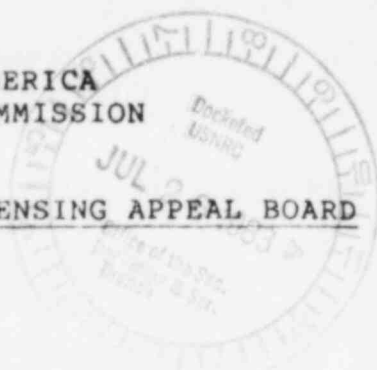


UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD



In the Matter of

PACIFIC GAS AND ELECTRIC COMPANY

Diablo Canyon Nuclear Power Plant  
Units Nos. 1 and 2

)  
)  
) Docket No. 50-275  
) Docket No. 50-323  
) [Reopened Proceeding -  
) Design Quality Assurance]  
)  
)

APPLICANT PACIFIC GAS AND ELECTRIC COMPANY'S  
ANSWERS TO  
GOVERNOR GEORGE DEUKMEJIAN'S  
SECOND SET OF INTERROGATORIES

INTERROGATORY NO. 1:

When did PG&E first commit itself to comply with  
Appendix B in the design of Diablo Canyon?

RESPONSE TO INTERROGATORY NO. 1:

July 10, 1969

INTERROGATORY NO. 2:

In what form was the commitment to comply with  
Appendix B made?

RESPONSE TO INTERROGATORY NO. 2:

It was made in Amendment 4 to the Preliminary Safety  
Analysis Report (PSAR) for Unit 2, Diablo Canyon Power Plant.

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INTERROGATORY NO. 3:

To what extent did the commitment apply to work performed before the date of the commitment?

RESPONSE TO INTERROGATORY NO. 3:

The commitment was not applied to prior work.

INTERROGATORY NO. 4:

If the commitment identified in your answer to Interrogatory No. 1 was other than an unconditional commitment to comply fully with all terms of Appendix B for design of Diablo Canyon,

- (a) What was the extent of the commitment made at that time?
- (b) Was that commitment ever enlarged by PG&E?
- (c) If it was ever enlarged, identify each and every commitment by PG&E to enlarge compliance, specifying
  - (i) when the commitment was made,
  - (ii) what the extent of the enlarged commitment was, and
  - (iii) the form in which the commitment was made.

RESPONSE TO INTERROGATORY NO. 4:

- (a) PG&E committed to comply with Appendix B for Unit 1 to the extent possible considering the status of design and construction at that time.
- (b) No.
- (c) Not applicable.

INTERROGATORY NO. 5:

When did PG&E first commit itself to comply with the quality assurance requirements of Appendix A in the design of Diablo Canyon?

RESPONSE TO INTERROGATORY NO. 5:

Issuance of construction permits for both units and a substantial portion of the design of the Diablo Canyon Units predated the adoption of Appendix A to 10 CFR 50 (published by the Atomic Energy Commission (AEC) in February, 1971). As stated in Section 3.1 of the Diablo Canyon Final Safety Analysis Report (FSAR), the Diablo Canyon Units were designed to comply with the "General Design Criteria for Nuclear Power Plant Construction Permits" published by the AEC in July, 1967. The relationship of the plant design to the 1967 General Design Criteria was set forth in Chapter 1 of both the Unit 1 and Unit 2 PSARs. The Unit 1 and Unit 2 PSARs were submitted with the Construction Permit Applications on January 16, 1967 and June 28, 1970, for Units 1 and 2, respectively. Appendix 3.1A of the Diablo Canyon FSAR compares the plant design with the general design criteria contained in Appendix A to 10 CFR 50. With respect to the quality requirements of Design Criterion 1, this comparison concludes that "the Diablo Canyon Units 1 and 2 designs conform with the intent of Criterion 1".

INTERROGATORY NO. 6:

In what form was the commitment to comply with the quality assurance requirements of Appendix A made?

RESPONSE TO INTERROGATORY NO. 6:

See response to Interrogatory 5.

INTERROGATORY NO. 7:

To what extent did the commitment apply to work performed before the date of the commitment?

RESPONSE TO INTERROGATORY NO. 7:

See response to Interrogatory 5. Quality requirements contained in Appendix A to 10 CFR 50 did not apply to design performed prior to its adoption.

INTERROGATORY NO. 8:

If the commitment identified in your answer to Interrogatory No. 5 was other than an unconditional commitment to comply fully with all terms of the quality assurance requirements of Appendix A for design of Diablo Canyon,

- (a) What was the extent of the commitment made at that time?
- (b) Was that commitment ever enlarged by PG&E?
- (c) If it was ever enlarged, identify each and every commitment by PG&E to enlarge compliance, specifying
  - (i) when the commitment was made,
  - (ii) what the extent of the enlarged commitment was, and
  - (iii) the form in which the commitment was made.



RESPONSE TO INTERROGATORY NO. 8:

See response to Interrogatories 5 and 7. Design work which was begun after the adoption of Appendix A to 10 CFR 50 was based on the quality requirements contained in Criterion No. 1.

INTERROGATORY NO. 9:

When did PG&E first commit itself to comply with the quality assurance requirements of Appendix A in the design of Diablo Canyon SS&Cs that are important to safety but not safety-related?

RESPONSE TO INTERROGATORY NO. 9:

See response to Interrogatories 5 through 8. Also, refer to PG&E's response dated May 23, 1983 to Governor Deukmejian's First Set of Interrogatories. PG&E's answers to Interrogatories Nos. 12 and 13 clearly state PG&E's understanding of the meaning of the terms "important-to-safety" and "safety-related". The term "important to safety" was not used in the 1967 "General Design Criteria for Nuclear Power Plant Construction Permits" but appeared in the final version of Appendix A to 10 CFR 50 published in February 1971. For purposes of its compliance with General Design Criterion 1, PG&E considers that the term "important-to-safety" as used in Appendix A to 10 CFR 50 is synonymous both with the term "safety-related" as used in other sections of NRC rules and regulations and with "PG&E Design Class I."

INTERROGATORY NO. 10:

In what form was the commitment made to comply with the quality assurance requirements of Appendix A in the design of Diablo Canyon SS&Cs that are important to safety but not safety-related?

RESPONSE TO INTERROGATORY NO. 10:

See response to Interrogatory 9.

INTERROGATORY NO. 11:

To what extent did the commitment apply to work performed before the date of the commitment?

RESPONSE TO INTERROGATORY NO. 11:

See response to Interrogatory 9.

INTERROGATORY NO. 12:

If the commitment identified in your answer to Interrogatory No. 9 was other than an unconditional commitment to comply fully with all terms of the quality assurance requirements of Appendix A for design of Diablo Canyon SS&Cs that are important to safety but not safety-related,

- (a) What was the extent of the commitment made at that time?
- (b) Was that commitment ever enlarged by PG&E?
- (c) If it was ever enlarged, identify each and every commitment by PG&E to enlarge compliance, specifying
  - (i) when the commitment was made
  - (ii) what the extent of the enlarged commitment was, and

(iii) the form in which the commitment was made.

RESPONSE TO INTERROGATORY NO. 12:

See response to Interrogatory 9.

INTERROGATORY NO. 13:

When did PG&E first commit itself to comply with WASH-1283 in the design of Diablo Canyon?

RESPONSE TO INTERROGATORY NO. 13:

PGandE has never committed to comply with WASH-1283 for design of Diablo Canyon.

INTERROGATORY NO. 14:

In what form was the commitment to comply with WASH-1283 made?

RESPONSE TO INTERROGATORY NO. 14:

Not applicable.

INTERROGATORY NO. 15:

To what extent did the commitment apply to work performed before the date of the commitment?

RESPONSE TO INTERROGATORY NO. 15:

Not applicable.

INTERROGATORY NO. 16:

If the commitment identified in your answer to Interrogatory No. 13 was other than an unconditional commitment to comply fully with all terms of WASH-1283 for design of Diablo Canyon,

- (a) What was the extent of the commitment made at that time?
- (b) To what extent did the commitment apply to work performed before the date of the commitment?
- (c) Was that commitment ever enlarged by PG&E?
- (d) If it was ever enlarged, identify each and every commitment by PG&E to enlarge compliance, specifying
  - (i) when the commitment was made,
  - (ii) what the extent of the enlarged commitment was, and
  - (iii) the form in which the commitment was made.

RESPONSE TO INTERROGATORY NO. 16:

Not applicable.

INTERROGATORY NO. 17:

With respect to each of the ANSI standards specified below in items A through G, state separately:

- (a) When did PG&E first commit itself to comply with the standard in the design of Diablo Canyon?
- (b) In what form was the commitment to comply with the standard made?
- (c) With which revision of the standard did PG&E commit itself to comply, and to what extent did PG&E

subsequently commit itself to comply with later revisions?

- (d) To what extent did the commitment apply to work performed before the date of the commitment?
- (e) If the commitment identified in your answer to item (b), above, was other than an unconditional commitment to comply fully with all terms of the standard for the design of Diablo Canyon:
  - (1) What was the extent of the commitment made at that time?
  - (2) Was that commitment ever enlarged by PG&E?
  - (3) If it was ever enlarged, identify each and every commitment by PG&E to enlarge compliance, specifying
    - (i) when the commitment was made,
    - (ii) what the extent of the enlarged commitment was, and
    - (iii) the form in which the commitment was made.

The standards to which this interrogatory refers are:

- (A) ANSI N45.2
- (B) ANSI N45.2.9
- (C) ANSI N45.2.10
- (D) ANSI N45.2.11
- (E) ANSI N45.2.12
- (F) ANSI N45.2.13
- (G) ANSI N45.2.23.

RESPONSE TO INTERROGATORY NO. 17:

ITEM (A) ANSI N45.2

- (a) September 28, 1973.
- (b) PG&E committed to ANSI N45.2 in the original Diablo Canyon FSAR.
- (c) PG&E committed to ANSI N45.2-1971 and has not changed that commitment.
- (d) Not at all.
- (e) The commitment to ANSI N45.2 was unconditional.

ITEM (B) ANSI N45.2.9

- (a) September 28, 1973.
- (b) PG&E committed to ANSI N45.2.9 in the original Diablo Canyon FSAR
- (c) PG&E committed to the rough draft of ANSI N45.2.9 in existence in 1973. In a proposed FSAR revision submitted for approval on June 10, 1983, PG&E committed to ANSI N45.2.9-1974 with the exception that PG&E complies with the two-hour fire rating in Section 5.6 of ANSI N45.2.9-1979.
- (d) Not at all.
- (e) The commitment to ANSI N45.2.9. was unconditional.

ITEM (C) ANSI N45.2.10

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.
- (c) ANSI N45.2.10-1973.
- (d) The commitment does not apply to prior work; however, ANSI N45.2.10 contains definitions generally accepted throughout the nuclear

industry and PG&E has been in compliance with the guidance of ANSI N45.2.10 since its issuance in 1973.

(e) The proposed commitment is unconditional.

ITEM (D) ANSI N45.2.11

(a) June 10, 1983.

(b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.

(c) ANSI N45.2.11-1974.

(d) The commitment does not apply to prior work; however, the guidance contained in ANSI N45.2.11 was used in developing revisions to PG&E's design procedures beginning in 1978 and ANSI N45.2.11 is referenced in those procedures as applicable.

(e) The proposed commitment is unconditional.

ITEM (E) ANSI N45.2.12

(a) June 10, 1983.

(b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.

(c) ANSI N45.2.12-1977.

(d) The commitment does not apply to prior work; however, the guidance contained in ANSI N45.2.12 has been followed by the PG&E Quality Assurance Department since the issuance of the Standard in 1977.

(e) The proposed commitment is unconditional.

ITEM (F) ANSI N45.2.13

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.
- (c) ANSI N45.2.13-1976.
- (d) The commitment does not apply to prior work; however, the guidance contained in ANSI N45.2.13 has been used by PG&E in procurement activities since the issuance of the Standard in 1976.
- (e) The proposed commitment is unconditional.

ITEM (G) ANSI N45.2.23

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.
- (c) ANSI N45.2.23-1978.
- (d) The commitment does not apply to prior work; however, PG&E's Quality Assurance Department internal procedure for qualification of auditors has complied with the guidance contained in ANSI N45.2.23 since August 15, 1977.
- (e) The proposed commitment is unconditional.

INTERROGATORY NO. 18

With respect to each of the Reg. Guides specified below in items A through G, state separately:

- (a) When did PG&E first commit itself to comply with the Reg. Guide in the design of Diablo Canyon?



- (b) In what form was the commitment to comply with the Reg. Guide made?
- (c) With which revision of the Reg. Guide did PG&E commit itself to comply, and to what extent did PG&E subsequently commit itself to comply with later revisions?
- (d) To what extent did the commitment apply to work performed before the date of the commitment?
- (e) If the commitment identified in your answer to item (b), above, was other than an unconditional commitment to comply fully with all terms of the Reg. Guide for the design of Diablo Canyon:
  - (1) What was the extent of the commitment made at that time?
  - (2) Was the commitment ever enlarged by PG&E?
  - (3) If it was ever enlarged, identify each and every commitment by PG&E to enlarge compliance, specifying
    - (i) when the commitment was made,
    - (ii) what the extent of the enlarged commitment was, and
    - (iii) the form in which the commitment was made.

The Reg. Guides to which this interrogatory refers are:

- (A) 1.28
- (B) 1.88
- (C) 1.74
- (D) 1.64
- (E) 1.144
- (F) 1.123
- (G) 1.146

RESPONSE TO INTERROGATORY NO. 18:

ITEM (A) Reg. Guide 1.28 (Safety Guide 28)

- (a) September 28, 1973.
- (b) PG&E committed to Safety Guide 28 in the original Diablo Canyon FSAR.
- (c) PG&E has committed to Reg. Guide 1.28 (Safety Guide 28 - June 7, 1972) and has not changed that commitment.
- (d) The commitment does not apply to prior work.
- (e) The commitment to Reg. Guide 1.28 was unconditional.

ITEM (B) Reg. Guide 1.88

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.
- (c) Revision 2 of Reg. Guide 1.88 (October 1976).
- (d) The commitment does not apply to prior work. Reg. Guide 1.88 endorses ANSI N45.2.9 which PG&E committed to comply with in its draft form in 1973. (See response to Interrogatory 17.)
- (e) The proposed commitment is unconditional.

ITEM (C) Reg. Guide 1.74

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.

- (c) Reg. Guide 1.74 (February, 1974).
- (d) The commitment does not apply to prior work. Reg. Guide 1.74 endorses ANSI N45.2.10, the guidance of which PG&E has attempted to comply with since 1973. (See response to Interrogatory No. 17).
- (e) The proposed commitment is unconditional.

ITEM (D) Reg. Guide 1.64

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.
- (c) Revision 2 of Reg. Guide 1.64 (June, 1976).
- (d) The commitment does not apply to prior work; however, Reg. Guide 1.64 endorses ANSI N45.2.11. PG&E has used the guidance contained in ANSI N45.2.11 since 1978.  
(See response to Interrogatory No. 17).
- (e) The proposed commitment is unconditional.

ITEM (E) Reg. Guide 1.144

- (a) June 10, 1983.
- (b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.
- (c) Guide 1.144 (September 1980).
- (d) The commitment does not apply to prior work; however, Reg. Guide 1.144 endorses ANSI N45.2.12 which PG&E has complied with since 1977. (See response to Interrogatory No. 17.)

(e) The proposed commitment is unconditional.

ITEM (F) Reg. Guide 1.123

(a) June 10, 1983.

(b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.

(c) Reg. Guide 1.123 (January 1977).

(d) The commitment does not apply to prior work; however, Reg. Guide 1.123 endorses ANSI N45.2.13. PG&E has used the guidance contained in ANSI N45.2.13 since 1976. (See response to Interrogatory No. 17).

(e) The proposed commitment is unconditional.

ITEM (G) Reg. Guide 1.146

(a) June 10, 1983.

(b) In a proposed FSAR revision submitted to the NRC for approval on June 10, 1983.

(c) Reg. Guide 1.146 (August, 1980).

(d) The commitment does not apply to prior work; however, Reg. Guide 1.146 endorses ANSI N45.2.23 which PG&E has complied with since August, 1977. (See response to Interrogatory No. 17).

(e) The proposed commitment is unconditional.

INTERROGATORY NO. 19:

For each and every criterion contained in Appendix B, during what period, if any, do you contend that the quality

assurance program for the design of Diablo Canyon Units 1 and 2 met the requirements of that criterion?

RESPONSE TO INTERROGATORY NO. 19:

July 10, 1969 to present.

INTERROGATORY NO. 20:

Has the seismic design work of each and every design group in the design chain for each and every safety-related SS&C been reviewed by the DCP since November 19, 1981?

RESPONSE TO INTERROGATORY NO. 20:

Yes.

INTERROGATORY NO. 21:

If your answer to the preceding interrogatory is other than an unqualified "yes," for all safety-related SS&Cs that have not been so reviewed state:

- (a) the identity and locations of the SS&Cs, and the identity of the design groups whose work was not reviewed;
- (b) the reason for their exclusion from review;
- (c) the identity of the person responsible for the decision to exclude them.

RESPONSE TO INTERROGATORY NO. 21:

Not applicable.

INTERROGATORY NO. 22:

Has the seismic qualification of all procured components that are safety-related been reviewed by the DCP since November 19, 1981?

RESPONSE TO INTERROGATORY NO. 22:

Yes.

INTERROGATORY NO. 23:

If your answer to the preceding interrogatory is other than an unqualified "yes," for all such components that have not been so reviewed state:

- (a) their identity and locations;
- (b) the vendor or vendors;
- (c) the reason for their exclusion from review;
- (d) the identity of the person responsible for the decision to exclude them.

RESPONSE TO INTERROGATORY NO. 23:

Not applicable.

INTERROGATORY NO. 24:

Has the seismic design work of each and every design group in the design chain for each and every safety-related SS&C that was reviewed by the DCP been reviewed for the DE, DDE, and Hosgri earthquake since November 19, 1981?

RESPONSE TO INTERROGATORY NO. 24:

No.

INTERROGATORY NO. 25:

If your answer to the preceding interrogatory is other than an unqualified "yes," for each safety-related SS&C that was not reviewed for all three earthquakes state:

- (a) the identity and locations of the SS&Cs, and the identity of the design groups whose work was not reviewed;
- (b) for which of the three earthquakes it was not reviewed;
- (c) the reason for its exclusion from review for the decision to exclude it.

RESPONSE TO INTERROGATORY NO. 25:

- (a) Electrical raceway supports.
- (b) DE.
- (c) This is consistent with the licensing commitments as stated in the Hosgri Report and the FSAR.

INTERROGATORY NO. 26:

Has the seismic qualification of all safety-related procured components that were reviewed by the DCP been reviewed for the DE, DDE, and Hosgri earthquake?

RESPONSE TO INTERROGATORY NO. 26:

Yes.



INTERROGATORY NO. 27:

If your answer to the preceding interrogatory is other than an unqualified "yes," for all such components that have not been so reviewed state:

- (a) their identity and locations;
- (b) the vendor or vendors;
- (c) for which of the three earthquakes they were not reviewed;
- (d) the reason for their exclusion from review for that earthquake;
- (e) the identity of the person responsible for the decision to exclude them.

RESPONSE TO INTERROGATORY NO. 27:

Not applicable.

INTERROGATORY NO. 28:

Has the nonseismic design work of each and every design group in the design chain for each and every safety-related SS&C been reviewed by the DCP since November 19, 1981?

RESPONSE TO INTERROGATORY NO. 28:

No.

INTERROGATORY NO. 29:

If your answer to the preceding interrogatory is other than an unqualified "yes," for all safety-related SS&Cs that have not been reviewed state:



- (a) the identity and locations of the SS&Cs, and the identity of the design groups whose work was not reviewed;
- (b) the reason for their exclusion from review;
- (c) the identity of the person responsible for the decision to exclude them.

RESPONSE TO INTERROGATORY NO. 29:

- (a) The work reviewed is identified in the PG&E Phase II Final Report, Design Verification Program, June 1983, and in the IDVP's Final Report, 1983.
- (b)&(c) The November 19, 1981 NRC letter from Harold Denton required review of non-seismic design activities by an independent contractor as part of an independent verification program.

INTERROGATORY NO. 30:

How did Westinghouse define "safety-related" for purposes of compliance with Appendix B to Part 50 of 10 C.F.R. for all SS&Cs supplied by Westinghouse and used at Diablo Canyon?

RESPONSE TO INTERROGATORY NO. 30:

Westinghouse historically defined the term "safety-related" with respect to Diablo Canyon in the same manner as PG&E. See response to Interrogatory No. 9.

INTERROGATORY NO. 31:

How did Westinghouse define "important-to-safety" for purposes of compliance with General Design Criterion 1 of

Appendix A to Part 50 of 10 C.F.R. for all SS&Cs supplied by Westinghouse and used at Diablo Canyon?

RESPONSE TO INTERROGATORY NO. 31:

Westinghouse historically defined the term "important-to-safety" with respect to Diablo Canyon in the same manner as PG&E. See response to Interrogatory No. 9.

INTERROGATORY NO. 32:

If your answer to any of the preceding interrogatories applies differently to Unit 1 and Unit 2 of Diablo Canyon, identify the interrogatory and explain how the answer differs for Unit 1 and Unit 2.

RESPONSE TO INTERROGATORY NO. 32:

With the exception of Interrogatory No. 29, the answers to the preceding interrogatories apply to Diablo Canyon Units 1 and 2 the IDVP program is not applied directly to Unit 2.

INTERROGATORY NO. 33:

Identify each and every person on whom you relied for the rendition of expert advice on matters pertaining to statistics and probability theory and give the qualifications of each.

RESPONSE TO INTERROGATORY NO. 33:

PG&E objects to this interrogatory on the grounds that

the information it seeks is not relevant to and exceeds the limited scope of this proceeding, which, by Appeal Board order, is to inquire into design quality assurance at Diablo Canyon Power Plant. As a regulated public utility appearing before both federal and state rate-making bodies, PG&E, for years, has relied upon expert advice in matters pertaining to statistics and probability theory. For example, PG&E has engaged historically in such activities as load projections, growth projections, income projections, all of which are irrelevant to this proceeding. Thus it is impossible to comply with this request since this activity has been conducted for many years.

INTERROGATORY NO. 34:

Identify the person or persons referred to at page 3.5-8 of the IDVP Final Report as having been retained by the DCP to conduct a statistical evaluation, and provide the qualifications of each.

RESPONSE TO INTERROGATORY NO. 34:

Dr. Stanley Kaplan has been retained to evaluate the applicability of statistical sampling methods to the design verification process. Dr. Kaplan's resume is attached.

INTERROGATORY NO. 35:

With respect to the statistical evaluation described in the preceding interrogatory, state:

- (a) The scope of the evaluation.
- (b) The schedule for the conduct of the evaluation.

- (c) The results of the evaluation to date.
- (d) The nature of all work remaining to be done in connection with the evaluation.
- (e) The identity of each and every person, excluding clerical personnel, who participated in the evaluation and the nature of the work each performed.

RESPONSE TO INTERROGATORY NO. 35:

- (a) An evaluation is being made of the applicability of statistical sampling methods to the design verification process. It includes an attempt to apply the statistical method to the IDVP, thus bringing into focus the merits and limitations of this approach, and a clarification of what can and cannot be learned from the approach.
- (b) The work is scheduled for completion in August 1983.
- (c) A conceptual framework for the evaluation has been proposed through meetings and discussions between Dr. Kaplan and the Diablo Canyon Project. Dr. Kaplan has reviewed the DCP and IDVP Final Reports. No numerical work has been done at this time.
- (d) The remaining work includes completion of the evaluation described in (a) above, including qualitative discussions and numerical calculations based on the results of the IDVP, as reported in the June 30, 1983, submittal of the IDVP Final Report and the PG&E Phase II Final Report, dated June, 1983.
- (e) No additional consultation or participation is anticipated at this time.

(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report  
June 28, 1968

(ii) Amendment 4 to the above document dated  
July 10, 1969.

FOR INTERROGATORY NO. 3

(a) Response prepared by:

(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report  
June 28, 1968

(ii) Amendment 4 to the above document dated  
July 10, 1969.

INTERROGATORY NO. 36:

For each of the preceding interrogatories, state separately for each interrogatory:

- (a) the identity of each and every person who participated in its answer;
- (b) the identity of each and every document relied upon in preparing the answer.

RESPONSE TO INTERROGATORY NO. 36:

FOR INTERROGATORY NO. 1

- a) Response prepared by:
  - (i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company.
- (b) Documents relied upon were:
  - (i) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report  
June 28, 1968
  - (ii) Amendment 4 to the above document dated  
July 10, 1969.

FOR INTERROGATORY NO. 2

- (a) Response prepared by:

(iii) Units 1 and 2  
Diablo Canyon site  
Pacific Gas and Electric Company  
Final Safety Analysis Report  
September 28, 1973

FOR INTERROGATORY NO. 4

(a) Response prepared by:

(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report  
June 28, 1968
- (ii) Amendment 4 to the above document dated  
July 10, 1969.
- (iii) Units 1 and 2  
Diablo Canyon site  
Pacific Gas and Electric Company  
Final Safety Analysis Report  
September 28, 1973



FOR INTERROGATORY NO. 5

(a) Response prepared by:

- (i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A



FOR INTERROGATORY NO. 6

(a) Response prepared by:

- (i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 7

(a) Response prepared by:

- (i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 8

(a) Response prepared by:

- (i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 9

(a) Response prepared by:

(i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report

(ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report

(iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report

(iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967

(v) 10 CFR 50, Appendix A

(vi) 10 CFR 50, Appendix B

(vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 10

(a) Response prepared by:

(i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 11

(a) Response prepared by:

(i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 12

(a) Response prepared by:

- (i) John B. Hoch  
Project Manager  
Diablo Canyon Units 1 and 2  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Units 1 and 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Final Safety Analysis Report
- (ii) Nuclear Unit 1  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iii) Nuclear Unit 2  
Diablo Canyon Site  
Pacific Gas and Electric Company  
Preliminary Safety Analysis Report
- (iv) General Design Criteria for Nuclear Power Plant  
Construction Permits, AEC, 1967
- (v) 10 CFR 50, Appendix A
- (vi) 10 CFR 50, Appendix B
- (vii) 10 CFR 100, Appendix A

FOR INTERROGATORY NO. 13

(a) Response prepared by:

- (i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Amendment 4, dated July 10, 1969, to the Nuclear  
Unit 2, Diablo Canyon Site, PSAR

(ii) Units 1 and 2

Diablo Canyon Site

Final Safety Analysis Report

September 28, 1973

(iii) Amendment 25, dated January 30, 1975, to the  
Diablo Canyon Site, Final Safety Analysis Report.

FOR INTERROGATORY NO. 14

(a) Response prepared by:

(i) Thomas G. de Uriarte

Senior Engineer, Auditing

Quality Assurance Department

Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Amendment 4, dated July 10, 1969, to the Nuclear  
Unit 2, Diablo Canyon Site, PSAR

(ii) Units 1 and 2

Diablo Canyon Site

Final Safety Analysis Report

September 28, 1973

(iii) Amendment 25, dated January 30, 1975, to the  
Diablo Canyon Site, Final Safety Analysis Report.

FOR INTERROGATORY NO. 15

(a) Response prepared by:



(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Amendment 4, dated July 10, 1969, to the Nuclear  
Unit 2, Diablo Canyon Site, PSAR

(ii) Units 1 and 2  
Diablo Canyon Site  
Final Safety Analysis Report  
September 28, 1973

(iii) Amendment 25, dated January 30, 1975, to the  
Diablo Canyon Site, Final Safety Analysis Report.

FOR INTERROGATORY NO. 16

(a) Response prepared by:

(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Amendment 4, dated July 10, 1969, to the Nuclear  
Unit 2, Diablo Canyon Site, PSAR

(ii) Units 1 and 2  
Diablo Canyon Site  
Final Safety Analysis Report  
September 28, 1973

- (iii) Amendment 25, dated January 30, 1975, to the  
Diablo Canyon Site, Final Safety Analysis Report.

FOR INTERROGATORY NO. 17

(a) Response prepared by:

- (i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Amendment 4, dated July 10, 1969, to the Nuclear  
Unit 2, Diablo Canyon Site, PSAR
- (ii) Units 1 and 2  
Diablo Canyon Site  
Final Safety Analysis Report  
September 28, 1973
- (iii) Amendment 25, dated January 30, 1975, to the  
Diablo Canyon Site, Final Safety Analysis Report.
- (iv) Revision 1, dated August 15, 1977, to PG&E's  
Quality Assurance Department Procedure 17.1,  
"Personnel Qualification Records", approved by the  
Director, Quality Assurance.
- (v) Letter dated January 22, 1983, from P. A. Crane of  
PG&E to R. L. Tedesco of the USNRC.

FOR INTERROGATORY NO. 18

(a) Response prepared by:

(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Amendment 4, dated July 10, 1969, to the Nuclear Unit 2, Diablo Canyon Site, PSAR
- (ii) Units 1 and 2  
Diablo Canyon Site  
Final Safety Analysis Report  
September 28, 1973
- (iii) Amendment 25, dated January 30, 1975, to the Diablo Canyon Site, Final Safety Analysis Report.
- (iv) Revision 1, dated August 15, 1977, to PG&E's Quality Assurance Department Procedure 17.1, "Personnel Qualification Records", approved by the Director, Quality Assurance.
- (v) Letter dated January 22, 1983, from P. A. Crane of PG&E to R. L. Tedesco of the USNRC.

FOR INTERROGATORY NO. 19

(a) Response prepared by:

(i) Thomas G. de Uriarte  
Senior Engineer, Auditing  
Quality Assurance Department  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Amendment 4, dated July 10, 1969, to the Nuclear Unit 2, Diablo Canyon Site, PSAR
- (ii) Units 1 and 2  
Diablo Canyon Site  
Final Safety Analysis Report  
September 28, 1973
- (iii) Amendment 25, dated January 30, 1975, to the Diablo Canyon Site, Final Safety Analysis Report.
- (iv) Revision 1, dated August 15, 1977, to PG&E's Quality Assurance Department Procedure 17.1, "Personnel Qualification Records", approved by the Director, Quality Assurance.
- (v) Letter dated January 22, 1983, from P. A. Crane of PG&E to R. L. Tedesco of the USNRC.

FOR INTERROGATORY NO 20

(a) Response prepared by:

- (i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation
- (ii) Dr. William H. White  
Assistant Project Engineer, Seismic  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

- (i) Pacific Gas and Electric Company  
Phase I Final Report  
Design Verification Program

FOR INTERROGATORY NO. 21

(a) Response prepared by:

- (i) Not Applicable

(b) Documents relied upon were:

- (i) Not Applicable

FOR INTERROGATORY NO. 22

(a) Response prepared by:

- (i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation
- (ii) Dr. William H. White  
Assistant Project Engineer, Seismic  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation
- (iii) Gary H. Moore  
Project Engineer Unit 1  
Diablo Canyon Project  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Pacific Gas and Electric Company  
Phase I Final Report  
Design Verification Program

FOR INTERROGATORY NO. 23

(a) Response prepared by:

- (i) Not Applicable

(b) Documents relied upon were:

Not Applicable

FOR INTERROGATORY NO. 24

(a) Response prepared by:

- (i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation
- (ii) Dr. William H. White  
Assistant Project Engineer, Seismic  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

- (i) Pacific Gas and Electric Company  
Phase I Final Report  
Design Verification Program

FOR INTERROGATORY NO. 25

(a) Response prepared by:

- (i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation
- (ii) Dr. William H. White  
Assistant Project Engineer, Seismic  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

None

FOR INTERROGATORY NO. 26

(a) Response prepared by:

- (i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation
- (ii) Gary H. Moore  
Project Engineer Unit 1  
Diablo Canyon Project  
Pacific Gas and Electric Company

(iii) Dr. William H. White  
Assistant Project Engineer, Seismic  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

(i) Pacific Gas and Electric Company  
Phase I Final Report  
Design Verification Program

INTERROGATORY NO. 27

(a) Response prepared by:

(i) Not Applicable.

(b) Documents relied upon were:

(i) Not Applicable.

FOR INTERROGATORY NO. 28

(a) Response prepared by:

(i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(ii) Gary H. Moore  
Project Engineer Unit 1  
Diablo Canyon Project  
Pacific Gas and Electric Company



(b) Documents relied upon were:

- (i) Pacific Gas and Electric Company  
Phase II Final Report  
Design Verification Program  
June, 1983
- (ii) Diablo Canyon Nuclear Power Plant - Unit 1  
Final Report  
Independent Design Verification Program, 1983

FOR INTERROGATORY NO. 29

(a) Response prepared by:

- (i) Richard C. Anderson  
Engineering Manager  
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San Francisco Power Division  
Bechtel Power Corporation
- (ii) Gary H. Moore  
Project Engineer Unit 1  
Diablo Canyon Project  
Pacific Gas and Electric Company

(b) Documents relied upon were:

- (i) Pacific Gas and Electric Company  
Phase II Final Report  
Design Verification Program  
June, 1983

(ii) Diablo Canyon Nuclear Power Plant - Unit 1

Final Report

Independent Design Verification Program, 1983

FOR INTERROGATORY NO. 30

(a) Response prepared by:

(i) John B. Hoch

Project Manager

Diablo Canyon Units 1 and 2

Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) DCPD Units 1 and 2 FSAR

(ii) 10 CFR 50, Appendix A

FOR INTERROGATORY NO. 31

(a) Response prepared by:

(i) John B. Hoch

Project Manager

Diablo Canyon Units 1 and 2

Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) DCPD Units 1 and 2 FSAR

(ii) 10 CFR 50, Appendix A

FOR INTERROGATORY NO. 32

(a) Response prepared by:

(i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(ii) Gregory V. Cranston  
Project Engineer Unit 2  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

(i) None

FOR INTERROGATORY NO. 33

(a) Response prepared by:

(i) D. G. Lubbock  
Attorney  
Pacific Gas and Electric Company

(b) Documents relied upon were:

(i) Memorandum and Order dated April 21, 1983

FOR INTERROGATORY NO. 34

(a) Response prepared by:

(i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

(i) None

FOR INTERROGATORY NO 35

(a) Response prepared by:

(i) Richard C. Anderson  
Engineering Manager  
Diablo Canyon Project  
San Francisco Power Division  
Bechtel Power Corporation

(b) Documents relied upon were:

(i) None

Respectfully submitted,

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By: Richard F. Locke  
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DATED: July 25, 1983.

## NAME

STANLEY KAPLAN

## EDUCATION

Senior Post-Doctoral Fellowship, University of Southern California, 1967-1969.

Ph.D., Mechanical Engineering and Applied Mathematics, University of Pittsburgh, 1960. Post-doctoral courses in mathematics at the University of Pittsburgh and Carnegie Institute of Technology, 1960-1965.

M.S., Mechanical Engineering, University of Pittsburgh, 1958.

Graduate of the Oak Ridge School of Reactor Technology, 1955.

B.S., Civil Engineering, City College of New York, 1954.

## PROFESSIONAL EXPERIENCE

### General Summary

Mathematician and engineer well known for contributions to risk analysis and reliability theory, reactor physics, kinetics, and computational technique. Specializes in probabilistic methodology; decision theory; risk analysis; and, particularly, applications of Bayes' theorem. In this connection has worked specifically and recently on developing probabilistic and decision theoretic treatments of various phases of the energy business. Included here are PRA analyses of several existing nuclear plants, hazardous material transportation and storage, spent fuel pools, aircraft impact, offshore oil drilling (environmental risk), underground oil storage, pipelines, and tarsands projects (business and construction risk). Developer of the DPD method for probabilistic calculations, the two-stage Bayesian technique for data analysis, the "set of triplets," "probability of frequency," "cause table," and "environmental table" concepts in risk analysis. Originator of the Matrix Theory of Event Trees and DPD approach to seismic risk analysis.

### Chronological Summary

1977-Present	President, Kaplan & Associates, Inc., a consulting firm specializing in risk analysis and applied decision theory.  Concurrently Adjunct Professor, Department of Chemical, Nuclear and Thermal Engineering, University of California, Los Angeles, and Associate Consultant, Pickard, Lowe and Garrick, Inc.
1975-1977	Private consultant specializing in risk analysis and decision theory.
1972-1975	Holmes & Narver, Inc., Anaheim, California. Director, Advanced Technology Division; Director, Systems Sciences Division; Technical Director, Nuclear & Systems Sciences Group.

- 1971-1972      Director of Software Development, COMARC Design Systems, Inc., San Francisco, California.
- 1969-1971      Product Manager and Senior Staff Member, Computer Sciences Corporation, Los Angeles, California.
- 1967-1969      Special Research Fellow, U.S. Public Health Service at University of Southern California, Los Angeles.
- 1955-1967      Westinghouse Bettis Atomic Power Laboratory, West Mifflin, Pennsylvania.  
Experimentalist, Experimentalist in Charge, Scientist, Senior Scientist, Fellow Scientist, Advisory Scientist.
- 1954            Lecturer, Department of Civil Engineering, City College of New York.
- 1962-1967      Concurrently Adjunct Professor of Mechanical Engineering, University of Pittsburgh; Lecturer, Department of Mathematics, Carnegie Institute of Technology.

MEMBERSHIPS, PAST OR PRESENT

American Society of Civil Engineers.  
American Nuclear Society.  
Society of Industrial and Applied Mathematics.  
New York Academy of Sciences.

PUBLICATIONS

Kaplan, S., "On a 'Two-Stage' Bayesian Procedure for Determining Failure Rates from Experiential Data," PLG-0191, IEEE Transactions on Power Apparatus and Systems, Vol PAS-102, No. 1, January 1983.

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Kaplan, S., B. J. Garrick, and G. Apostolakis, "Advances in Quantitative Risk Assessment - The Maturing of a Discipline," IEEE Transactions on Nuclear Science, NS-28, No. 1, February 1981.

Kaplan, S., and B. J. Garrick, "Some Misconceptions About Misconceptions," Letter to the Editor, Risk Analysis, Vol. 1, No. 4, December 1981.

Apostolakis, G., S. Kaplan, B. J. Garrick, and R. J. Duphily, "Data Specialization for Plant Specific Risk Studies," Nuclear Engineering and Design, Vol. 56, 321-239 (1980).

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Garrick, B. J., and S. Kaplan, "Reliability Technology and Nuclear Power," IEEE Transactions on Reliability, Special issue on Nuclear Systems Reliability and Safety, Vol. R-25, No. 3, August 1976.



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Kaplan, S., A. F. Henry, S. G. Margolis, and J. J. Taylor, "Space-Time Reactor Dynamics," Proceedings, Third United Nations International Conference on the Peaceful Uses of Atomic Energy, Geneva (1964).

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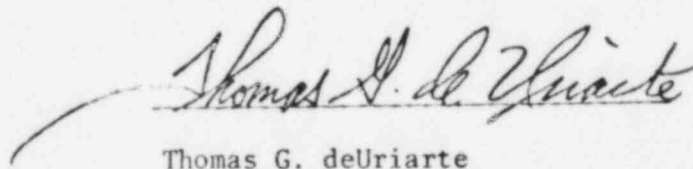
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SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 1 - 4 and 13 - 19 inclusive.  
Said answers are true and correct to the best of my knowledge  
and belief.

  
Thomas G. deUriarte

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

C. T. Neal Madison  
C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California



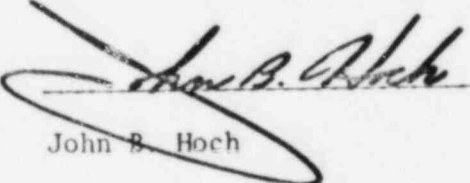
My Commission expires December 27, 1985



SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 5 through 12, 30, and 31.  
Said answers are true and correct to the best of my knowledge  
and belief.

  
John B. Hoch

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California

My Commission expires December 27, 1985

SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 20, 22, 24, 25, 26, 28, 29, 32, 34 and 35.  
Said answers are true and correct to the best of my knowledge  
and belief.

*Richard C Anderson*

Richard C. Anderson

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

*C. T. Neal Madison*

C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California



My Commission expires December 27, 1985



SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 20, 22, 24, 25, and 26.

Said answers are true and correct to the best of my knowledge  
and belief.

William H. White

Dr. William H. White

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

C. T. Neal Madison

C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California

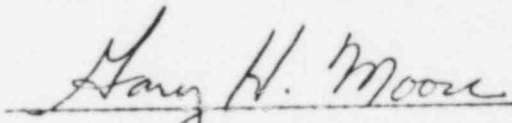


My Commission expires December 27, 1985

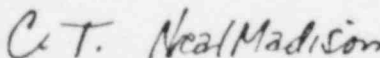
SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 22, 26, 28, and 29.  
Said answers are true and correct to the best of my knowledge  
and belief.

  
\_\_\_\_\_  
Gary H. Moore

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

  
\_\_\_\_\_  
C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California



My Commission expires December 27, 1985

SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 32.  
Said answers are true and correct to the best of my knowledge  
and belief.

---

Gregory V. Cranston

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California

My Commission expires December 27, 1985

SECOND SET OF INTERROGATORIES  
PROPOUNDED TO PACIFIC GAS AND ELECTRIC COMPANY  
BY GOVERNOR DEUKMEJIAN

---

I have assisted in preparing the answers to  
Interrogatories 33.

Said answers are true and correct to the best of my knowledge  
and belief.

*D. G. Lubbock*

D. G. Lubbock

Subscribed and sworn to  
before me this 25th day  
of July, 1983.

*C. T. Neal Madison*

C. T. Neal Madison, Notary Public  
in and for the City and County  
of San Francisco, State of  
California



My Commission expires December 27, 1985

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
)  
)

PACIFIC GAS AND ELECTRIC COMPANY )  
)  
)

Diablo Canyon Nuclear Power Plant, )  
Units 1 and 2 )  
)

Docket No. 50-275

Docket No. 50-323

CERTIFICATE OF SERVICE

The foregoing document(s) of Pacific Gas and Electric Company has (have) been served today on the following by deposit in the United States mail, properly stamped and addressed:

Judge John F. Wolf  
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US Nuclear Regulatory Commission  
Washington DC 20555

Judge Glenn O. Bright  
Atomic Safety and Licensing Board  
US Nuclear Regulatory Commission  
Washington DC 20555

Judge Jerry R. Kline  
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Chairman  
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US Nuclear Regulatory Commission  
Washington DC 20555

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Judge W. Reed Johnson\*  
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Washington DC 20555

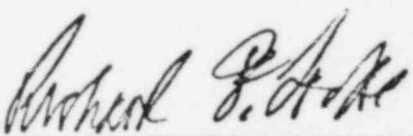
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\* Sent by Courier on July 25, 1983.

Date: July 25, 1983

  
\_\_\_\_\_  
Pacific Gas and Electric Company