STONE & WEBSTER ENGINEERING CORPORATION

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Mr. G.A. Maneatis, Senior Vice President
Facilities Development
Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94106

November 29, 1982
J.O. No. 14296
DCS-173

Mr. H.R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20114

Mr. R.H. Engelken, Regional Administrator
Region V
U.S. Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, CA 94956

Docket No. 50-275
Diablo Canyon Unit 1
License No. DPR-76

Dear Sirs:

LOAD PROFILE CALCULATIONS 4160 V SAFETY-RELATED SYSTEMS
TELEDYNE ENGINEERING SERVICES
DIABLO CANYON NUCLEAR POWER PLANT - UNIT 1

The documentation listed below is being provided to PG&E in response to their request DCVP-SWEC-228. It should be noted that calculations performed by SWEC as part of the IDVP are not necessarily calculations of the detail usually performed to establish specific design parameters. In many cases the calculations are "go- no go" calculations to establish whether DCNPP-1 licensing commitments were satisfied. As such, simplifying assumptions may have been used or calculations may not have been taken to completion to establish SWEC conclusions as to whether DCNPP-1 licensing commitments were satisfied.

The material provided may contain information which is considered proprietary by Westinghouse Electric Corporation. The documents are provided specifically for use in the DCNPP-1 IDVP and are not to be used for design or construction.

Steady State Load Flow fed from 230 KV Grid - Data Table Listing
Steady State Load Flow fed from 230 KV Grid, dated 9/21/82.
Start Circ. Water Pump - feeding from 230 KV Grid, dated 10/1/82.
Start Condensate Booster Pump and 1250 HP Cond., dated 10/1/82.
Start 2nd Cont. Cooling Fan, dated 10/1/82.
Accident Loading Loadflow Feed from 230 KV Grid, dated 9/21/82.
Transfer to 230 KV Grid - Start Both Circ. Water Pump, dated 10/1/82.
Transfer to 230 KV Grid - Restart 4 KV Motors, dated 10/1/82.

Very truly yours,

John E. Krechting

J.E. Krechting
Project Engineer, Diablo Canyon Nuclear Power Plant

no enclosures

STONE & WEBSTER ENGINEERING CORPORATION
P. O. BOX 2325, BOSTON, MASSACHUSETTS 02107

DATE	November 22, 1982
J. O. NO.	14296
P. O. NO.	
LTR. NO.	DCS-167
REF.	

VIA

TO
Mr. R. R. Fray
Bechtel Power Corporation
45 Fremont Street
23rd Floor, Section A17
San Francisco, CA 94105

DEAR SIRS:

THE FOLLOWING ARE [X] ATTACHED: [ ] SENT SEPARATELY:

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SUPPORTING INFORMATION FOR OPEN ITEM REPORTS
TELEDYNE ENGINEERING SERVICES
DIABLO CANYON NUCLEAR POWER PLANT - UNIT 1

The documentation listed below are transmitted in response to your request DCVP - SWEC - 232. It should be noted that calculations performed by SWEC as part of the IDVP are not necessarily calculations of the detail usually performed to establish specific design parameters. In many cases the calculations are "go-no go" calculations to establish whether DCNPP-1 licensing commitments were satisfied. As such, simplifying assumptions may have been used or calculations may not have been taken to completion to establish SWEC conclusions as to whether DCNPP-1 licensing commitments were satisfied.
(Continued on Page 2 of 2).

Very truly yours,

John E. Krechting

J. Krechting
Project Engineer, Diablo Canyon Nuclear Power Plant

Copies to:
WECooper
JHSchierling no enclosure
HHBrown
DFleischaker
JReynolds
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continued from Page 1 of 2.

The material provided may contain information which is considered proprietary by Westinghouse Electric Corporation. The documents are provided specifically for use in the DCNPP-1 IDVP and are not to be used for design or construction. The documents provided contain information and results which were calculated using the SWEC proprietary computer program THREED.

SWEC Calculation No.

14296	US (B)	1
14296	US (B)	2
14296	US (B)	3
14296	US (B)	4
14296	US (B)	5
14296	US (B)	6

STONE & WEBSTER ENGINEERING CORPORATION
P. O. BOX 2325, BOSTON, MASSACHUSETTS 02107

DATE	November 19, 1982
J. O. NO.	14296
P. O. NO.	
LTR. NO.	DCS-145
REF.	

VIA

TO Mr. R. R. Fray
Bechtel Power Corporation
45 Freemont Street
23rd Floor, Section A17
San Francisco, CA 94105

DEAR SIRS:

THE FOLLOWING ARE [X] ATTACHED: [ ] SENT SEPARATELY:

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SUPPORTING INFORMATION FOR OPEN ITEM REPORTS
TELEDYNE ENGINEERING SERVICES
DIABLO CANYON NUCLEAR POWER PLANT - UNIT 1

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(Continued on page 2 of 2).

Very truly yours,

John E. Krechting

J. Krechting
Project Engineer, Diablo Canyon Nuclear Power Plant

Copies to:
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EOI Reference No.	S&W Package No.	Page No.
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8010	P-1-16	16-1 to 16-25
8015	P-1-25	25-1 to 25-21
8031	P-1-31	31-H-1 to 31-H-40

TELEDYNE
ENGINEERING SERVICES
130 SECOND AVENUE
WALTHAM, MASSACHUSETTS 02254
(617) 890-3350 TWX (710) 324-7580

Hans Schell

UNCONTROLLED COPY

October 29, 1982
5511-185

Mr. H. H. Brown, Esq.
Kirkpatrick, Lockhart, Hill, Christopher, & Phillips
1900 M Street, N.W.
Washington, D.C. 20036

Subject: Response to H. H. Brown Letter of October 12, 1982

Dear Mr. Brown:

Dr. Cooper, as Project Manager for the DCNPP-IDVP, has reviewed your request and asked that I respond as follows.

The referenced letter requests:

1. An explanation of the process and chronology of events by which Teledyne discussed with PG&E, Bechtel, Stone and Webster, and/or others the subject of a Construction Quality Assurance (CQA) review of Diablo Canyon.

2. An explanation of the process and nature of negotiations and discussions with PG&E, Bechtel, and/or others pursuant to which Teledyne undertook to perform such review.

3. Copies of any correspondence Teledyne has had with PG&E, Bechtel, Stone and Webster, and/or others concerning the foregoing, including particularly any materials related to the scope and content of the Construction QA Program.

4. Copies of Teledyne's contracts and subcontracts with PG&E and/or others for the Construction QA program.

5. An explanation of the relationship between Teledyne and Stone and Webster regarding the CQA program, and copies of any correspondence and agreements with Stone and Webster.

Our responses are intended to be clarifications as intended by Mr. Denton's letter of September 29, 1982, to the extent that your requests pertain to information in the public domain. Mr. Denton's letter exempts communications solely with respect to financial and administrative aspects. In the main, the responses are based upon our public statements

made on September 1, October 7, and October 19-20, 1982 and the public correspondence between the various parties. Before responding to the specific questions, a clarification with respect to the second paragraph of the reference letter may be helpful. That paragraph appears to place a different connotation on the term "adjunct", as in the title "Adjunct Program for Evaluation of Construction Quality Assurance", than was intended. The quoted Webster definition of adjunct contained on the first text page of the CQA Program Plan is: "Something joined or added to another thing but not essentially a part of it." The CQA program is the "something", the Phase II IDVP is the "another thing", and the first is not "essentially a part" of the second because the CQA program is not required by the NRC Letter to which Phase II responds. Instead, the CQA has been volunteered by PG&E and the IDVP has "joined or added" the volunteered technical work to Phase II for purposes of program management. CQA is an adjunct, not a collateral program.

The following chronological presentation is intended to be responsive to the first two of your requests, and covers the third because the public correspondence identified is already available to you.

1. TES' first knowledge of CQA was a telecon from Mr. Maneatis to Dr. Cooper the evening of August 30, 1982. Mr. Maneatis stated that PG&E was considering volunteering the CQA program in the meeting with NRC to be held on September 1, 1982 and requested that Dr. Cooper visit with Mr. Maneatis on his arrival in San Francisco on the afternoon of August 31, 1982. There was also a brief discussion of the details discussed in the next item.

2. Dr. Cooper visited with Mr. Maneatis on the afternoon of August 31, 1982. Mr. Maneatis gave Dr. Cooper a copy of the Region V memo to Mr. Denton dated March 29, 1982 identifying the Region V concern, stated that the decision had been made to volunteer a program in response to item 3 of the Region V memo, and stated the PG&E desire to place this program under IDVP Management. Dr. Cooper responded that the IDVP would accept the management of the CQA program if PG&E would fully define the scope they were volunteering, if the work could be conducted by Stone and Webster Engineering Corporation (SWEC) as an active and qualified IDVP participant, if TES and SWEC found nothing disagreeable about the proposed scope, and if the CQA work could be conducted in accordance with the IDVP program management plan.

3. On the basis of their decision and the IDVP willingness to manage the program, the CQA program was announced by Mr. Maneatis at the meeting with the NRC on September 1, 1982 (Tr. p. 10-11).

4. PG&E (Crane) advised NRC (Eisenhut) by letter dated September 7, 1982 that PG&E was proceeding to implement the proposal that a CQA program be conducted as part of Phase II of the IDVP.

5. The next significant result from this process was TES submittal (letter 5511-149 dated September 25, 1982) for PG&E approval and NRC information and comments of a Program Plan for Construction Quality Assurance. The process used to develop this submittal followed that implied by item 2:

   a. DCP telecopied a Preliminary Program Description to TES on September 2, 1982. TES reviewed this document, found it to be reasonable, and hand carried a copy to SWEC for their review in preparation for a meeting the following day.

   b. On the morning of September 8, 1982 Messrs. Maneatis and Friend visited TES for the purpose of discussing the CQA concept, and other administrative aspects. The term "adjunct" was developed during this discussion to distinguish the CQA aspects from those covered by the NRC Phase II letter. On that afternoon, Messrs. Maneatis, Friend, Noriega and Cooper visited SWEC (Messrs. Wild, Kelley, Warren, Richardson, and Sestak) to review the proposed scope and integration into the IDVP program. Based upon this meeting, the IDVP agreed to accept the assignment, to prepare a program description adopting the PG&E-proposed scope, and to integrate the CQA with the Phase II program management plan.

   c. The CQA Program plan was developed in parallel by TES and by SWEC. The TES contribution primarily related to the management aspects of the CQA plan and became Sections 1.0, 2.0 (partial), and 4.0 - 7.0 of the plan. The SWEC contribution was developed in discussions with TES and with DCP (Sec. 5a), was provided to DCP on September 17, 1982 (TES letter 5511-131) as a Program Description which became Sections 2.0 (partial) and 3.0 of the CQA plan. In integrating the two documents, word changes were made by TES in the SWEC contribution concerning the treatment of Potential Findings to assure consistency with IDVP procedures.

6. PG&E approved the TES proposal with comments by letter of October 7, 1982, following verbal approval on October 5, 1982. On the latter date TES letter 5511-161 transmitted the CQA Program Plan to all parties.

With respect to the fourth and fifth requests of the referenced letter, TES considers these to address financial and administrative aspects outside of the scope of Mr. Denton's letter. However, it should be noted that the relationships between PG&E and/or Bechtel and the IDVP, and the relationships between TES and SWEC, are not changed by the existence of the CQA program.

TELEDYNE
ENGINEERING SERVICES

The addition of the CQA program to the IDVP in no way changes the independence of the IDVP.

Very truly yours,

TELEDYNE ENGINEERING SERVICES

Aldie E. Johnson, Jr., Vice President
Internal Services, Project 5511

AEJ:cjr

cc: W.E. Cooper
G.A. Maneatis
R.R. Fray
H.R. Denton
R. Engelken
H. Schierling
5511 Document Control