were 214 manuals
14 out in the field and that 55 percent of them were found to
15 be deficient, and that is directly off of the column,
16 next to the last on the right, Mr. Norton.

17 If I am somehow misreading that, I would be
18 glad to find out how I am doing it.

19 MR. NORTON: Excuse me. I am just looking at
20 the same chart that you are. The first column gives the
21 number 214. The next column gives manuals requiring
22 update per manual-holders. It says 51, which equals 24
23 percent. I'm not sure what that means. I'm not sure that
24 means that 24 percent of those 214 needed updating, or
25 whether -- I don't know how to read that.

mgc 14-4 1

JUDGE MOORE: Mr. Norton, we are going to have
2 to wait until either your rebuttal or your redirect for
3 you to sort it all out for us.

4 MR. NORTON: Okay.

5 The examiner is assuming something from the
6 document that isn't evident to me.

7 JUDGE MOORE: Mr. Kaufman, proceed.

8 MR. KAUFMAN: Okay.

9 JUDGE MOORE: Unless, of course, you would like
10 to put the rest of that document in, and we can get it all
11 taken care of in half the time.

12 MR. KAUFMAN: We only have -- I don't have
13 eleven copies of it at the present time, Mr. Chairman.

14 Dr. Johnson, did you have a question?

15 JUDGE JOHNSON: My question again to Mr. Jacobson
16 was, was the subject of these manuals included -- was the
17 status of these manuals one of the items that was included
18 in the management audit which we have seen as Governor's
19 Exhibit No. 33?

20 WITNESS JACOBSON: Yes, I believe it was.

21 JUDGE JOHNSON: And is it your understanding
22 that this audit found no deficiencies in the status of
23 these Engineering Manuals?

24 WITNESS JACOBSON: Yes, that's my understanding.

25 JUDGE JOHNSON: Okay. I have no further questions,

mgc 14-5 1 Mr. Kaufman.

2 BY MR. KAUFMAN:

3 Q Mr. Jacobson, could you point to any portion of
4 the Bechtel Power Corporation audit, management audit,
5 Governor's Exhibit No. 33, upon which you relied for your
6 last statement?

7 A (Witness Jacobson) On the Audit Finding Action
8 Schedule, Page 1, about the fourth page back under Audit:
9 Subject I, --

10 MR. NORTON: The number, I think, is 0044731 at
11 the top of the page.

12 WITNESS JACOBSON: This audit area concerned
13 engineering program control, and it did include control
14 of EMPs, Engineering Manual Procedures.

15 BY MR. KAUFMAN:

16 Q So are we to conclude from this fact that either
17 that the auditor was unable to detect a deficiency, or
18 that the deficiency occurred after the audit? Which?

19 A (Witness Jacobson) As I stated earlier, I
20 think these things change over time. My conclusion would
21 be that it was satisfactory at the time of the audit.

22 Q But you didn't conduct an investigation to
23 determine that that was, in fact, the case; is that correct?

24 A No, I had no reason to. The management audit
25 team had already done an extensive review. It was one

mgc 14-6 1 of the areas they looked at, and that was found acceptable.

2 Q Thank you.

3 Mr. Jacobson, you would agree, would you not,
4 that in general quality assurance auditors for the DCP
5 only check to see that the engineering process procedures
6 have properly been followed? In other words, they do not
7 generally check to see if the design criteria had actually
8 been met; is that right?

9 A In some cases, we review the translation of the
10 design input into an analysis, but that is very much on a
11 sampling basis. In general, I would agree with your
12 statement. We are auditing for implementation of procedures
13 and effectiveness of the procedures.

14 Q And isn't it the case that quality assurance
15 auditors are not competent to make such determinations in
16 most cases?

17 A In most cases, it is not part of their job to
18 make engineering judgments on the adequacy of design.

19 Q So these quality assurance auditors do not audit
20 the DCP design product for compliance with design criteria;
21 is that right?

22 A That's not completely correct. We will audit
23 to see that a design input has been properly put into the
24 calculation, as an example. It is not our job or function
25 to redo the design. It is our job to selectively review

mgc 14-7 1 that the procedures are being implemented. We do check
2 those kinds of inputs to give us one more indication that
3 the process is working.

4 Q But the auditors do not check to see that the
5 individual normally assigned the job of verifying the
6 design product has, in fact, done his job correctly; isn't
7 that true?

8 A I think most of the time that would involve
9 making an engineering judgment and doing a complete recheck
10 of the calculation, and that's not what an audit program
11 is intended to do.

12 Q You are familiar, are you not, with Criterion 18
13 of Appendix B to 10 CFR Part 50?

14 A Yes, I am.

15 Q I will let you be given a copy of Criterion 18.
16 (Document handed to witness.)

17 Could you read the first sentence of Criterion 18,
18 please?

19 A The first sentence: "A comprehensive system of
20 planned and periodic audits shall be carried out to
21 verify compliance with all aspects of the quality assurance
22 program and to determine the effectiveness of the program."

23 Q Is one aspect of the quality assurance program
24 design control?

25 A Yes.

mgc 14-8 1

2 Q And design verification is an aspect of the
quality assurance program; that's also true?

3 A Yes.

4 Q But you just testified, did you not, that
5 the Diablo Canyon quality assurance auditors do not audit
6 for design verification, didn't you?

7 A I don't think so. We do audit for design
8 verification. We audit to make sure that the procedure for
9 design verification is complied with.

10 Q Didn't you say you audit for the process and not
11 the product?

12 A Yes, I think so.

13 JUDGE JOHNSON: May I step in here?

14 What you are saying, is it not, is that the program
15 requires that there be design verification. That is a
16 quality assurance program requirement. And what your
17 auditors do is go in and make sure that that requirement
18 has been fulfilled by those people who would do design
19 verification. Is that it?

20 WITNESS JACOBSON: That's correct.

21 JUDGE JOHNSON: So George does a design, Frank
22 verifies it according to the procedures, and your auditor
23 goes in to make sure that Frank did the job he was supposed
24 to do with George's design. Is that what you are saying?

25 WITNESS JACOBSON: Yes, that's right.

mgc 14-9 1

JUDGE JOHNSON: I think I understand it now.

2

Mr. Kaufman?

3

BY MR. KAUFMAN:

4

Q But he doesn't make sure that -- now I've

5

forgotten the name -- whoever the person doing the review

6

did his job correctly. The review only involved determining

7

that a review is done; is that correct?

8

A (Witness Jacobson) Yes. He does not go through

9

and recheck the calculation. That's correct.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

ki 15:1

1 Q When a reviewing engineer verifies that the
2 originating engineer has met design criteria, he isn't per-
3 forming an audit function, is he?

4 A No, he is performing a verification function, if
5 you will, part of the quality control measures that engineering
6 is implementing.

7 Q An engineering chief doesn't perform an audit
8 function when he does a surveillance of the originating
9 engineer's work or reviewing engineer's work; isn't that
10 true?

11 A I would refer to it as a design review, and not as
12 an audit.

13 Q Does engineering quality control, in performing
14 surveillance activities, do an audit of whether design
15 criteria have been met? The design product -- my question
16 is, the design product.

17 A Are you speaking of the Diablo Canyon Project now?

18 Q That's correct.

19 A The review that they do is characterized as a
20 surveillance; it's not characterized as an audit.

21 Q You're familiar with construction quality assurance
22 programs, are you not?

23 A Yes, I am.

24 Q These construction quality assurance programs
25 have to meet the same requirements of Criterion 18, as do

ki 15:2

1 design quality assurance programs, don't they?

2 A Yes.

3 Q QA auditors for construction qualification do
4 verification of the construction product, do they not?

5 A Again, they are auditing for compliance to the
6 procedure, and the effectiveness of the procedure. And that
7 may, at times, include looking up hardware to see that it
8 matches a drawing on a sampling basis.

9 That's very similar to what I described previously,
10 where we may look at a design input number, if that's very
11 clear, and look at the analysis to see if it was transcribed.

12 Q It's your testimony that quality assurance auditors
13 who are auditing construction quality assurance, look at the
14 project, the construction product in the same way that your
15 quality assurance auditors look at the design product?

16 A I don't think you can really compare the two
17 programs directly. There are some similarities, as I have
18 described.

19 Q In the DCP quality assurance organization, who
20 are the individuals responsible for -- to assure that the
21 engineering process has been followed? In other words, for
22 example, correct data, input that have been received; and
23 by individuals, I mean generically, their occupational role
24 within the quality assurance organization.

25 A If I understand your question correctly, there would

ki 15:3

S2 BU

1 be many individuals who would be responsible for and take
2 part in that process -- the originating engineer, the checking
3 engineer, other engineers who may perform design verification
4 work, as well as chief engineers that may review the work.

5 Then, in addition, engineering quality control and
6 quality assurance, who may have occasion to look at the
7 work.

8 Q And in the DCP organization, who is responsible
9 for verifying that the design product produced meets the
10 design criteria established for it?

11 A I would say primarily two individuals: the originator
12 of the analysis and the checker of the analysis.

13 Q Okay. With respect to the process, if it were
14 subsequently determined by an outside auditor that, for example,
15 incorrect data was utilized and this fact had gone undetected
16 by the DCP quality assurance organization. This would be a
17 failure of all the people you mentioned who had responsibility
18 to do their job correctly. Is that right?

19 A No, not necessarily. I think in most cases, it
20 would not be. The design process is structured that the
21 various reviews I described are aimed at the important
22 elements of design. Design verification, for example, is
23 performed of the overall system or structure design, to see
24 that it all fits together.

25 The reviews by the chief engineers are selected

ki 15:4

1 design documents which they feel are most important, that
2 they would like to review.

3 So all of those would not necessarily have occasion
4 to have looked at this particular input.

5 Q Let's take a significant data input, something
6 that you would characterize as a significant data input.
7 And it was subsequently determined by an outside auditor that
8 none of the people responsible for assuring that the correct
9 data was provided had detected the fact that incorrect data
10 had been provided.

11 Would this indicate to you that there had been a
12 failure by all these individuals to do their job correctly?

13 MR. NORTON: Excuse me, Your Honor. I'm very
14 familiar with this line of questioning, having listened to
15 it for two days in depositions. I have the same objection
16 now as I did then.

17 You have to give a specific hypothetical.

18 JUDGE MOORE: The only thing is, we weren't there
19 for two days during the deposition.

20 MR. NORTON: You were lucky. The problem is, there
21 is no example given, and obviously the range of answers can
22 be from A to Z, depending on what the facts of the hypothetical
23 are. All we have is an error, and that's it. And there's
24 no way to answer those questions unless you say what kind of
25 an error.

vi 15:5

1 So it just goes around and around in circles
2 without that.

3 MR. KAUFMAN: Maybe I can help him out --

4 JUDGE MOORE: You might have noticed that the
5 witnesses are not agreeing with your generalities, and so
6 you ought to -- to get the record you're attempting to build,
7 you ought to zero in on it as quickly as you can and be
8 specific.

9 BY MR. KAUFMAN:

10 Q If I make it an example, where we have an
11 Error A -- are you familiar with the term Error A, as used
12 in independent design verification program?

13 A (Witness Jacobson) Yes, I am.

14 Q If the failure to include this designed data input
15 has resulted in Error A, and none of the individuals you
16 indicated were responsible for assuring that the correct data
17 were provided, would you consider that to be a failure by
18 these individuals to have done their job correctly?

19 A I think you have to go back and look at the specific
20 situation and where the problem arose. An Error A may still
21 be very minor in terms of significance, and it may have
22 arisen in one step along the way of the analysis. For example,
23 the verifier may have done his verification by using an
24 alternative calculation which had good agreement, and yet
25 there could be an error in there that would slightly exceed

ki 15:6

1 criteria and become an Error A.

2 So I think you have to look at the specifics of
3 each case.

4 Q Would you investigate why these individuals -- can
5 you envision circumstances under which you would investigate
6 why these individuals failed to detect a design input error?

7 A Yes. 10 CFR 50, Appendix B, in our QA program,
8 requires to investigate and determine the cause for significant
9 conditions adverse to quality. So if there was a significant
10 problem, we would go back and review it and determine the
11 cause.

12 Q In conducting this review, would you investigate
13 why each one of these individuals had made -- had failed to
14 detect this incorrect data?

15 A I think what we would do is investigate the problem
16 thoroughly until we understood it and how it arose, and that
17 could touch upon any one of the steps. I think you would have
18 to discontinue with your investigation until you understood
19 what the cause was.

20 Q Would you agree with me that it's possible that
21 each individual who failed to detect this error could have
22 done so for a different reason?

23 A I guess that's possible.

24 Q So would you agree with me that if such different
25 reasons existed, there would then be multiple causes for the

ki 15:7

1 undetected error?

2 A Well, I think I would state it a little differently.
3 I think the cause could have several elements. You would
4 have to look in different places to make sure you understood
5 what had happened. The cause could have been related to a
6 QA procedure, or it could have been related to just an
7 individual making a mistake.

8 I think you would just have to review that to find
9 out.

10 Q If you made the determination that there were, in
11 fact, multiple causes, you would then have to consider whether
12 each of these individuals had made similar errors in different
13 areas of their endeavors. Isn't that true?

14 A I don't think I would agree with that completely.
15 For example, a person that made an error, and it was the only
16 time he had ever made one, to your knowledge, I wouldn't really
17 see a justification in going back through all of his work.

18 JUDGE MOORE: Mr. Kaufman, what point are you
19 trying to drive at? I'm a bit lost here, at what you're
20 trying to get at, what the relevancy is of this line of
21 questioning.

22 MR. KAUFMAN: This deals with the root cause
23 contention, and we're trying to understand -- well, I have
24 just been pointed to page 6 of the PG&E testimony.

25 JUDGE MOORE: Be a little more specific in

ki 15:8

1 responding to me, please.

2 MR. KAUFMAN: They testified -- they're answering
3 the question on that page: Does the finding of a single
4 design engineering error really mean that a second error was
5 made in the quality assurance program in failing to detect
6 the design error?

7 And their answer is no.

8 I'm trying to --

9 MR. NORTON: Your Honor, I might point out, just
10 about every question that was asked in the last half hour
11 is answered on page 7, 7 and 8.

12 MR. KAUFMAN: I think I have demonstrated the
13 relevance.

14 JUDGE MOORE: You are about out of time with this
15 line of questioning. Move it along.

16 JUDGE BUCK: I'm not sure of even what your
17 hypothetical has been, Mr. Kaufman. I don't know what you
18 have demonstrated here because I don't know what your examples
19 are. They are all speculative examples with no statement of
20 how many people are involved in the chain, if more than one;
21 whether they're involved in separate branches of the chain,
22 or what.

23 So I can't tell what you're doing.

24 MR. KAUFMAN: Let me see if I can fill you in with
25 some examples from the IDVP's EOIs.

ki 15:9

1 BY MR. KAUFMAN:

2 Q Could you get a copy of EOI 1124 from your staff,
3 please, Mr. Jacobson?

4 MR. NORTON: Could you give us all the EOIs so
5 we can pull all of our teeth at once?

6 MR. KAUFMAN: Sure. 1124, 1126, 1138, 1133, and
7 1141.

8 MR. NORTON: Your Honor, it's going to take a
9 couple of minutes to dig those out.

10 JUDGE MOORE: Fine. Why don't we take five minutes
11 so you can do that?

12 (Recess.)

Fed 15

mgc 16-1 1

JUDGE MOORE: Come to order, please.

2 Have the parties received copies of this?

3 MR. STRUMWASSER: Yes, everybody except

4 Mr. Axelrad.

5 JUDGE MOORE: Mr. Kaufman, before you proceed,
6 it looks to me like you have had better than three hours
7 of cross-examination at this time, and in light of the fact
8 that it appears to us that a great deal of it has been
9 unfocused, some of it quite repetitive, I think I am going
10 to, at this time, impose a time limit. Wrap up your
11 cross-examination in the next hour, and we will see where
12 we stand then.

13 And if you are able to -- if you want any further
14 time, you will have to demonstrate that it is both
15 focused and non-repetitive.

16 Continue, please.

17 MR. KAUFMAN: Mr. Chairman, I don't expect it
18 will take more than another fifteen or twenty minutes.

19 JUDGE MOORE: Continue.

20 BY MR. KAUFMAN:

21 Q Mr. Jacobson, would you take a look at EOI-1124,
22 please? Could you briefly describe for me what the concern
23 identified by the IDVP in that EOI was?

24 JUDGE MOORE: Excuse me, Mr. Kaufman.

25 Mr. Norton, would you be so kind as to provide

mgc 16-2 1 the Applicant's Exhibit Number on this EOI?

2 MR. NORTON: That's not an exhibit.

3 JUDGE BUCK: They are in the ITRs.

4 JUDGE MOORE: Aren't they in the ITRs for the
5 reference?

6 MR. NORTON: Not an EOI filed -- not the EOI
7 filed in the ITR.

8 Also, I will tell you what another problem is.
9 I'm not sure the questions can be answered. The questions --
10 certainly that question that is going to be asked isn't
11 necessarily going to be in the EOI file. It may well be in
12 another document. You might want to ask some foundation
13 questions as to where -- what document that information that
14 you're asking is, because I don't know that it's in the EOI
15 file.

16 JUDGE MOORE: Mr. Kaufman, proceed, but let's lay
17 all the foundation that is necessary to get it done.

18 BY MR. KAUFMAN:

19 Q Mr. Jacobson, could you identify the document
20 that you have in front of you, please?

21 A (Witness Jacobson) I have here the Open Item
22 Report File No. 1124, Final Revision 0.

23 Q Could you please identify for me the concern
24 addressed by the IDVP in that document?

25 A The description of concern is, "Design analysis,

mgc 16-3 1 finite element model of the control room slab used to
2 generate the HOSGRI response spectra does not agree with
3 the field verified location of the supporting walls."

4 MR. NORTON: For the Board's information, I
5 think that EOI is in ITR-55, and I don't know off the top
6 of my head what our exhibit number is on that.

7 JUDGE JOHNSON: I think it is 145 PG&E Exhibit
8 145.

9 BY MR. KAUFMAN:

10 Q Did the DCP reach a conclusion as to the root
11 cause of that error?

12 A (Witness Jacobson) Let me explain what is done.
13 For each of the EOI files, a review is performed to determine
14 if it is a significant condition adverse to quality or if
15 it represents generic concerns. That review was performed
16 on this file, and they did not find it to be a significant
17 condition or to raise generic concerns.

18 Q Well, my question was -- let me ask one question
19 first.

20 What did the IDVP classify this error as?

21 A I believe it was finally classified as an
22 Error B.

23 Q Did your organization determine why this
24 particular error occurred?

25 A Engineering certainly did review that and

mgc 16-41

determined why it occurred in order to arrive at their conclusions. I don't have the answer to that. I would have to go back and read the ITR or perhaps ask someone from Engineering.

Q As part of its effort -in determining the root cause of this error, did your organization determine why the DCP quality assurance organization did not detect that error?

A No, we do not do that, since this did not appear to be a significant condition adverse to quality, where we would go back and convene a technical review group and evaluate the problem.

Q I have asked you to look at EOIs -1126, 1138, 1133 and 1144.

Would your answer to me be the same -- I'm sorry -- 1141.

MR. NORTON: Excuse me. They have not looked at all of those. They were just handed those when they came back from the break. You are going to have to take them one at a time.

MR. KAUFMAN: I'm sorry.

JUDGE MOORE: Slow up, Mr. Kaufman.

MR. KAUFMAN: I'm trying to get this thing over in fifteen minutes, Mr. Chairman.

mgc 16-5 1

BY MR. KAUFMAN:

2 Q Could you please take a look at EOI-1126 and
3 1138?

4 A (Witness Jacobson) Yes.

5 Q What was the concern identified by the IDVP with
6 respect to those EOIs?

7 A The concern in general is the use of stress
8 intensification factors in piping analysis.

9 Q Would you please tell me what a stress
10 intensification factor is?

11 A Well, I'm not a piping designer. I really
12 couldn't define that with precision.

13 Q How is this error classified by the IDVP?

14 A I believe it was ultimately classified as an
15 Error Class C.

16 Q Did the DCP quality assurance organization
17 attempt to determine why this error was undetected by the
18 quality assurance organization originally?

19 A Well, this is not something that would normally
20 be detected in a quality assurance audit. This is a
21 technical detail which had actually an insignificant effect
22 on the final analysis. We reviewed all of these corrective
23 action program EOIs, if you will, and we did see that there
24 were several on stress intensification factors, but we
25 also found Engineering had initiated a discrepancy report

mgc 16-6 1 to go back and review all the analyses for this and correct
2 the use of the stress intensification factors.

3 A (Witness Dick) I would like to add something
4 to Mr. Jacobson's comments there. Something seems to be
5 recurring here. It deals with the recurrences which
6 require quality assurance to investigate the causes of
7 deficiencies

8 The standards and interpretations of Appendix B and
9 good quality assurance practice calls for quality assurance
10 to investigate the cause of significant and recurring
11 errors. It does not cause -- it does not call for quality
12 assurance to investigate each and every minor deficiency
13 that comes along, but "significant and recurring" are the
14 operative words.

15 Q Both of those factors are necessary?

16 A Significant or recurring.

17 Q Let me, Mr. Jacobson, ask you one more before
18 I move on -- one more EOI. That's 1141.

19 Would you tell me please what the concern
20 identified by the IDVP was with respect to that EOI?

21 A (Witness Jacobson) Well, let me read it.

22 "Diablo Canyon Project Procedure P-11,
23 Revision 4, does not include Line Nos. 26 and 1040 through
24 1043, high energy lines outside containment, for postulated
25 break location review."

mgc 16-7 1

2 Q How did the IDVP classify that in its error
classification?

3 A I believe this was ultimately combined with
4 EOI-1098, so that the IDVP could review it as a part of
5 their overall process for closing the piping analysis work.

6 Q Your organization did not attempt to determine
7 why the quality -- the DCP quality assurance program failed
8 to detect the fact that these high energy lines had not been
9 identified; is that correct?

10 A We reviewed this EOI and also the project's
11 response to it, and we looked at the relevant procedures.
12 This was really a case where Procedure P-11 was not the
13 proper reference. There was a Piping Instruction being
14 developed that listed the actual lines that had to be
15 considered. So there really was no error here. It was the
16 use of a procedure for a purpose for which it was not
17 intended. The P-11 procedure was intended to remind the
18 piping designer to be aware that these were high energy
19 lines.

20 Q Am I to understand from your answer that you
21 disagree with the IDVP's classification?

22 A This was --

23 MR. NORTON: Excuse me, Your Honor. Object.

24 JUDGE MOORE: Grounds?

25 MR. NORTON: There is no foundation as to what

mgc 16-81 the IDVP's classification was.

2 MR. KAUFMAN: He just testified to it.

3 MR. NORTON: I believe he did not. I said, I
4 believe he testified that they combined it with EOI-1098.

5 JUDGE MOORE: I don't recall the previous
6 answer.

7 MR. KAUFMAN: I'm sorry. You're right.

8 BY MR. KAUFMAN:

9 Q Do you know now how the IDVP classified this
10 EOI?

11 A (Witness Jacobson) I believe it is classified
12 as a Closed Item, since it was combined with the other
13 EOI.

14 Q Okay. Thank you.

15 In your testimony, you state that the Diablo
16 Canyon -- DCP quality assurance program did not begin to
17 cover ITP work until August 20, 1982; is that right?

18 A Yes, that's correct.

19 Q It is also stated that safety-related design
20 modifications performed by the DCP from November 1981
21 to August 20, 1982 were performed under the PG&E quality
22 assurance program with PG&E personnel; is that correct?

23 A That's correct.

24 Q Is it also true that Reedy's review of the DCP
25 quality assurance program did not cover the QA program

mgc 16-9 1 in effect prior to August 20, 1982?

2 A Yes. I think they were intending to verify
3 our corrective action program, and a part of that was
4 to see that the QA program that we were going to use
5 for that, which was an expanded program over what we
6 started with, was effective.

7 So they looked at the project program, which
8 had been developed to cover that ongoing work.

9 Q Isn't it a fact that Reedy's organization was
10 specifically instructed not to look at the quality
11 assurance program prior to August 20, 1982?

12 A I don't know. I'm not aware of that.

13 Q Well, it is a fact that the IDVP did not verify
14 that an effective QA program was in effect from November 1981
15 to August 20, 1982; isn't that true?

16 A Well, the IDVP looked at PG&E's QA program in
17 their Phase II review. Some of that work may have been --
18 well, I'm confused. I'd have to look at the ITR. But
19 that's the only source of review that I am aware of.
20
21
22
23
24
25

ki 17:1

1 MR. KAUFMAN: Thank you. I have no further
2 questions.

3 MR. HAVIAN: Mr. Chairman, I know we just had a
4 break a moment ago. In order to expedite my questioning,
5 however, I would like to first of all take a little bit of
6 time to delete from my questioning a number of the areas that
7 the Governor has already gone over sufficiently, and also I
8 would like to take this opportunity to ask the witnesses to
9 please review Governor's Exhibits 35 and 36. Those are the
10 two reports that were not admitted this morning -- just to
11 review them briefly with an eye toward any conclusions in
12 there which would require or would have required corrective
13 action, assuming those conclusions or statements were true.

14 It doesn't have to be in any level of detail,
15 because I'm not going to ask detailed questions about it, but
16 the documents can be skimmed with the exception of those
17 particular sorts of conclusions.

18 JUDGE MOORE: Okay. If Mr. Norton has no objection,
19 I think that's probably a fine idea to speed things along.

20 It would be appreciated if the witnesses would do
21 that. Is 10 minutes sufficient for you?

22 MR. HAVIAN: The limiting factor is really the
23 length of time it would take them to go through. I guess
24 the main difficulty would be, as I understand it, they only
25 have one copy. So as quickly as they can get through it, I

ki 17:2

1 can be ready to go.

2 MR. NORTON: I suspect they can share. I have
3 a copy that I will give two of them, and the other two can
4 share the other copy.

5 MR. HAVIAN: Fine.

6 JUDGE MOORE: Let's take 10 minutes, then.

7 {Recess.}

8 MR. NORTON: Your Honor, we have a stipulation, I
9 think, if I can state it correctly. I think the other parties
10 will agree to it. The Governor's exhibits -- I gave my copy
11 up there -- 35 and 36 -- we're going to stipulate those into
12 evidence, with the understanding that this panel has already
13 testified that they are not familiar with the factual content
14 of those documents, and that we will do one of two things
15 between now and the time of rebuttal. We will either get one
16 or more of the panel members educated on the factual content;
17 they'll go back to PG&E and talk to the people that did it,
18 and so on and so forth, and get educated on the factual content,
19 or we will bring someone else who is, and I don't think there
20 is any objection from any of the parties that that would be
21 somebody that may well not have been previously identified, and
22 that Mr. Havian is not going to examine them on the factual
23 content of those reports at that time.

24 MR. STRUMWASSER: And then we withdraw our subpoena
25 applications.

ki 17:3

1 JUDGE MOORE: Mr. Havian?

2 MR. HAVIAN: Yes, we agree with that.

3 MR. CHANDLER: We agree with that as well.

4 JUDGE MOORE: Fine, gentlemen.

5 MR. NORTON: We should take more and longer breaks.

6 (Laughter.)

7 MR. STRUMWASSER: So are those two exhibits in
8 evidence, Mr. Chairman?

9 JUDGE MOORE: Governor's Exhibits No. 35 and 36
10 are admitted pursuant to the stipulation of counsel, just
11 stated in the record by Mr. Norton.

12 (The documents referred to,
13 previously marked for identifi-
14 cation as Governor's Exhibits
15 Nos. 35 and 36, were received
16 in evidence.)

17 JUDGE MOORE: Mr. Havian, proceed with your
18 cross examination.

19 CROSS EXAMINATION

20 BY MR. HAVIAN:

21 Q Would you please turn to page 2 of your testimony?
22 Which of the panel members is responsible for Answer No. 3?

23 A (Witness De Uriarte) I am.

24 Q Mr. De Uriarte, how did you arrive at the conclu-
25 sion that the causes identified in that answer were, in fact,

ki 17:4

1 the basic causes of the design errors?

2 A How did we arrive -- how did we arrive at the
3 conclusion that these are the basic causes?

4 Q Yes.

5 A I'm not sure why I find that a very difficult
6 question to answer. The look-back review took several months
7 to perform, and each and every piece of it was reviewed by
8 several different tiers of management. And the items that
9 are stated here as basic cause were a consensus opinion.

10 Q I think that gets part way to what I want. I'm
11 really going after the methodology.

12 A Okay. You want to know what did we do in the
13 look-back review? What was our method --

14 Q Not that broad. I want to know what you did when
15 you sat down to decide what are we going to put in this
16 answer? In other words, what things were the basic causes
17 when you decided you had to reach that conclusion. I'm trying
18 to find out what was your methodology after you had gone and
19 gathered the raw data.

20 A As we went through the look-back review -- let
21 me look at this question a second.

22 As we performed the look-back reviews on each
23 service contractor, the group that did the review wrote a
24 preliminary report or an interim report, if you want to use
25 that term. And in each case, they used terminology much like

ki 17:5

1 what you see there, right there in front of you, to describe
2 what they found. In other words, if they were unable to find
3 all of the records they expected to find, they had a statement
4 about record disposition. In summarizing those interim
5 reports into this final report, it was a matter of making sure
6 that I included all of the things that they recorded.

7 If you read the look-back summary, it states that --
8 I would have to get it out. It does a breakdown of the
9 categories that fall into these particular basic causes.

10 Q Mr. De Uriarte, did you do anything to try to
11 take those causes that were identified by the various persons
12 doing the review, and determine whether there might be some
13 even more basic causes underlying the ones that were identified?

14 A Yes, we did. When I referred to the various
15 tiers of management, the look-back review interim reports
16 were reviewed by several members of management, and there were
17 several meetings held on going back through, No. 1, the
18 development of the QA program procedures to identify was a
19 particular control required, and if so, did it appear that
20 the finding represented someone not doing the job properly?

21 And that review went on continually through the
22 look-back review, both on internal work and the service
23 contract work.

24 Q And this was PG&E management that was going through
25 and trying to make this assessment?

ki 17:6

1 A Yes.

2 MR. HAVIAN: Mr. Chairman, I have Joint Intervenors'
3 Exhibit 129 in front of me, and I will give a copy to the
4 panel. Unfortunately, I only have one extra copy.

5 JUDGE MOORE: Joint Intervenors' No. 129 is
6 marked for identification.

7 (The document referred to
8 was marked Joint Intervenors'
9 Exhibit No. 129 for identifica-
10 tion.)

11 MR. HAVIAN: I believe all counsel already have
12 copies of this exhibit that we passed out initially during
13 the proceedings, and I have provided the Board with three
14 copies.

15 MR. NORTON: Excuse me. May I see that document,
16 please?

17 WITNESS SKIDMORE: This is Governor's Exhibit 34,
18 the one we just got.

19 MR. NORTON: It is certainly different than the
20 one I've got in my hand.

21 MR. HAVIAN: I apologize. I handed you the wrong
22 one.

23 (Laughter.)

24 (Documents exchanged.)

25

XXXX

ki 17:7

1 BY MR. HAVIAN:

2 Q Do any of the members of the panel recognize that
3 document?

4 A (Witness De Uriarte) I do.

5 Q Mr. De Uriarte, can you tell me what that document
6 is?

7 A This is the program review report, Phase I, conducted
8 by R. F. Reedy, Incorporated.

9 Q Is that document a true and correct copy, as far
10 as you can tell?

11 MR. NORTON: We'll waive any foundation on this.
12 This is the Reedy early report. We'll waive foundational
13 questions on that.

14 MR. HAVIAN: Fine. I would move that this document
15 be admitted in evidence as Joint Intervenors' Exhibit 129.

16 JUDGE MOORE: Does Staff have any objection?

17 MR. CHANDLER: No, sir.

18 JUDGE MOORE: Governor?

19 MR. KAUFMAN: No.

20 JUDGE MOORE: Joint Intervenors' Exhibit 129 is
21 admitted.

22 (The document previously marked
23 Joint Intervenors' Exhibit No. 129
24 for identification was received
25 in evidence.)

XXXX

ki 17:8

1 MR. HAVIAN:

2 Q Mr. De Uriarte, I direct your attention to page
3 W-3 of Joint Intervenors' Exhibit 129, the last sentence on
4 the page. Can you read that out loud, please?

5 A (Witness De Uriarte) Implementation deficiencies,
6 item 1?

7 Q That's correct.

8 A "PG&E management did not review and assess the
9 effectiveness of the quality assurance program."

10 Q Now, over on page W-4, the second bullet from the
11 top. Can you please read that paragraph?

12 A "Management review committees only reviewed plant
13 operational considerations and experiences from the Humboldt
14 Bay Plant. They did not reivev the QA program for design and
15 construction of the Diablo Canyon Plant."

16 Q Would it be fair to characterize those two con-
17 clusions as stating that management -- lack of management
18 commitment was one of the causes of the design deficiencies
19 discovered by R. F. Reedy?

20 A I'm sorry; I'm going to have to ask you to repeat
21 that.

22 Q Would it be a fair characterization of those
23 two sentences, or the sentences you have just read, that one
24 of the causes of the design deficiencies discovered by
25 Reedy was lack of management commitment?

ki 17:9

1 A I suppose a person could draw that conclusion from
2 reading those two statements.

3 Q Would you draw that conclusion from reading those
4 two statements?

5 A Reading those two statements, without knowing any
6 other information, I might also draw that conclusion.

7 Q Do you believe that that was one of the causes of
8 the design errors discovered at Diablo Canyon?

9 A No, I do not.

10 Q I also presume that the management review that we
11 discussed earlier with respect to Answer No. 3 also concluded
12 that that was not one of the basic causes of the design
13 errors; is that correct?

14 A I'm sorry; I don't know what you mean by
15 "Answer No. 3."

16 Q I mean Answer No. 3 in your testimony where you
17 discuss the basic causes.

18 A Okay. Could you repeat your question?

19 Q Is it also true that the management review that
20 you discussed earlier to determine basic causes likewise
21 concluded that lack of management commitment was not a basic
22 cause for the design errors?

23 A Yes, that's correct.

24 I would like to make a comment about the sentences
25 that I read out of the Reedy report. The Reedy report does

New BU

New BU

ki 17:10

1 not elaborate on its sentences. For instance, the one I
2 read about PG&E management did not review and assess the
3 effectiveness of the quality assurance program; the reason
4 that's there is because it was an undocumented review, and
5 Reedy could not find any evidence that the review took place.

6 However, his interviews of people indicated from
7 every source that, yes, management did review and evaluate the
8 program.

9 Q What do you base that conclusion on?

10 A My involvement in the Reedy review.

11 Q Did Mr. Reedy tell you this directly?

12 A No, sir. I was present at several meetings where
13 this was discussed.

14 Q Did someone else in his organization tell you
15 this?

16 A Tell me what?

17 Q The conclusion that you just reached, that the
18 reason --

19 MR. NORTON: Excuse me, Your Honor. That's twice
20 a statement of fact has been characterized as a conclusion.
21 I think that's a confusion in the question.

22 JUDGE MOORE: Specify it, and we can avoid that
23 problem.

24

25

End 17

mgc 18-11

BY MR. HAVIAN:

2 Q Mr. DeUriarte, you said these statements had
3 to be read in a particular context, correct?

4 A (Witness DeUriarte) Yes, sir.

5 Q And that the reason Mr. Reedy concluded as he did
6 was that there was no documentation of PG&E management
7 involvement; is that correct?

8 A Yes, sir.

9 Q And that the people he interviewed did, in his
10 view, express a commitment to quality assurance; is that
11 correct?

12 A Yes, sir.

13 Q Now what I am asking you is the basis for those
14 conclusions, and you said Mr. Reedy didn't say that to you
15 personally.

16 Did Mr. Reedy state that in a meeting?

17 A Okay. As I recall, there was a meeting with
18 NRC, -and I believe it was held April 1, 1982, in which
19 PG&E was asked to respond to the Reedy report to NRC, and
20 Mr. Reedy was present at that meeting and made several
21 statements. And I believe that if my memory serves me
22 right, that is one incident where he made that statement.
23 Members of his organization who performed the audit also
24 made those statements to me during the review.

25 A (Witness Skidmore) If I may, I would like to

mgc 18-2 1 add something to Mr. DeUriarte's answer.

2 At the meeting, the exit meeting where Reedy
3 was discussing the audit he did on our quality activities
4 prior to June '78, several people were there, both the
5 Reedy people, the project people, including Bechtel, PG&E
6 and several members of the NRC, and we made a comment on
7 this implementation finding, the finding being PG&E
8 management did not review and assess the effectiveness of
9 the quality assurance program.

10 Our comment at that time, which was later expanded
11 upon in an affidavit by Warren Raymond and Charlie Dick,
12 I believe that affidavit was in 1982 --

13 A (Witness Dick) Yes, July.

14 A (Witness Skidmore) -- the comment went that
15 PG&E senior management has always received and reviewed
16 copies of audit reports by this process. The overall
17 quality assurance program has been continuously assessed
18 during both Quality Assurance Department and NRC reports
19 as input.

20 As discussed above, the changes to the policy
21 section of the Quality Assurance Manual required the review
22 and approval of senior management.

23 Further, oral reports regarding the status of the
24 quality assurance program were given to the Quality
25 Assurance Director or given by the Quality Assurance

mgc 18-3

1 Director to the Executive Vice President. At that time,
2 that was Dean Worthington. The report mentions a program
3 review by Energy, Inc. in '75. We submitted that Energy,
4 Inc. review as an important example for senior management
5 review and assessment for functioning.

6 Q Mr. Skidmore, can you tell me what that has to
7 do with what Mr. Reedy concluded? That was simply something
8 that was written by PG&E personnel unilaterally, correct?
9 Am I correct?

10 A Mister --

11 MR. HAVIAN: Will the Board please instruct
12 the witness to answer my question yes or no.

13 MR. NORTON: Which question? He asked three?

14 MR. HAVIAN: I said that was something unilaterally
15 written by PG&E.

16 BY MR. HAVIAN:

17 Q Was it not?

18 A (Witness Skidmore) That's correct.

19 MR. HAVIAN: I would move that Mr. Skidmore's
20 remarks be stricken as non-responsive to my question, which
21 was, does Mr. DeUriarte have any reason to know why
22 Mr. Reedy concluded as he did?

23 Mr. Skidmore's remarks were simply an
24 extemporaneous soliloquy on PG&E's quality assurance
25 program.

mgc 18-4 1

WITNESS SKIDMORE: I was commenting --

2 JUDGE MOORE: Mr. Norton, do you have a response
3 to that?

4 MR. NORTON: No.

5 JUDGE MOORE: I believe in this instance you
6 are right, Mr. Havian, that that remark of the witness
7 will be stricken.

8 Continue, Mr. Havian.

9 BY MR. HAVIAN:

10 Q Does the panel have a copy of Joint Intervenor's
11 Exhibit 128, Draft Working Paper, Case Study C? I
12 distributed to a PG&E panel earlier, and I am afraid I
13 forgot to get it back.

14 JUDGE MOORE: Mr. Havian, would you repeat the
15 exhibit number, please?

16 MR. HAVIAN: Joint Intervenor's Exhibit No. 128.
17 It is for Identification at this point.

18 MR. NORTON: Let me identify for the witnesses
19 what this is. It is Draft Working Paper, Case Study C.

20 I assume, Your Honor, this is not the latest
21 one.

22 Mr. Havian, you haven't substituted the latest
23 draft?

24 MR. HAVIAN: No, that's correct.

25 JUDGE MOORE: I'm sorry, Mr. Norton. I can't

mgc 18-5 1 hear you.

2 MR.? NORTON: I had asked if they had substituted
3 the latest draft, and they have not.

4 BY MR. HAVIAN:

5 Q Does the panel have a copy of that document?

6 A (Witness Skidmore) Yes, I do.

7 Q Mr. DeUriarte, I would like you to look at
8 Page 6 of that document, please.

9 A (Witness DeUriarte) Right.

10 Q Can you read from the first paragraph, about
11 a little more than halfway down, starting from, "A
12 contributing factor..."?

13 A How much of it do you want me to read?

14 Q To the end of the paragraph, please.

15 A "A contributing factor may have been that many
16 of the licensee's top management had come out of the
17 engineering function. They had confidence in it and did
18 not impose the management controls required by the nuclear
19 process. Their attitude seemed to be that the engineering
20 organization was comprised of professionals capable of
21 doing what is right without overlaying a quality assurance
22 program on them."

23 Q Mr. DeUriarte, do you believe that that statement
24 can fairly be characterized as stating that management did
25 not have a sufficient commitment to quality assurance?

mgc 18-61

A I do not agree that management did not have a --

Q No. I asked you, is that a fair characterization of what you just read?

MR. NORTON: Excuse me. Is what a fair characterization, Your Honor?

MR. HAVIAN: What I asked him originally.

JUDGE MOORE: His prior statement, Mr. Norton.

But repeat it again, so that the witness understands.

BY MR. HAVIAN:

Q Is it a fair characterization of the passage you just read that PG&E management did not have a sufficient commitment to quality assurance? Is that a fair characterization?

A (Witness DeUriarte) I suppose it could be.

Q Do you have an alternative characterization that you think is more accurate?

A Well, first of all, I don't know what it is speaking about. The sentence starts, "A contributing factor may have been..."

I have to read the rest of the paragraph to know what the factor is that he is dealing with.

Q If I told you that that sentence was referring to a factor for the design quality assurance deficiencies discovered at Diablo Canyon, and asked you the same question

mgc 18-71

about the characterization, is that a fair characterization of this passage?

MR. NORTON: Excuse me. Is that a question?

JUDGE MOORE: I think it was, Mr. Norton. I think the witness can understand it.

WITNESS DE URIARTE: Reading only the passage, I believe that I would agree with you.

BY MR. HAVIAN:

Q Are you familiar with the Case Study C team that went from the NRC Staff, that went to Diablo Canyon to prepare this report?

A (Witness DeUriarte) Am I familiar with the team? Do you mean, do I know about the study, or do I know the team members?

Q Why don't you answer those questions one at a time?

A I don't know any of the team members. I do know that the study took place.

Q How familiar are you with the study?

A Not familiar at all.

Q Does your familiarity go beyond the fact that you knew it was done?

A No.

Q I think you have already answered the question of whether you agree with the conclusion or not. I take it you do not agree with this conclusion?

mgc 18-8 :

A No, I do not.

Q Assuming that conclusion were true hypothetically --

MR. NORTON: Excuse me, Your Honor. What conclusion are we talking about now?

MR. HAVIAN: The one he just said he didn't agree with.

MR. NORTON: And which conclusion was that, Your Honor. He keeps saying "conclusion," but I don't see a conclusion.

JUDGE MOORE: For completeness' sake, Mr. Havian, repeat it.

MR. HAVIAN: The conclusion that PG&E management was not sufficiently committed to quality assurance.

MR. NORTON: Your Honor, may I ask where that conclusion is set forth in the report? That's my problem.

MR. HAVIAN: Mr. Chairman, the witness agreed that that was a fair characterization of the passage he read, which was in the report.

JUDGE NORTON: Give Mr. Norton the page once again, please.

MR. HAVIAN: Page 6, Mr. Norton.

MR. NORTON: Your Honor, my problem is, it says "may have been." That is just a possible interpretation of that. That is Mr. Havian's conclusion. The words of an exhibit speak for themselves.

mgc 18-9 1

JUDGE MOORE: Mr. Norton, the witness agreed both with -- after having read it -- with the characterization in the report and with Mr. Havian's characterization that it was a fair characterization, I believe.

MR. NORTON: That's not a conclusion, Your Honor. That's my problem. The report -- there is no conclusion there at all. But this may be, and that may be.

JUDGE MOORE: Your objection is his use of the word "conclusion"?

MR. NORTON: That's right.

MR. HAVIAN: Fine. I will make Mr. Norton feel better and use the word "statement."

BY MR. HAVIAN:

Q Let's assume hypothetically that that statement is true. Is it possible that PG&E's lack -- PG&E's management's lack of commitment to quality assurance could be an underlying cause of the causes that you set forth in Answer No. 3, if it were true?

A (Witness DeUriarte) No, I don't believe so, because again we found that the problems existed in the interface between seismic design consultants and PG&E Engineer Design Groups. There was not a similar problem found with internal design interfaces, nor with non-seismic design groups.

If management control -- or management attention

mgc 18-101

was a basic cause, I believe the discrepancies or deficiencies would have been found in all areas.

Q You don't believe -- do you believe it's possible that in the other areas, the individuals who were closer to the work were simply more attentive to quality assurance matters?

A No, sir, I don't believe that.

Q Is there a basis for your belief?

A I believe that the company assigned the very best people they had to the nuclear and to the seismic area, and I don't believe that your characterization of individuals having more motivation or more sense of responsibility is accurate.

Q Am I to understand from that answer that the people who were in non-seismic were less capable, since you said the people in seismic were the most capable?

A No, sir. That's not what I said.

MR. HAVIAN: Could have the Reporter read back his last answer, please?

JUDGE MOORE: For what purpose, Mr. Havian?

MR. HAVIAN: He said that was not his prior answer. I believe it was.

MR. NORTON: Excuse me, Your Honor --

JUDGE MOORE: That was characterization. There is no need to read it back.

Continue.

ki 19:1

1 BY MR. HAVIAN:

2 Q Could you please turn to page 5 of your testimony,
3 Answer No. 5? Can you please read that; just to yourself is
4 fine.

5 Mr. De Uriarte?

6 A (Witness De Uriarte) Yes?

7 Q It says in lines 19 through 21, "These basic
8 causes were not strictly related to design quality assurance,
9 but were factors related to the design engineering process.

10 Now, the conclusions, or rather the basic causes
11 identified on page 3 of your testimony, were related to
12 quality assurance. Isn't that correct?

13 A Yes, sir.

14 Q So isn't it correct that, as a result, or as
15 basic causes of one set of design errors, you actually found
16 two separate sets of causes, one relating to engineering,
17 and one relating to quality assurance?

18 A I believe the Section 1.8 of PG&E's Phase I final
19 report offers several possible factors. As I read this, it
20 says, "These basic causes -- excuse me, I am misreading.

21 You will have to state your question again.

22 Q Isn't it true that your testimony essentially
23 states that the design errors uncovered were the result of
24 two separate groups of basic causes, one set related to
25 quality assurance, and another set related to engineering?

ki 19:2

1 A Related to technical issues other than quality
2 issues, yes.

3 Q I would like you to turn to page 9 of your
4 testimony, PG&E -- isn't it true that PG&E had a quality
5 assurance program already in place as of November 1981 which
6 was approved by the NRC?

7 A Yes, that's correct.

8 Q Do you believe that program was adequate?

9 A Yes, I do.

10 Q Isn't it also true that Bechtel Power Corporation
11 and PG&E are both members of the Diablo Canyon Project?

12 A Yes, that's correct.

13 Q Why was the decision made to -- strike that.

14 Isn't it also true that the DCP decided not to use
15 PG&E's quality assurance program?

16 A As I recall, and I was not part of the meetings
17 where that decision was made, but as I recall, the reason
18 for using the Bechtel topical report and their nuclear
19 quality assurance manual as the upper tier document, and using
20 the PG&E engineering department manual as one of the lower
21 tier documents was a decision based on the amount of time
22 that it would take to get people acclimated to different
23 sets of procedures.

24 So a mix was decided on.

25 Q Isn't it true that there were members from both

1 organizations which comprised the DCP?

2 A That's correct.

3 Q So wasn't it going to be inevitable that members
4 from either PG&E or Bechtel would have to become accustomed
5 to the other's quality assurance program, depending on which
6 one you chose?

7 Maybe Mr. Dick would like to answer that.

8 A (Witness Dick) I would like to comment, yes.

9 Your comment is correct, Mr. Havian, but the
10 decision that was made was a judgment call, you might say.
11 On the one hand, we had the PG&E program which managements
12 of both companies felt was adequate, and for the reasons
13 Mr. De Uriarte indicated were valid.

14 On the other hand, we had the Bechtel program
15 which was a topical program which had been accepted by the
16 NRC. It was based on proven concepts, had been used elsewhere.
17 Further, the joint project was to be essentially under
18 Bechtel management for completion of the work.

19 And it was the judgment of the managements of
20 both companies that the best course to pursue would be to
21 adopt the Bechtel topical quality assurance program.

22 Now, within that umbrella, we decided that we would
23 also use the PG&E engineering procedures. Those procedures
24 were modified slightly in order to reflect different
25 organizational matters and to adapt to the unique features

1 of the requirements of the Bechtel program. So we really
2 had a combination of the two. But throughout, there was no
3 consideration -- I mean, there was no conclusion reached,
4 nor should there be any implication that we felt the PG&E
5 quality assurance program was inadequate.

6 Q Mr. Dick, I would like to follow up on a couple
7 of those reasons. As I heard you, in your discussion of
8 Bechtel's program, you said there were basically three factors
9 that I heard: (1) it had been accepted by the NRC; (2) it
10 was based on proven concepts; and (3) Bechtel was going to
11 be the head of the project's completion team.

12 A Yes, sir.

13 Q Is that a fair summary of what you had said?

14 A Yes, sir; those were major considerations.

15 Q Let me go through those. Wasn't it also true that
16 PG&E's QA program had also been accepted by the NRC?

17 A Yes, it was.

18 Q Is it also true that PG&E's QA program was based
19 on proven concepts?

20 A We believe it was, but we felt that at the time,
21 that the Bechtel program would have better acceptance,
22 considering the circumstances under which the project was
23 formed.

24 We felt the program -- using the Bechtel program
25 would be more readily accepted.

ki 19:5

1 Q Would you please expand on what you said by
2 consider the circumstances under which the project was formed?

3 A Well, the license had been suspended, and the
4 quality assurance activities of Diablo Canyon Project was
5 suspect. It's a matter of record.

6 It was a question of the environment in which we
7 were operating at that time, is what I am trying to communicate
8 to you.

9 Q I would like you to turn to -- I guess for you,
10 Mr. Dick, this question would be then -- Joint Intervenors'
11 Exhibit 128.

12 A What is that?

13 Q Case Study C, Draft Case Study C.

14 A I have one version of this. I'm not sure it's
15 the same as yours, so please bear with me.

16 A (Witness Skidmore) Are you talking about the one
17 dated August 2nd, this year?

18 Q There's a cover letter dated September 2, which
19 covers the entire document, and then the actual working paper
20 itself is dated July 1983.

21 A (Witness Dick) Mine is the more recent version,
22 but I'll try to work with yours.

23 Q I don't think the more recent version is going to
24 work very well, Mr. Dick.

25 JUDGE MOORE: Would you provide the witness --

ki 19:6

1 MR. HAVIAN: Mr. Chairman, I only have one copy.
2 I understood the panel did have a copy.

3 WITNESS SKIDMORE: I loaned him my copy.

4 WITNESS DICK: I may have it here, yes. Which
5 page, sir?

6 BY MR. HAVIAN:

7 Q Page 7.

8 A (Witness Dick) I have it.

9 Q Will you please read from the top of the page,
10 secondary root causes, and read through the first two sentences
11 following that phrase?

12 A This is item 2A?

13 Q Yes, starting with the number 2.

14 A "Failure to understand --

15 MR. NORTON: Excuse me, Your Honor. He has now
16 got him starting in the middle of a sentence.

17 MR. HAVIAN: I asked him to start with the number
18 2.

19 JUDGE MOORE: That's correct, Mr. Norton.

20 MR. NORTON: Fine.

21 BY MR. HAVIAN:

22 Q Mr. Dick, start with the word "Secondary."

23 A (Witness Dick) "Secondary root causes included
24 the following: Item A: Failure to understand and appreciate
25 the potential merit of a formal institutionalized QA program.

ki 19:7

1 This is borne out, in part, by the fact that the project
2 completion team adopted the AE's quality assurance program,
3 even though they were concerned about imposing a new system
4 on the project at a late date. (The Licensee's procedures
5 were maintained, however.)"

6 Q All right, Mr. Dick, assuming that the AE referred
7 to there is Bechtel --

8 A Yes.

9 Q And that the Licensee is PG&E, do you agree with
10 the conclusion that this was the reason why Bechtel's quality
11 assurance program was imposed?

12 A Absolutely not.

13 Q Gentlemen, I would like to direct your attention
14 to page 10 of your testimony, lines 5 through 10. Please
15 tell me which one of you can address the statements contained
16 in that passage.

17 A Could you reference the lines again, please?

18 Q Lines 5 through 10.

19 A (Witness Jacobson) I believe I can address those

20 Q Mr. Jacobson, are you familiar with the Reedy
21 audit of the DCP QA program?

22 A Yes, I am.

23 Q And isn't it true that Mr. Reedy found that as of
24 early December 1982, the DCP QA program had not yet been
25 fully implemented?

ki 19:8

1 A No, I would not agree with that. As I recall, the
2 conclusions of the report that Mr. Reedy issued were that the
3 DCP had a sound QA program which was effectively implemented.

4 Q Did Mr. Reedy find any discrepancies in the DCP QA
5 program?

6 A He did not find anything that he categorized as a
7 finding. He did find 24 conditions, I believe they were
8 referred to, that required further work.

9 Q And didn't he conclude that those 24 conditions
10 had occurred because the QA program had not yet been fully
11 implemented?

12 A That's not my understanding of the conclusion of
13 the report. I think what was said was, the report was fairly
14 early in the project, and the things that were found were
15 due to incomplete documentation or things that were being
16 worked on, and really hadn't had a chance to be completed yet.

End 19

mgc 20-1 1

Q Can you please explain to me how that is
different from the program not yet being fully implemented?

A I think that the work was in progress, and I
think that if Mr. Reedy had concluded that the program was
not fully implemented, then the conclusions of the report
would have said that, rather than saying that it was
effectively implemented.

Q Didn't he really say it was effectively implemented
as far as it had gone, but that it was too early for it to
have been implemented fully?

MR. NORTON: Excuse me, Your Honor. Are we
referring to an exhibit or what? Or are we arguing with the
witness?

MR. HAVIAN: We can go to the ITR. It's going
to take a little while. I can pull it out. Frankly, I'm
surprised by his answer.

JUDGE MOORE: Go ahead and do it.

MR. HAVIAN: Do you want to take five minutes
here or even two minutes?

JUDGE BUCK: What ITR is it?

MR. HAVIAN: ITR-41.

JUDGE MOORE: We will just wait in place.

BY MR. HAVIAN:

Q Mr. Jacobson, do you have ITR-41?

A (Witness Jacobson) Yes, I do.

mgc 20-21

Q Will you turn to Page 2 of that ITR?

A Okay.

Q The first paragraph, which is not a full paragraph, on the page.

A Yes?

Q Can you read the last sentence of that paragraph?

A "These conditions were determined to be due to incomplete documentation because this audit was performed in the early stages of the DCP QA program implementation."

Q Is it a fair characterization of that statement to say that Mr. Reedy concluded that the DCP QA program was not yet fully implemented?

A I would not characterize it that way.

A (Witness Dick) I think -- may I add to Mr. Jacobson's response, please?

Q Mr. Dick, I think I am satisfied with his response as it is.

A I don't think it's complete.

Q Mr. Jacobson can inform me, if that is his belief, but I want to move on.

JUDGE MOORE: Continue, Mr. Havian.

BY MR. HAVIAN:

Q Gentlemen, Page 11 of your testimony, who will speak to Answer No. 4?

A (Witness Dick) I will try it.

mgc 2-3 1

Q Mr. Dick, would you please tell me what you mean when you say, "A significant majority of the safety-related work performed by the ITP was performed under the DCP QA program"?

What I want you to tell me is, what do you mean by the words "a significant majority"?

A Well, it's very difficult to measure how much -- it's very difficult to measure quantities of engineering. There are various measures in terms of documents or man-hours or even dollars, if you wish to measure it that way.

The thrust of our statement here was to indicate that far and away the greatest part of the safety--related work being performed under the -- as part of the ITP, was done under the project program. Some people might quantify that as something on the order of 80 or so percent, maybe more.

Q Do you believe, just taking your numbers hypothetically then, do you believe that the remaining 20 percent of the safety-related work which was not done under the DCP QA program would be considered insignificant?

A No, sir. However, I hasten to add that that work was done under what we regard as an adequate and functioning program, which, as we also indicated in our testimony, was that PG&E program.

Q Was there a sort of transition period between the

mgc 2-4

1 PG&E program, if you will, backing out and the DCP program
2 coming on line? In other words, I understand that on
3 August 20th, the DCP QA program was formally put into
4 effect.

5 A Yes, sir.

6 Q Was there a transition period put in there
7 somewhere?

8 A No. One day we were functioning under one
9 program, and the next day the other program was functional.

10 A (Witness Jacobson) I would like to supplement
11 that a little bit.

12 Q Go ahead.

13 A There was, of course, a period when the procedures
14 that would be used for Diablo Canyon were being prepared,
15 reviewed and approved, and that all went on in the period
16 prior to August 20th. So in that sense, there was a time
17 period, as the requirements were being assembled and
18 approved.

19 Q Can you tell me what the range of that time
20 period was in terms of dates?

21 A Probably starting from about May of '82.

22 Q May of '82 until August 20th?

23 A Yes.

24 Q If any corrective action regarding PG&E's
25 quality assurance program had been taken in the past year

mgc 20-5 1 of a significant nature, would any of the members of the
2 panel be aware of that?

3 JUDGE JOHNSON: I have a problem with your
4 question, Mr. Havian. You used the words "corrective
5 action." "Corrective action" has a specific meaning here.

6 Are you talking about corrections taken in the
7 quality assurance program or corrective action covered by the
8 PG&E quality assurance program?

9 MR. HAVIAN: The former, Dr. Johnson, corrections
10 made to the program or its implementation.

11 JUDGE JOHNSON: Okay.

12 MR. NORTON: Excuse me. All of a sudden now we
13 are talking about corrections made to the program as opposed
14 to -- does that include improvements to the program which
15 are -- maybe you might consider them corrections, but
16 correction implies that there was something incorrect, as
17 opposed to something that is improved upon.

18 JUDGE MOORE: Is that an objection to the form
19 of the question?

20 MR. NORTON: It's asking for a clarification,
21 because we now have the word "corrections." It was
22 Dr. Johnson's request for clarification.

23 MR. HAVIAN: Let's just start, then, with
24 modifications.
25

mgc 20-6 1

BY MR. HAVIAN:

2 Q Would any of you know, have there been any
3 significant modifications to PG&E's QA program in the
4 past year?

5 A (Witness Skidmore) Yes.

6 Q Mr. Skidmore, you would know?

7 A Yes.

8 Q And have there been any significant modifications
9 to PG&E's QA program during the past year?

10 A Yes.

11 Q Can you tell me what they have been?

12 A One thing I mentioned earlier, as we began our
13 testimony today, was a change in the reporting line of the
14 Manager of Quality Assurance from what exists right now,
15 as I explained again. That's a change in a technical
16 specification, so that change has to await approval by the
17 NRC.

18 Q Excuse me. So that change hasn't yet taken
19 effect; is that correct?

20 A The appropriate documents to effect that change
21 are waiting -- we are waiting for approval of the tech
22 spec changes. So things don't happen instantaneously,
23 okay, but the paperwork to effect that is there, and that
24 is the change in reporting from the Vice President, Nuclear
25 Power Generation to the Executive Vice President, Facilities,

mgc 20-7 1

Resources and Development. That is a substantial change.

2 Q And I know that your answer is not complete yet,
3 but let's take it one step at a time.

4 What prompted that change?

5 A I believe it was -- well, let me lay some
6 background.

7 Q Make it brief, please, Mr. Skidmore.

8 A All right. This would be the fourth change in
9 reporting over the history of the QA program. It started
10 off reporting to an Executive Vice President and later
11 to the President, then to a Vice President and again to
12 a different Executive Vice President. It is a part of
13 reflecting how QA is being implemented in the company as to
14 both nuclear and non-nuclear projects. It's the way the
15 organization has evolved internally and the people assigned
16 to various functional positions within the company.

17 Q Okay. As I understand it, what you have told
18 me is essentially that the process has evolved, and you
19 have described how it has evolved, and I am really asking
20 you, why has it evolved?

21 A Because a quality assurance program is a
22 dynamic evolving program by its very nature. It adjusts
23 to meet the demands that are placed on it, to meet the
24 requirements of Appendix B for a nuclear power plant.

25 Q Do you believe that prior to the change that

mgc 20-8 1 you just described, the program did not meet the requirements
2 of Appendix B?

3 A No, I don't agree with that.

4 Q Why did you make this specific change?

5 A I think it is a further strengthening. It is
6 a line demonstrating an increased level of commitment to a
7 person, Mr. George Maneatis, who has essentially assumed
8 the position of Project Manager for this entire effort.
9 It reflected a change of line authority for Mr. Maneatis'
10 reporting for Diablo Canyon purposes directly to the
11 Chairman of the Board. It's a very substantial difference.

12 Q Why wasn't this demonstration of commitment made
13 two years ago, after the discovery of the design errors and
14 quality assurance deficiencies?

15 A At that time, after the look-back reviews were
16 done and the Bechtel PG&E project was formed, a design
17 effort was placed, of course, in the Diablo Canyon project
18 under the Bechtel program, as discussed by Mr. Dick.

19 Consideration was then given internally as to
20 what to do for the future implementation of the program,
21 once the design effort came back from the integrated project,
22 back in the PG&E throes.

23 In other words, it takes time to make these
24 changes and decisions, and we had a viable, effective means,
25 and so we had time to consider what the appropriate line

mgc 20-9 1 of reporting should be.

2 Q You considered the old system, prior to this
3 change you have described, then, to be adequate, and this
4 change was, if you will, further assurance. It wasn't
5 necessary but desirable.

6 A Further strengthening is the way I characterized
7 it.

8 Q Have there been any other significant changes or
9 modifications to the QA -- to PG&E's QA program or its
10 implementation in the past year?

11 A In the past Year? Well, I can speak most
12 specifically about the ones since last May. At this time
13 there is a Quality Task Force that is comprised of members
14 from the affected departments that have responsibilities
15 under the PG&E QA program to once again sit down and
16 review, in light of the design, quality assurance, quality
17 control concerns that we are discussing this very day -- what
18 should be done to preclude further reoccurrence of this
19 situation in the future. And that body is meeting now
20 under a charter approved by the affected Vice Presidents.

21 Q You said "this situation." What did you mean by
22 "this situation"?

23 A Well, we are here to litigate deficiencies
24 in design quality assurance, and I am talking about, what
25 do you do for the future to let the program evolve to

mgc 20-10 1

2 preclude the occurrence of that, which is right in line
3 with complying with Appendix B.

4 Q So you essentially have somebody studying the
5 problems, is what you are saying; is that correct?

6 A A group of people, yes.

7 Q Are there any other modifications in the past
8 year of which you are aware that are significant?

9 A The ones -- the significance of them is being
10 determined at this point in time, so that's what I have
11 in mind at this point.

12 Q Mr. DeUriarte, do you have anything to add?

13 A (Witness DeUriarte) No, I don't.

14 Q Would you be familiar -- Mr. Skidmore said he
15 would be most familiar with modifications since May of
16 this year.

17 Would you be familiar with any significant
18 modifications which occurred prior to May?

19 A Yes, I would. There were no others.
20
21
22
23
24
25

S2BU

T21 MM/mm 1

Q Thank you.

2 I would like you to turn to Governor's Exhibit 34.

3 A (Witness Dick) Would you identify that subject,
4 please?

5 Q As soon as you find it, Mr. Dick, I will.

6 Okay, it is Look Back Summary.

7 A (Witness Skidmore) Excuse me, are we talking about
8 the one, the internal Look Back Review?9 Q Yes. It should be marked on the cover of your
10 copy as Governor's Exhibit No. 34.11 A I don't have a copy that has that marked on it.
12 Is that the one that --13 Q It is dated November 2, 1982, with a cover letter
14 from Mr. DeUriarte to Mr. Raymond.15 MR. NORTON: I think you have it. The second
16 page is the report itself dated October 22, 1982.

17 WITNESS SKIDMORE: That is correct.

18 BY MR. HAVIAN:

19 Q Mr. DeUriarte, would you please turn to page
20 5, number one. I believe we went over that this morning.

21 A (Witness DeUriarte) Yes.

22 Q Did you establish the root cause of this deficiency?

23 A This is the problem concerning implementation of
24 the requirement to apply quality assurance requirements to
25 design consultants?

mm2

1 Q That's correct.

2 Let me ask the question a little differently.
3 Strike the last question.

4 The last sentence of the first paragraph, number one,
5 says, "Consultants were somehow not included as suppliers of
6 nuclear safety related 'services'."

7 Does use of that word somehow imply that you did
8 not ascertain the root cause of this deficiency?

9 A I believe we concluded it was an evolving
10 situation. The project started with all work totally being
11 done in house. And, as the project broadened with further
12 requirements and further industry standards being issued,
13 we began to use some consultants to assist in the design work.
14 At that time those consultants were used primarily to offer
15 consultation, give opinions of criteria, but did not work
16 that ended up to a finished drawing issued to the field. So,
17 they were not producing a design product.

18 As the use of consultants expanded some design
19 consultants started being given pieces of the design work.
20 Many times it was not clear in our Look Back Review at what
21 point the consultants started going from the consultant
22 phase to the designer phase. And, in going through the files
23 of some of those contracts, we found some contracts were
24 identified by the responsible engineer, or the engineer
25 administering the contract, that the scope of work for his

mm3

1 consultant, had gone beyond what he originally started with,
2 and he then applied the requirements for quality assurance
3 program to the design consultant.

4 In other cases, that was never identified. And
5 when we say "somehow" in this sentence, I guess in the
6 summary we were trying to avoid going through a lengthy
7 discussion of all the different variations of that that we
8 ran across.

9 Q So, is your answer you really were unable to
10 establish a particular cause of this failure?

11 A Well, the cause was attributable to several
12 different things; one of them being the length of time
13 involved--we are talking about several years here, where a
14 contract was ongoing, a consultant was doing one piece of
15 work as a consultant or an adviser, and later work was
16 added to that contract for him to then help out on some
17 work.

18 And then later, he was asked to just do part of
19 the work.

20 Again, in some areas of the plant -- and I am
21 sorry I can't give you a specific example because I just
22 don't remember them, requirements were changing and work
23 had to be redone, and in redoing it you would then seek
24 extra bodies to help out.

25 Q Did it ever occur to you that this may have been

mm4

1 caused by a lack of commitment to quality assurance?

2 A No, sir.

3 Q You never thought about that as a possibility?

4 A No, sir. As I said, the engineers who realized
5 that their contracts had reached that stage, did request
6 that their contracts be changed.

7 Another thing that we ran across was several
8 contracts involved several different departments. And a
9 piece of work assigned by one department, say the mechanical
10 piping group as an example, may have been given to a contractor
11 who was specifically doing, or who was originally doing Civil
12 work. And the Civil person was acting as the interface
13 and was not aware of some of the assignments that had been
14 made. And again this goes back to what we identified as
15 interface control.

16 Q And you don't think it is possible that the cause
17 of that situation occurring was a lack of management
18 commitment to quality assurance?

19 A No, I don't.

20 Q Will you please turn to Joint Intervenor's Exhibit
21 129, again? That is the Reedy Report.

22 A All right.

23 Q As I understood your earlier testimony you said
24 that Mr. Reedy made the statements appearing at the bottom
25 of page 3 and the top of page 4, because there was

mm5

1 insufficient documentation?

2 A Yes.

3 Q Is it your belief that Mr. Reedy included these
4 statements in this report in spite of the fact that he
5 did not believe that they were true?

6 A He included them because as an auditor, he has to
7 base his conclusion on objective evidence.

8 Q Wouldn't it have been possible for him to say
9 that there was no documentation that management did review
10 the effectiveness of the quality assurance program?

11 Couldn't he have said that?

12 A I believe he could have.

13 Q Do you know why he didn't say that, if that was
14 his intent?

15 A I believe you would have to ask him. I believe
16 he said that on April 1, 1982 when he appeared in the
17 meeting I referred to before.

18 Q What was his explanation?

19 A I don't recall.

20 Q Does anyone else on the panel recall Mr. Reedy's
21 explanation at that time?

22 A (Witness Dick) Would you be a little more
23 specific, Mr. Havian, I may be able to help you.

24 Q I am afraid it is Mr. DeUriarte's conversation,
25 and I am really not --

mm6

1 MR. NORTON: Excuse me, your Honor. He said
2 does anyone else on the panel know about the reasons for
3 that conversation.

4 MR. HAVIAN: No, I asked him is anyone else
5 familiar with what Mr. Reedy said in that conversation.

6 JUDGE BUCK: I thought this was a meeting?

7 MR. NORTON: It was, it is an NRC transcript.

8 MR. HAVIAN: I'm sorry, in that meeting.

9 JUDGE MOORE: Gentlemen, we can't all talk at once,
10 even though we are trying very hard to do that.

11 Mr. Dick, would you go ahead and attempt to
12 respond to the question.

13 BY MR. HAVIAN:

14 Q Mr. Dick, let me just ask you preliminarily --
15 unless you are about to address the specific meeting to
16 which Mr. DeUriarte referred, I don't want you to respond.

17 A (Witness Dick) I am going to address the meeting
18 of April 1, 1982 when Mr. Reedy made certain statements.

19 Q Fine.

20 A I have a statement here which I believe is
21 relevant, but I wanted to be sure before I took the time of
22 the group.

23 Q Let's take a second.

24 Mr. DeUriarte, is this the meeting to which you
25 were referring?

mm7

1 A (Witness DeUriarte) Yes, it is. Mr. Dick, I
2 believe, was there also.

3 Q Go ahead Mr. Dick.

4 A (Witness Dick) Mr. Reedy, when questioned about
5 some of his findings, and in that meeting, made the following
6 statement which appears in our affidavit of July of 1982.

7 He said, "I have to agree with you that the strict
8 interpretation that we used was completely unfair. The order
9 to me, did not seem to be fair to begin with and I made a
10 comment at the time that the evaluation should be done to the
11 criteria that was in use at the time this ~~hrpgra~~, was
12 accepted by the N C and audited by the NRC. But, we did not
13 go back and say we will accept what the NRC audited, or
14 whether they accepted it. We will use the criteria in the
15 order. Now I don't think that was fair, but that is what we
16 did."

17 And that appears in the transcript.

18 Q Mr. Dick, doesn't that refer to the strict
19 interpretation of the requirements of 10 CFR Part 50,
20 Appendix B?

21 A I am sure it includes that, and the interpretations
22 thereof.

23 Q Is the degree of management involvement in quality
24 assurance something which has changed during the past
25 ten years as it is required by 10 CFR Part 50, Appendix B?

mm8

1 A I think expectations of management involvement
2 have changed, yes.

3 Q And you think Mr. Reedy was reviewing this
4 particular aspect, if you will, management commitment,
5 according to current standards only? Is that true?

6 A I believe he was influenced by current standards,
7 yes. The degree to which he was influenced, you will have
8 to ask him.

9 A (Witness DeUriarte) Mr. Havian, I have another
10 quote from this same document.

11 Q This same document -- is this a transcript, or
12 is this an affidavit?

13 A (Witness Dick) It is an affidavit, sir.

14 MR. NORTON: Which is quoting from the transcript.

15 WITNESS DICK: It is an attachment to an
16 affidavit which has been submitted in evidence.

17 BY MR. HAVIAN:

18 Q Is that what you are about to read from,
19 Mr. DeUriarte?

20 A (Witness DeUriarte) It is the same one which
21 Mr. Dick had.

22 Q Could you please identify the transcript that you
23 are reading?

24 MR. NORTON: I believe he testified he is reading
25 from an affidavit which quotes the transcript of April 1,

mm9

1 1982, which was a transcribed meeting before the NRC.

2 MR. HAVIAN: I am asking him to identify --

3 WITNESS DE URIARTE: I don't have a cover sheet.

4 BY MR. HAVIAN:

5 Q Can you tell me what the identification is of
6 the transcript being quoted here? There is a transcript which
7 is about to be quoted. I would like it identified.

8 A (Witness Dick) It is a transcript of the meeting
9 of April 1, 1982.

10 Q Do you have a copy of the transcript? Mr. Norton?

11 A Not the full copy. No. I have excerpts which
12 we quoted in our affidavit of July 1982.

13 Q Go ahead, Mr. DeUriarte.

14 A (Witness DeUriarte) I also have only a part of it.
15 These are Mr. Reedy's words. He satated: "We felt that our
16 work could be audited by anyone, and the only way you could
17 audit what we did and conclusions that we drew was on the
18 basis of controlled documented evidence. piece of paper
19 pulled out of someone's file that shows a certain bit of
20 information to me is not a controlled document, and we
21 based our conclusions and things in the report on those
22 documents that were officially controlled."

23 Q Do you believe that it is possible to reach any
24 conclusions at all about management commitment to quality
25 assurance solely from controlled documents?

mm10

1 A Yes, I do.

2 Q Can you explain to me how that can be possible?

3 A Well, we showed Mr. Reedy the fact that our
4 distribution of audits all went to members of management.
5 They go to all the senior levels of management of all the
6 departments.

7 He did not accept that as evidence that management
8 had read and reviewed those audits, and as an auditor I would
9 have to agree with him, there was no evidence, there was
10 no signed copies by them that yes, I received this and I have
11 read it. That was what he was looking for.

12 And I think the answer to your question is yes,
13 if you find proper documented evidence you can determine
14 that.

15 Q Yet, Mr. Reedy didn't put any of the statements
16 that you just attributed to him in his final report, did he?

17 A No, he did not.

18 JUDGE JOHNSON: Mr. Havian, there may be some
19 misunderstanding here.

20 In the portions of the Reedy Report which you are
21 using as a basis for your cross examination, in particular
22 PG&E management did not review and assess the effectiveness
23 of the quality assurance program, I think that is the one
24 item that has formed the basis of most of this, and that is
25 not a commitment statement, that is a review and assess

mm11 1 statement.

2 Now to me, my understanding of quality assurance,
3 when someone, PG&E management or me or whoever, who
4 reviews and assesses something in the context of quality
5 assurance, that should be documented.

6 What the gentlemen, the witnesses have been saying
7 is that Mr. Reedy's inclusion of this was because there
8 was no documentation of that.

9 But, you keep using the words "management
10 commitment," and there isn't any in this particular
11 statement which I thought was what we were talking about.
12 "Review and assess" is there as a failing, but I don't see
13 any commitment in that particular statement.

14 MR. HAVIAN: Dr. Johnson, I used that term
15 because again when I originally read those statements I
16 asked the witness if that was a fair characterization of
17 those statements, that there was a lack of commitment by
18 PG&E management to quality assurance, and the witness said
19 based on those statements, yes, that was a fair characteriza-
20 tion.

21 JUDGE JOHNSON: I was not aware -- you had talked
22 about other documents and characterizations of statements
23 in other documents which were characterized as commitments,
24 but I don't recall this particular one being set up as a
25 commitment document. I may be wrong.

MR. HAVIAN: I think the transcript will reflect that.

end 21

ki 22:L

1 I'm going to move on in any event.

2 BY MR. HAVIAN:

3 Q Is it permissible -- I forget which one of the
4 panel members testified about this particular subject but --

5 JUDGE MOORE: Excuse me, Mr. Havian. Before you
6 move on, in light of the fact I think I'm not the only one
7 who is excessively warm, it might be wise to take a break.

8 But could you tell us how much longer your ques-
9 tioning will be? If it's just going to be a few minutes,
10 we can probably --

11 MR. HAVIAN: No, I think it will be substantially
12 longer than a few minutes.

13 JUDGE MOORE: Let's take a short break, ten
14 minutes, and then get right back.

15 (Recess.)

16 JUDGE MOORE: Back on the record.

17 Mr. Havian, proceed.

18 BY MR. HAVIAN:

19 Q I have a few other questions about Governor's
20 Exhibit 34, the look-back summary. Would you please turn
21 to page 6, conclusion 4?

22 MR. De Uriarte, could you tell me if you
23 established the root cause of this deficiency?

24 A (Witness De Uriarte) This deals with the memos
25 and documents that were issued in the various discipline

ki 22:2

1 departments to describe how to meet program requirements.

2 Q Have you completed your answer?

3 A No. The root cause that we attributed this to
4 was the fact that the document control requirements in
5 the quality assurance manual were not properly implemented
6 by te engineering personnel who initiated and issued these
7 documents.

8 Q Do you know why they weren't properly implemented?

9 A I don't know why an individual didn't recognize
10 that the document should have been a controlled document.
11 No, I don't know why. I could attribute that to lack of
12 training, which was another one of our findings.

13 Q Maybe I misunderstood you. Was this one individual,
14 or was this the result of the actions --

15 A No, there were several -- several group leaders
16 involved.

17 Q At first, you said you didn't know what the cause
18 was. Then you said it may have been lack of training.

19 A I said I could attribute it to training.

20 Q Did you actually go through that analysis previously
21 to decide whether it was attributable to lack of training?

22 A Well, as I explained before, we felt that the
23 categories of basic causes that we concluded within the
24 report covered all of these areas.

25 Q Will you look at No. 7 -- I'm sorry, page 7, No. 1?

ki 22:3

1 A Yes?

2 Q Did you establish the root cause for that
3 deficiency?

4 A Again, I think we covered this earlier. The FSAR
5 was not intended to be a design document and in most cases
6 was not used as a design document. I believe, in the instances
7 that we identified, where sections of it had been extracted
8 and given to someone as a system description to refer to, it
9 was really a misunderstanding on their part, that what they
10 were doing was providing design inputs to a consultant, and
11 that's the reason it was not identified as a design document
12 by the program.

13 Q Is it permissible currently, under DCP or PG&E
14 procedures, to rely solely on the FSAR as a document establish-
15 ing licensing criteria, without the further confirmation of
16 another or other documentation?

17 A I don't personally know an answer to that question.

18 Q Does anyone else --

19 JUDGE JOHNSON: Mr. Havian, can I give you some
20 advice that was given to me a little bit earlier today? The
21 use of the FSAR to establish licensing criteria is different
22 from using it as a design document.

23 MR. HAVIAN: Yes. That's why I'm asking specifically
24 licensing criteria this time, as opposed to design.

25 JUDGE JOHNSON: I just want to make sure everyone

ki 22:4

1 was aware of the distinction now being made.

2 MR. HAVIAN: Thank you, Dr. Johnson.

3 BY MR. HAVIAN:

4 Q Can anyone on the panel answer that question?

5 A (Witness Dick) Would you repeat the question,
6 please?

7 Q Is it permissible, under current DCP or PG&E
8 procedures, to rely solely on the FSAR to establish licensing
9 criteria without the further confirmation of some other
10 document?

11 A (Witness Jacobson) Well, no, it's not, because
12 there are other licensing commitments that need to be
13 consulted in terms of other submittals to the NRC. When
14 we're speaking of licensing commitments, you have to go
15 through and determine what they are, and then use them.

16 Q Would it be permissible in a design criteria
17 memorandum to provide a proposed criteria, and simply reference
18 the FSAR without more as the source of that criterion? I
19 mean, permissible under DCP procedures?

20 MR. NORTON: Excuse me, Your Honor. This is a
21 quality assurance panel. Mr. Moore was up there for several
22 days as a witness we offered on the procedures of the engineer-
23 ing procedures, and so on. Mr. Moore is sitting behind me,
24 and if the Board wishes, or Mr. Havian wishes, he can get
25 up and answer those kinds of questions. But this is a

ki 22:5

1 quality assurance panel.

2 MR. HAVIAN: I have no objection to Mr. Moore
3 answering this particular question.

4 JUDGE MOORE: Mr. Havian, I was wondering, isn't
5 it repetitive of what was already asked of Mr. Moore when
6 he testified two days ago?

7 MR. HAVIAN: Are you referring to the jet impinge-
8 ment issue, Judge Moore? I don't believe that I asked
9 Mr. Moore whether simply referencing the FSAR, without an
10 additional -- this is a result of Dr. Johnson's questioning
11 this morning which, in my mind, raised a concern as to
12 whether that is permissible.

13 JUDGE BUCK: I'm concerned about repetititon of
14 this morning. It's an exact same question asked by the
15 Governor's counsel.

16 MR. HAVIAN: Dr. Buck, I think that was just
17 brought up by Dr. Johnson. He asked a question of whether
18 it was permissible for design purposes.

19 JUDGE MOORE: Perhaps in the heat, our memories
20 have gotten a bit --

21 MR. NORTON: Probably it would take a lot less
22 time to just have Mr. Moore answer the question.

23 JUDGE MOORE: I think you're probably right,
24 Mr. Norton.

25

ki 22:6

1 Whereupon,

2 GARY MOORE

3 resumed the stand, and, having been previously duly sworn,
4 was examined and testified as follows:

5 MR. NORTON: Could you repeat the question,
6 Mr. Havian?

7 BY MR. HAVIAN:

8 Q Mr. Moore, is it permissible under DCP procedures
9 to rely solely on the FSAR for the establishment of licensing
10 criteria, without further confirmation?

11 A (Witness Moore) No, it isn't. I agree with
12 Mr. Jacobson's earlier answer, in that you must consult
13 other documents than just the FSAR to determine licensing
14 criteria.

15 Q And would it be improper if, in a design criteria
16 memorandum, a criterion was supplied, and the only reference
17 in the document was to the FSAR?

18 A It is --

19 Q I didn't hear you.

20 A It is improper to do that. I will not sign a
21 design criteria document that makes a direct reference to
22 the FSAR. I require the criteria to be stated in the design
23 criteria memorandum.

24 I do allow reference to the FSAR in terms of
25 referencing a source for that data.

XXXX

ki 22:7

1 Q And is it permissible to reference the FSAR as
2 a sole source for that data, providing you set forth the
3 data in the DCM?

4 A If it happens to be the sole source

5 Q Thank you.

6 MR. HAVIAN: I think Mr. Moore can retire.

7 WITNESS MOORE: Thank you.

8 MR. HAVIAN: You're welcome.

9 (Witness Moore excused.)

10 JUDGE MOORE: Proceed, Mr. Havian, so the rest
11 of us might also.

12 BY MR. HAVIAN:

13 Q I would like you to turn to Governor's Exhibit
14 33, which is the Bechtel QA management audit. With respect
15 to the finding relating to the construction drawing index,
16 I believe Mr. De Uriarte, were you the one who testified
17 about this earlier?

18 A (Witness De Uriarte) No, I was not.

19 Q Who was the one?

20 A (Witness Jacobson) I think I was.

21 Q I'm sorry.

22 Mr. Jacobson, you testified that you changed this
23 procedure. Is that correct? Or that this procedure was
24 changed?

25 A I think what I said was that the construction

ki 22:8

1 drawing index was phased out and we used the records
2 management system to control the drawings.

3 Q And what was the reason for that change?

4 A That was the quickest way to get all the drawings
5 on to a current revision status register.

6 Q Did you believe that the use of the construction
7 drawing index was inadequate?

8 A I'm having trouble with that question.

9 Q Let me make it more specific. As a result of
10 this finding, indicating that the current revision status
11 of 11 drawings out of 18 was not indicated, did that lead
12 you to conclude that the CDI was inadequate?

13 A It led us to take the corrective actions that
14 I've described.

15 Q Okay.

16 A But I think one thing needs to be borne in mind
17 is the modifications that we issued for Diablo Canyon were
18 controlled in a different way. So this particular index,
19 although it was important, was not the primary control on the
20 design documents that were being issued to the field.

21 Q Were those 18 drawings a sample of the total
22 drawings indicated on that index?

23 A yes.

24 Q Did you systematically check to see whether
25 similar errors were made on all of the other drawings on

ki 22:9

1 the index? I'm sorry -- other entries in the index?

2 A I'm sure we did that in the process of reviewing
3 the finding and determining what action we would take, but
4 I can't give you the specifics of what we found.

5 Q I would like to go to Governor's Exhibit 40.

End 22

mgc 23-1

Mr. Jacobson, do you have the exhibit?

A Yes, I do.

Q Who is C.E. Ralston?

A I'm probably not going to get the title right, but he is with PG&E.

Q Let me refresh your recollection. Turn to Page 2 of the document at the bottom.

A Okay. He's the Chief Engineer for PG&E for Engineering Quality Control.

Q Would it be the normal procedure that when an audit is done that the nature of the findings would be discussed with Mr. Ralston and the auditors when an audit of this nature is done?

MR. NORTON: Excuse me, Your Honor. I'm a little bit puzzled. Would it be discussed by whom?

MR. HAVIAN: I will rephrase the question.

BY MR. HAVIAN:

Q Would it be the normal procedure when an audit of this type was done, that the auditors would discuss the nature of their findings with Mr. Ralston?

A (Witness Jacobson) I would have to go back and look at the procedure that they did this with. This audit was not done by my group.

A (Witness DeUriarte) I can answer that.

Q Go ahead, Mr. DeUriarte.

mgc 23-2 1

A Yes, that is part of the procedure.

2 Q Mr. Skidmore, with respect to Governor's Exhibit
3 40, I believe you stated earlier that you cannot just simply
4 go by the fact that a certain percentage of the manuals
5 contained iscrepancies, .but you had to look at the nature
6 of each discrepancy in order to draw any conclusions.

7 Is that a fair characterization of your testimony?

8 A (Witness Skidmore) Close, but not quite.

9 Q Would you please tell me just the areas that you
10 think my characterization was inaccurate?

11 A The latter vpart. What I talked about was the
12 significance of what was found as to the discrepant conditions.

13 I guess maybe for clarification reasons, I might
14 come up with an example. I am aware that Gary Moore's manual.
15 as the Unit 1 Project Engineer, had two things found about it,
16 one on Friday before the audit, this audit that we're talking
17 about actually occurred. He received a procedure. The
18 audit started on Monday, and one of the discrepancies they
19 discovered was that he hadn't put his procedure in his book
20 over the weekend.

21 That doesn't seem to be overwhelming to me.

22 The other thing they found was that he had some
23 miscellaneous papers in his manual. That was another
24 deficiency. Again, that doesn't seem tremendously
25 significant.

mgc 23-3 1

2 I think you have to look at you what you
3 really -- get down to the detail and not just look at raw
4 numbers.

5 Q Mr. Skidmore, did you look at the detailed --

6 JUDGE MOORE: Excuse me, Mr. Havian. With
7 regard to your prior question, you reference, I believe,
8 Governor's Exhibit No. 40.

9 Aren't you speaking of Governor's Exhibit No. 42?

10 MR. HAVIAN: Mr. Chairman, I believe they go
11 together.

12 JUDGE MOORE: But they are separate exhibits.

13 MR. HAVIAN: I understand. I actually was --
14 it doesn't really matter. This document generally is what
15 I had intended.

16 BY MR. HAVIAN:

17 Q Mr. Skidmore, did you look at the nature of the
18 discrepancies bidentified in Governor's Exhibits 40 and 42
19 in the manner you have just described would be appropriate?

20 A (Witness Skidmore) As I also testified earlier,
21 this audit report came out a month before I transferred into
22 Quality Assurance.

23 Q So your answer is no?

24 A During -- Well, I bring out this example to
25 clarify the answer I gave earlier.

Q Mr. Skidmore, did you review these results,

mgc 23-4 1 these discrepancies, or did you not?

2 A No, I did not.

3 Q So you don't know the significance of the
4 deficiencies or discrepancies found that are described in
5 these exhibits; isn't that true?

6 A Outside of the example I gave, no.

7 Q Mr. Jacobson -- I'm sorry -- Mr. DeUriarte, you
8 were the one who said that Mr. Ralston would normally
9 sit down with the auditors and discuss their findings?

10 A (Witness DeUriarte) That's correct.

11 Q Is it reasonable to believe that Mr. Ralston has
12 questioned the auditors about the nature of the discrepancies
13 they found?

14 A Yes, it is.

15 May I clarify something about this audit?

16 Q No. I prefer that you just answer my questions.

17 A All right. Yes, it is.

18 Q So isn't it probably that Mr. Ralston had the
19 benefit of the auditors' comments when he wrote this letter,
20 which is identified as Governor's Exhibit 40?

21 A Yes. The author of the letter is indicated on
22 the lower left corner.

23 Q Thank you.

24 Mr. Skidmore, I believe you testified earlier
25 that although the quality -- the boudn volumn of the Quality

mgc 23-5 1 Assurance Manual might not have been updated, it was quite
2 possible that the engineers had reviewed the pages that
3 were to supplement the bound volumn, even though they hadn't
4 yet inserted them into the bound volumn.

5 Do you recall --

6 A (Witness Skidmore) I testified to that?

7 A (Witness DeUriarte) I said that.

8 Q I'm sorry. I didn't mean to misattribute the
9 statement.

10 Mr. DeUriarte, you said that?

11 A Yes, I did.

12 Q Did you mean to suggest by that that it was not
13 important that the engineers actually insert the updates
14 into the bound volumn?

15 A I don't know what the Engineering Manual requires.
16 If you read the conclusions on Page 2, it states, "The audit
17 results indicate that the elements of the procedure are
18 satisfactorily being implemented."

19 Q Excuse me. Where are you? Page 2?

20 A Page 2 of 2.

21 Q Are you on Governor's Exhibit 40 now?

22 A Governor's Exhibit 40, yes.

23 Q Go ahead. Where are you?

24 A Paragraph 8.2. It states, "The audit results
25 indicate that the elements of the procedure are

mgc 23-6 1 satisfactorily being implemented."

2 I guess if you go back to the "Scope" paragraph
3 on Page 1, Paragraphs 1.1 and 1.2, "The audit was performed
4 to verify that controlled copies of the manual are being
5 maintained in accordance with Paragraphs 4.6, 5.1 and 5.2
6 and procedures are being developed, revised, reviewed and
7 issued in accordance with Paragraphs 4.2 and 4.7."

8 And what Paragraph 3.2 is saying on Page 2 is
9 that the audit results indicated that all of the elements
10 of that procedure are satisfactorily being implemented.
11 And it goes on to say, "However, engineering manuals are
12 not being kept current and/or correctly maintained by
13 manual holders."

14 And I believe my reaction to this audit, when I
15 read it -- and I don't recall the specific date that I read
16 it -- when you get down to Paragraph 3.7, it says, "A
17 discrepancy report was issued against Engineering Quality
18 Control to perform a follow-up audit in order to verify
19 that the various engineering departments have taken the
20 necessary action to have manuals brought up to date."

21 And what that indicates to me is that
22 Mr. Ralson, as the Chief of Engineering Quality Control,
23 felt that the findings that were presented to him were
24 extremely minor in nature, because he did not issue a
25 discrepancy report to any of the departments to do something

mgc 23-7

1 about their individuals. He issued a discrepancy report
2 to his own department to remember to do a follow-up audit
3 on the same subject.

NBU

4 Q Mr. DeUriarte, earlier Dr. Johnson expressed
5 concern about the failure to update these manuals from the
6 standpoint of attention to quality assurance requirements.

7 Do you share that concern?

8 A Yes, I do.

9 MR. HAVIAN: This is the last series of questions
10 I have, Mr. Chairman.

11 BY MR. HAVIAN:

12 Q Could the panel again refer to -- would you
13 please turn to Joint Intervenors' Exhibit 128, which is
14 Draft Working Paper, Case Study C.

15 Would you please -- I think these questions will
16 probably be directed to Mr. DeUriarte.

17 Mr. DeUriarte, do you have a copy of that in
18 front of You/

19 A (Witness DeUriarte) Yes, I do.

20 Q Would you turn to Page 9, please?

21 A Okay.

22 Q Would you read out loud the last paragraph,
23 the second sentence in that paragraph?

24 A Starting with the words, "The large..."?

25 Q "The large amount..."

mgc 23-8 1

2 A "The large amount of rework resulting from
3 constantly changing requirements, coupled with turnover
4 in personnel and increased facility costs, increased the
real (or felt) pressure to complete the facility."

5 Q Read the next sentence, please.

6 A "As the facility nears completion or is in a
7 pre-start-up condition (as the licensee's station was in
8 the mid-1970s) and new or changed requirements arise, there
9 is an ever-present tendency to shortcut procedures and
10 to formalize action later."

11 Q Do you agree with that statement or those
12 statements as a general matter?

13 A I don't agree or disagree with them. They are
14 someone's opinion.

15 Q Well, I'm asking you if you agree or disagree with
16 them as an opinion.

17 JUDGE MOORE: I think his answer is, he's
18 ambivalent.

19 BY MR. HAVIAN:

20 Q Is that your answer, Mr. DeUriarte?

21 A I believe it is.

22 Q Can you explain to me why you are ambivalent?

23 MR. NORTON: Object, Your Honor.

24 JUDGE MOORE: Move on.

25 MR. HAVIAN: Mr. Chairman, I frankly don't

mgc 23-9

1 understand what there is to be ambivalent about, but I
2 will move on.

3 BY MR. HAVIAN:

4 Q Do you believe that this statement is accurate
5 as applied to the current situation at Diablo Canyon?

6 MR. NORTON: Excuse me. May we have them one
7 at a time? Which statement?

8 MR. HAVIAN: Actually, I think they go together
9 as a whole. I think one follows from the other.

10 MR. NORTON: Excuse me, Your Honor. I don't
11 believe there is any foundation that we have constantly
12 changing requirements today, for example.

13 JUDGE MOORE: Mr. Norton, he -- I believe it was
14 clear, but just because it is getting late, and we're all
15 getting tired, break it down. Take it one at a time.

16 In other words, give him the statement, and then
17 ask the question.

18 BY MR. HAVIAN:

19 Q Mr. DeUriarte, do you believe that the current
20 level or the level of rework that has occurred over the past
21 year at Diablo Canyon has ,increased the real or felt
22 pressure to complete the facility?

23 MR. NORTON: Your Honor, relative to when and who?

24 JUDGE MOORE: He said, I believe, in the last
25 year, Mr. Norton.

mgc 23-10¹

MR. NORTON: He said there's been a lot of work in the last year; has that increased the pressure to finish the work/

MR. HAVIAN: Over what was prior.

MR. NORTON: As to what time period and to whom?

JUDGE MOORE: Are you objecting to his failure to lay a foundation, I assume?

MR. NORTON: That's correct. Also --

JUDGE MOORE: Of course the problem is, the statement that he is referring to has no reference.

MR. NORTON: I understand that.

JUDGE MOORE: And it's obvious what the timeframe is, in my opinion.

But just because it's getting late and I want to finish up, give him the timeframe specifically, Mr. Havian.

BY MR. HAVIAN:

Q Mr. DeUriarte, the timeframes I am comparing are the past year at Diablo Canyon during the time of the most intense modifications.

A You are asking me if employees working on the project feel pressured to complete the project? Is that what you are asking me?

Q I think my question would be broader than that -- employees and management.

mgc 23-111

A I can only answer that as an employee. I have not felt any pressures put on me to do anything about my schedule in relation to the project.

Q Do you believe that pressure has been felt by others as well as yourself?

MR. NORTON: I am going to object, Your Honor.

MR. HAVIAN: In addition to yourself.

MR. NORTON: He has just said he can only speak for himself.

JUDGE MOORE: Move on, Mr. Havian. Sustained.

ki 24:1

1 BY MR. HAVIAN:

2 Q Would you please turn to page 10, same document?

3 Mr. De Uriarte, would you please read the last
4 sentence of the first paragraph?

5 A (Witness De Uriarte) "The Licensee and its consult-
6 ants and contractors were just far enough removed from the
7 customary level of informality to promote the possibility
8 of error and misunderstanding.

9 Q Do you believe that that was one of the causes
10 of the design errors that occurred at Diablo Canyon?

11 A This particular sentence refers to the situation
12 that we identified in the look-back review, that applies to
13 the URS/Blume organization. I do not agree with the sentence
14 in its broad statement that the Licensee and its consultants
15 and contractors. We had many consultants and contractors who
16 are not located in San Francisco.

17 Q Turn back to page 9, please, under paragraph A,
18 the first paragraph, the last phrase, "an atmosphere of
19 contention between engineering and quality assurance."

20 Do you believe that such an atmosphere of conten-
21 tion existed duirng --

22 A Excuse me. I haven't found the sentence yet.

23 Q I'm sorry; under A, primary root cause, the first
24 paragraph -- the last sentence is rather a long sentence.

25 And just to avoid reading the whole thing, I thought I would

ki 24:2

1 just get at the part I'm interested in.

2 Do you believe that one of the causes of the design
3 errors at Diablo Canyon was that there was an atmosphere of
4 contention between engineering and quality assurance?

5 A No, I do not. The atmosphere of contention between
6 engineering and quality assurance was something that was
7 prevalent in the industry in the early '70s. I believe anyone
8 from any project can talk about that.

9 The error that was identified occurred in the
10 late '70s.

11 Q So you believe that there was no such atmosphere
12 of contention in the late '70s?

13 A That's correct.

14 Q Do you believe that there was such an atmosphere
15 in the early '70s?

16 A In the very early '70s, '70, '71.

17 Q Would you turn to page 12, please, the last para-
18 graph on the page, about midway through the paragraph, the
19 sentence starting with, "The Licensee had a false sense of
20 security."

21 Will you please read that, down to the end of the
22 page?

23 A "The Licensee had a false sense of security with
24 respect to its engineering capability. As previously stated,
25 the Licensee was successful with the various types of

ki 24:3

1 generating projects. What had worked for those projects was
2 assumed to work for its first (in-house) nuclear project, and
3 thus the project was fitted into an existing structure which
4 carried with it practices not appropriate to nuclear work.

5 Q Do you believe that this was one of the causes
6 for the design discrepancies discovered at Diablo Canyon?

7 A I have no opinion on that.

8 Q If this were true, could it be one of the more
9 fundamental underlying causes which resulted in the causes
10 identified by you in your testimony in response to Question
11 No. 3 of that testimony?

12 JUDGE MOORE: I'm sorry: I'm going to have to ask
13 you to repeat that question.

14 MR. HAVIAN: Okay.

15 BY MR. HAVIAN:

16 Q Turn to page 3 of your testimony. Now, that's the
17 part where you have identified basic causes of design QA
18 deficiencies.

19 My question is, assuming the statement you just
20 read out loud is true, isn't it possible that that was a
21 more fundamental cause of the causes that you have identified
22 in your answer to No. 3?

23 A I'm sorry; I don't see a relationship at all.

24 Q Will you turn to page 13, please?

25 MR. NORTON: Of what?

ki 24:4

1 BY MR. HAVIAN:

2 Q Of Joint Intervenors' Exhibit No. 128. I'm sorry,
3 page 14, not 13.

4 First paragraph, I think the third sentence from
5 the end of the paragraph, "New QA/QC requirements were
6 accommodated."

7 Do you believe that one of the basic causes of
8 the design errors at Diablo Canyon was that QA/QC causes
9 were accommodated?

10 A (Witness De Uriarte) Causes?

11 Q Excuse me. Requirements were accommodated --

12 MR. NORTON: Excuse me, Your Honor. That tone of
13 voice of the question is incredible when one reads the words
14 preceding and following that sentence.

15 JUDGE MOORE: Mr. Norton, if that's an objection
16 to the tone of voice, it's overruled.

17 Continue, Mr. Havian.

18 BY MR. HAVIAN:

19 Q Mr. De Uriarte, do you understand my question?

20 A (Witness De Uriarte) Would you repeat it, please?

21 Q Do you believe that one of the causes of the
22 design errors discovered at Diablo Canyon was that new QA/QC
23 requirements were accommodated?

24 A I don't know what the writer of this document
25 meant by the word "accommodated."

ki 24:5

1 Q Assuming that he meant that they were not whole-
2 heartedly embraced, but were tolerated as a necessary evil,
3 would you agree that that was one of the causes of the design
4 errors?

5 MR. NORTON: Object.

6 MR. CHANDLER: Object.

7 MR. NORTON: Absolutely no foundation for that
8 assumption whatsoever.

9 JUDGE MOORE: He has provided the interpretation,
10 and he has asked for an opinion. It's innocuous, Mr. Norton.
11 Answer the question.

12 WITNESS DE URIARTE: I'm sorry; you'll have to ask
13 it again.

14 BY MR. HAVIAN:

15 Q Do you agree -- using the characterization I just
16 gave of accommodating, would that be one of the basic causes
17 for the design errors at Diablo Canyon?

18 A (Witness De Uriarte) I really don't see that as
19 a basic cause.

20 Q Will you turn to page 17 of Exhibit 128? Will
21 you read the sentence in the third paragraph, the third sentence
22 from the end, which starts out, "The QA guidelines had
23 seemed. . ."

24 Just read that one sentence, please.

25 A "The QA guidelines had seemed to restrict the

ki 24:6

1 conduct of assuring quality, and thus it was resisted."

2 Q Do you believe that that statement is true, as
3 it applies to Diablo Canyon before 1981?

4 A I don't understand the statement.

5 Q Would you read the sentence that precedes it?

6 A "They started with a few of the required procedures
7 and then flooded the place with records, without having people
8 to take care of them."

9 Q Does that clarify the meaning of the following
10 sentence for you?

11 A Not for me.

12 Q Page 24, the third paragraph on the page. Will
13 you read the sentence -- the two sentences beginning with the
14 third line of that paragraph, "Further, a study team --

15 A "Further, the study team made the comment that
16 it appeared to them that the Licensee's engineering organization
17 appeared as prima donnas. This was not disputed by the
18 Licensee's upper management."

19 Q Do you believe that the engineering organization
20 appear as prima donnas at Diablo Canyon?

21 A I --

22 (Laughter.)

23 I would love to say yes.

24 (Laughter.)

25 Q Maybe we should all go home now. Does this

ki 24:7

1 statement --

2 MR. NORTON: Excuse me. Was there a record
3 answer?

4 JUDGE MOORE: The answer was, "I would love to
5 say yes," and then he said "Yes."

6 WITNESS DE URIARTE: No, I did not say "Yes."

7 JUDGE MOORE: Thank you, Mr. Norton. I was looking
8 right at him.

9 BY MR. HAVIAN:

10 Q Mr. De Uriarte --

11 A (Witness De Uriarte) I do not have an opinion
12 that that. They do not appear as prima donnas to me, and
13 never have.

14 Q So is it you don't have an opinion, or you disagree
15 with it?

16 A I'll say I disagree with it.

17 Q Will you turn to page 1 of Appendix A of Exhibit
18 128? Will you please read the first two sentences in that
19 paragraph?

20 A Paragraph A?

21 Q I'm sorry; the third paragraph on the page.

22 A "Many of the management decisions over the years
23 indicate an attitude of 'do anything and everythin to
24 expedite bringing the plant on line.'"

25 Q Why don't you stop there, just for a moment?

ki 24:8

1 Do you believe that that statement is true as it
2 applies to Diablo Canyon?

3 A They're talking about people's attitudes. I
4 can't comment on people's attitudes.

5 Q Continue.

6 A The current independent design verification program,
7 and establishing in 1982 the project completion team under
8 an architect engineer's direction, reflect this attitude.

9 Q Okay, stop there. Do you believe that the
10 establishment of the IDVP and the Diablo Canyon Project
11 reflect the attitude of "do anything and everything to expedite
12 bringing the plant on line"?

13 MR. NORTON: Excuse me, Your Honor. Stopping
14 there is okay, except it's in the middle of a sentence.

15 MR. HAVIAN: I'm trying to make it easier.

16 MR. NORTON: If you read the last part of the
17 sentence, it certainly changes the meaning.

18 MR. HAVIAN: I'm just asking him if that part of
19 it follows.

20 WITNESS DE URIARTE: Not for me it doesn't.

21 JUDGE MOORE: If the witness isn't going to give
22 me time to read it, Mr. Norton, the answer stands.

23 BY MR. HAVIAN:

24 Q Mr. De Uriarte, will you read from there to the
25 end of the sentence?

ki 24:9

1 A (Witness De Uriarte) "However, the extent to which
2 these changes reflect a real commitment to assuring quality,
3 rather than providing 'cosmetics' is not totally clear."

4 Q Do you agree with that?

5 A I don't agree or disagree with it. It's someone's
6 opinion on something they reviewed. I really don't see any
7 relevance in it, in my own mind.

8 Q Will you read the last sentence, please?

9 A "The apparent imbalance between construction and
10 engineering in assuring quality is considered to reflect
11 some lack of commitment at the top levels of corporate
12 management."

13 Q Do you agree or disagree with that statement as
14 it applies to Diablo Canyon?

15 A Well, I don't know what they mean by the "apparent
16 imbalance."

17 Q If I were to tell you that they mean the imbalance
18 between the quality assurance program applied to construction
19 and the quality assurance program applied to engineering,
20 would you agree or disagree with that statement, as it applies
21 to Diablo Canyon?

22 A We have discussed all day the deficiencies in the
23 design quality assurance program which were limited to two
24 area. The same program was applied to construction, except
25 that those two areas were not missing. I don't see the

ki 24:10

1 relevance of the statement by whoever wrote it. I just
2 don't see it.

3 Q Will you turn to page 2 of Appendix A, please?

4 JUDGE MOORE: Are you almost finished with this,
5 Mr. Havian?

6 MR. HAVIAN: Yes, Mr. Chairman. I think I just
7 need about 10 or 15 minutes and I'll be finished completely
8 with the entire cross examination.

9 JUDGE BUCK: Continue on this type of thing?

10 MR. HAVIAN: Yes.

11 JUDGE BUCK: I'm sorry: I just think we're reading
12 a bunch of sentences out of context, through a document that
13 is useless. Frankly, I just think it's a waste of time.

14 MR. HAVIAN: Dr. Buck, I'm asking him if he agrees
15 or disagrees with those sentences and the context is here
16 in the document. And the document will be introduced in
17 evidence, as I had stated earlier. So I don't understand
18 that there is difficulty with context.

19 JUDGE MOORE: Go ahead, Mr. Havian, but please
20 be brief.

21 End 24
22
23
24
25

T25 M1/ 1

mm 2

BY MR. HAVIAN:

Q Mr. DeUriarte, would you please read the sentence, the third sentence starting with "Corporate QA does audit."

MR. NORTON: Excuse me, your Honor. Could I ask that we quit reading the sentences, at least out loud. That would probably cut the time in half.

JUDGE MOORE: There is probably really no need for it since we are going to have a Staff witness on subsequently and this document is going to come in.

Why don't we do that, Mr. Havian. Would that be all right with you?

MR. HAVIAN: I feel like it is preferable for him to be reading -- I will read it out loud if that is preferable.

JUDGE MOORE: We would just like to speed up, since there is grave doubt as to the usefulness of this line of questioning in the Board's mind.

MR. HAVIAN: May I proceed?

JUDGE MOORE: Certainly.

BY MR. HAVIAN:

Q Mr. DeUriarte --

A (Witness DeUriarte) Do you want me to read the sentence?

Q Yes, please.

mm2 1 A "Corporate QA does audit facilities on a
2 periodic basis. However, general understanding by upper
3 management would indicate that they would not see the need to
4 audit from a management standpoint."

5 Q Is that sentence true of Diablo Canyon today?

6 A I don't really know what they are talking about here.
7 "General understanding by upper management," I don't know what
8 that means.

9 Q Mr. Skidmore, do you agree with that statement as
10 it applies to Diablo Canyon?

11 A (Witness Skidmore) No, I do not.

12 Q Let's go to page A-4, please. The sentence on
13 paragraph b. The third sentence starts with, "The engineering
14 manager's philosophy." Read that, Mr. DeUriarte.

15 A (Witness DeUriarte) "The engineering manager's
16 philosophy is that the people responsible for the task are
17 the only ones capable of really getting it done."

18 Q Do you know the engineering manager who is at
19 Diablo Canyon, on the Diablo Canyon project today?

20 A Engineering manager, I believe, is Dick Anderson.

21 Q Do you agree with this statement as it relates to
22 Mr. Anderson?

23 MR. NORTON: Excuse me, your Honor, is there any
24 foundation that the engineering manager they are referring to
25 here is the present engineering manager?

mm3

1 JUDGE MOORE: No, there has not been.

2 MR. NORTON: I object to that question.

3 JUDGE MOORE: Sustained. Why don't you ask him --

4 MR. HAVIAN: That is my next question.

5 JUDGE MOORE: Generally if you ask it first, we
6 won't have the objection. Go ahead.

7 BY MR. HAVIAN:

8 Q How long has Mr. Anderson been the engineering
9 manager?

10 A (Witness DeUriarte) To my knowledge, during the
11 whole project.

12 A (Witness Skidmore) I believe since April of '82.

13 MR. HAVIAN: It says in the report, Mr. Chairman,
14 earlier on it does say that this report was conducted in
15 January of 1983. You can take the time to look through and
16 find out --

17 MR. NORTON: I understand all that, your Honor,
18 but this is the licensee, talking about PG&E. Mr. Anderson
19 is the Diablo Canyon project engineering manager, and I am
20 not sure at all from reading this whether they are talking
21 about an engineering manager historically at PG&E; whether
22 they are talking about the project. But, it looks like it is
23 a historical reference. It is not clear and there is no
24 foundation.

25 MR. HAVIAN: It does say "the engineering manager's

mm4

1 philosophy is," not was.

2 MR. NORTON: In the preceding sentence is "many
3 people were put into quality functions," so --

4 MR. HAVIAN: That is the preceding sentence.

5 MR. NORTON: That is my objection to this document,
6 incidentally. We don't have anybody here to tell us what was
7 meant.

8 JUDGE MOORE: That is going to happen, Mr. Norton.
9 As we are all aware, you will be given full opportunity.

10 JUDGE JOHNSON: Mr. Havian, I have a question. I
11 thought the case study referred to the quality assurance
12 problems that arose at PG&E are those which brought this
13 hearing about, and I did not realize that it pertained to
14 the Diablo Canyon project as it is now constituted.

15 MR. HAVIAN: Dr. Johnson, I can understand that
16 lack of clarity, but the document if you read it in many
17 portions does refer to the current organization. For example,
18 the reference to the IDVP and the project completion team.

19 There are numerous references of a similar nature
20 which indicate that parts of the document do cover the period
21 since 1981.

22 MR. NORTON: Excuse me, your Honor, the water torture
23 is effective and I will let him answer the question with the
24 clear understanding that it is not clear at all who is being
25 referred to. He can ask whether he thinks Mr. Anderson is

mm5 1 that way or not, I don't care.

2 JUDGE MOORE: Mr. Norton, it is obviously the
3 document that has that vagueness in it. But, for it to have
4 any meaning you are really going to have to pin it down.

5 BY MR. HAVIAN:

6 Q Mr. DeUriarte, do you know who the engineering
7 manager at PG&E was in January 1983?

8 A (Witness DeUriarte) We don't use that job title
9 at PG&E.

10 Q Is it your opinion --

11 JUDGE MOORE: Do you want to keep going, Mr. Havian?

12 MR. HAVIAN: That is the answer I expected, since
13 he said it was Mr. Anderson, and Mr. Anderson works for the
14 DCP.

15 BY MR. HAVIAN:

16 Q Do you believe that sentence is true of
17 Mr. Anderson, that his philosophy is that people responsible
18 for the tasks are the only ones capable of really getting it
19 done. He refuses to accept an independent organization
20 watching his activities, he doesn't understand the concept?

21 A (Witness DeUriarte) If that is talking about
22 Mr. Anderson, no I don't.

23 Q Will you turn to page 8 of the body of the
24 document -- I'm sorry, 8 of the Appendix, paragraph A.

25 Will you read the second sentence.

mm6

1 A "The engineering problems which have been so
2 costly appear to have resulted at least in part from very
3 heavy schedule pressures."

4 Q Read the next sentence, please.

5 A "This was extended to the initial efforts at a
6 design verification program which produced an additional
7 set of problems."

8 Q Do you believe that heavy schedule pressures
9 contributed to the design errors discovered at Diablo
10 Canyon?

11 A I don't have any evidence to base that on.

12 Q Does that mean you do not believe that to be the
13 case?

14 A That means I do not believe that to be the case.

15 Q Do you believe that heavy schedule pressures
16 produced a set of problems with respect to the initial
17 efforts at a design verification program?

18 A I would have to know what the set of problems are
19 that they are referring to.

20 Q One last question. Turn to page 17 of the body of
21 the exhibit, first paragraph. The parenthetical at the
22 end of the paragraph, will you please read that.

23 A "He commented on a number of problems, mostly
24 personnel related that had arisen as a result of this
25 integrated matrix organization."

mm7

1 Q Has the DCP experienced personnel problems as a
2 result of the integrated organization?

3 A Not that I am aware of.

4 MR. HAVIAN: I have no further questions.

5 JUDGE MOORE: Mr. Chandler?

6 MR. CHANDLER: We have no questions, Mr. Chairman.

7 JUDGE MOORE: Mr. Norton, redirect?

8 MR. NORTON: It is five after five. I would like to
9 confer with my panel to determine whether or not I am going
10 to do any redirect. I have an awful lot of notes to go
11 over.

12 JUDGE MOORE: Why don't you confer and give us an
13 estimate if you have any redirect, of how long it will
14 take.

15 Take five minutes --

16 MR. NORTON: The real problem is, if I have any it
17 will take some time. The question is whether or not I am
18 going to have any. I know if I do it will take some time.

19 JUDGE MOORE: Fine. If you do, can you determine
20 within the next five minutes whether you will have any?

21 MR. NORTON: I think I can, sure.

22 JUDGE MOORE: And then you can give us some idea
23 of how long it will be?

24 MR. NORTON: Yes.

25 JUDGE MOORE: Thank you.

(Recess)

end T25

mg. 6-1 1

2 JUDGE MOORE: Mr. Norton, do you have any
redirect?

3 MR. NORTON: I have a problem that I would like
4 to ask the Board's indulgence.

5 We've got an awful lot of documents that were
6 presented to us that we had not reviewed in terms of the
7 cross-examination before today.

8 The panel wants the opportunity, and I, too,
9 want the opportunity to look through these documents and
10 look through our notes to determine whether we do want to
11 do redirect, and if so, to at least focus it rather than --
12 there's been about ten to fifteen exhibits introduced by
13 the two parties, and we just need the time to do that.

14 JUDGE MOORE: How about 9:00 o'clock tonight?

15 I just like to see people's faces.

16 (Laughter.)

17 MR. NORTON: That's sufficient time. We'll be
18 here if you are.

19 I think it's safe to say that Dr. Johnson --
20 you should have seen his face!

21 (Laughter.)

22 You were looking in the wrong direction.

23 JUDGE MOORE: I could feel it.

24 JUDGE BUCK: As a matter of fact, I suggested
25 earlier today that we start these hearings at 4:00 o'clock

mgc 26-2 1 and run until midnight. It wouldn't be so hot. And I
2 think Johnson was thinking that I had convinced Mr. Moore
3 of that.

4 JUDGE MOORE: We understand the situation we
5 are in, and it would be best, then, to have any redirect
6 and very limited recross on that redirect first thing in
7 the morning.

8 There is one other matter. Mr. Havian, with regard
9 to your Stay, it is the Board's opinion that at this time,
10 it is premature until the Commission acts in some way or
11 other on what we understand will be November 8th, and we
12 will be prepared to act on November 8th, so that you may
13 have our response to your Stay for immediate appeal either
14 to the Commission and then on to the Court of Appeals.

15 That should not in any way interfere with your
16 preparations, since you have already filed the same document
17 with the Commission, as indicated by the cover letter you
18 provided us in your transmittal of that Stay Motion to the
19 Commission.

20 So we will be prepared on November 8th to rule
21 on your Stay, immediately upon our receiving word of the
22 Commission's decision, if there is any.

23 MR. HAVIAN: Mr. Chairman, is there a need for
24 us to renew the Motion formally, or can we just assume that --

25 JUDGE MOORE: No, no. There is no need to renew

mgc 26-31 it formally at all. We will rule on it -- we will wait
2 until it becomes ripe, and then we will rule on it.

3 Do you have something to add, Mr. Norton?

4 MR. NORTON: Not about that specific thing.

5 But I could tell the discussion about putting
6 something over the overhang out there, that is not where
7 the glare comes from. The glare comes off the water.

8 JUDGE MOORE: We will stand in recess.

9 (Whereupon, at 5:15 p.m., the hearing was
10 recessed to resume at 9:00 a.m., Friday, November 4,
11 1983.)

CERTIFICATE OF PROCEEDINGS

This is to certify that the attached proceedings before the
NRC COMMISSION

In the matter of: Pacific Gas & Electric Co.
(Diablo Canyon Nuclear Power Plant)

Date of Proceeding: Thursday, 3 November 1983

Place of Proceeding: Avila Beach, California

were held as herein appears, and that this is the original
transcript for the file of the Commission.

Mimie Meltzer
Official Reporter - Typed

Mimie Meltzer
Official Reporter - Signature