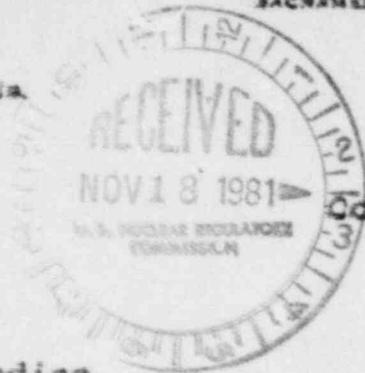




EDMUND G. BROWN JR.
GOVERNOR

(916) 445-2843



October 30, 1981



Nunzio J. Palladino
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Palladino:

I am writing in reference to the recent disclosures of design, construction, and quality assurance errors at the Diablo Canyon nuclear power plant. I ask that you and your fellow commissioners immediately order an independent audit of the earthquake protection and other safety-related features of this plant.

Your prompt action in this regard would serve not only the welfare of California and its citizens, but it would also be in the best interests of the NRC. PG&E and the NRC staff have in the past repeatedly asserted that Diablo Canyon met all requisite safety standards. The disclosures of serious errors by PG&E at Diablo -- disclosures made within the very week that you licensed operation of the plant -- have undermined the NRC's credibility. As a consequence, I submit that the public will simply not believe the results of any audit performed by PG&E or the NRC. Indeed, for such an investigation to be received with any credibility, it must be performed by a team of truly independent experts who have no stake, real or apparent, in the outcome.

Accordingly, I am enclosing with this letter a workable proposal for an independent audit that focuses on the quality of the actual design and construction of the Diablo Canyon plant.

California's citizens have every reason to expect that the NRC now take swift and decisive regulatory action to protect their health and safety. It is clear that the Commission made a mistake last month in licensing Diablo Canyon. I ask that you take action to rectify that mistake, and that you order an independent audit and revoke the PG&E license for low power testing.

Sincerely,

Edmund G. Brown Jr.
EDMUND G. BROWN JR.
Governor

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cc: Commissioners

October 29, 1981

MEMORANDUM



TO: Dr. Harold Denton
FROM: Counsel to Governor Brown
RE: Proposed Diablo Canyon Quality Verification Program

Since late September 1981, a number of serious errors in seismic design have been discovered at Diablo Canyon. These errors have primarily involved problems in the development, distribution, and use of design data by PG&E and its engineering services subcontractors. These errors were discussed at Commission and Staff meetings in Washington and at recent meetings with PG&E in San Francisco, California. As a result of these discussions and investigations, it is now clear that each error involved a failure of PG&E to implement properly the 18 quality assurance criteria of 10 C.F.R. Part 50, Appendix B.

Because PG&E failed to implement a Quality Assurance/Quality Control ("QA/QC") 1/ program which satisfies Part 50, Appendix B, and because this failure led to serious errors, 2/ there is now substantial uncertainty in the actual quality level achieved in design and construction of safety-related structures, systems, and components at Diablo Canyon. This uncertainty is heightened by the Staff's forthright statement, made in light of PG&E's QA/QC deficiencies and widely reported in the press,

1/ "Quality Assurance" comprises all those planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service. Quality assurance includes "Quality Control," which comprises those quality assurance actions related to the physical characteristics of a material, structure, component, or system which provide a means to control the quality of the material, structure, component, or system to predetermined requirements.

2/ The seriousness of these errors cannot be disputed. Indeed, Dr. Harold Denton stated that the low power license would not have been issued if these errors had been known to the Staff before the NRC issued the license. See Oct. 9 Meeting Transcript, p. 117.

that further analyses by experts will doubtless reveal further errors. 3/

The substantial uncertainty which surrounds the actual quality level achieved in design and construction of Diablo Canyon is clearly unacceptable under the licensing standards of the NRC's regulations. Governor Brown proposes, therefore, that the NRC immediately order that an independent quality verification program be undertaken and completed, prior to fuel loading at Diablo Canyon. 4/

The independent audit program proposed herein is not unique. Indeed, it is similar in concept to the "outgoing product quality" audit programs now used by the nation's nuclear equipment manufacturers. In such an audit, an "outgoing product quality" index is obtained by reconducting the acceptance tests and inspections on an equipment item that was previously accepted by QA as ready for shipment. The index is a useful management tool to confirm independently that the desired level of quality is actually being achieved.

The following general guidelines are suggested for an independent physical reinspection and design review of the Diablo Canyon QA/QC program for design, construction, and operation:

1. Selection of an Independent Auditor:

After consultation with all parties in the Diablo Canyon proceeding, the NRC should select an experienced QA/QC consultant to conduct the review. The consultant must not be an employee or contractor of PG&E, Westinghouse, or any other contractor having direct responsibility for the Diablo Canyon QA/QC program. Attached hereto for your consideration is a list of firms which appear to have the technical capability to conduct the type of review described herein. These firms, of course, must be screened to assure that they have no real or apparent conflict of interest in this matter.

3/ For example, the Wall Street Journal on October 26, 1981, quoted a Staff spokesman as stating: "Obviously, if one engineer can find a problem by accident, it is reasonable to assume that an army of engineers second-guessing everything can find many more."

4/ This proposal is separate from the need for the NRC to take straightforward licensing-related action that addresses the fact that the NRC mistakenly issued the low power license to PG&E.

2. Steering Committee:

The independent auditor should perform its services pursuant to the oversight of a Steering Committee. This Committee should be composed of four persons, each with expertise on quality assurance matters. One each should be selected by PG&E, the Staff, the Governor, and the Joint Intervenors.

3. Scope of Design Review and Physical Inspection:

The assessment of the Diablo Canyon QA/QC program by the independent auditor should include:

- (a) A review of QA/QC design records for, and a physical reinspection of, one electrical system (the reactor protection system is suggested) and two mechanical systems, including the structural supports, chosen from among the emergency core cooling systems (the safety injection and the decay heat removal systems are suggested). This review should cover:
 - (i) the designation of safety-related items to determine whether the systems, structures, and components have been properly classified;
 - (ii) the design verification records to assure the adequacy of design criteria bases, the adequacy of design implementation, including the internal and external transmittal, distribution, and use of design data, and the consistency between the design documents and the FFAR commitments;
 - (iii) training and qualification records for design, construction, and inspection personnel;
 - (iv) records concerning the identification and control of installed material, parts and components;
 - (v) records concerning the control of special construction processes;
 - (vi) records concerning the adequacy of disposition of non-conformances;

- (vii) records of corrective action measures and timely closeouts;
 - (viii) PG&E audit findings, follow-ups, and resolutions;
 - (ix) equipment qualification records;
 - (x) drawing change control procedures including implementation for field changes;
 - (xi) comparison of "as-built" drawings to actual plant configuration;
 - (xii) receiving inspection and test results;
 - (xiii) material certifications;
 - (xiv) concrete strength where applicable;
 - (xv) visual inspection of the systems, including welds;
 - (xvi) cable identification and separation;
 - (xvii) control panel functional test results;
 - (xviii) verification of the torque of bolts;
 - (xix) non-destructive test record interpretations;
 - (xx) the program for control of materials, parts and components for non-safety grade portions of the systems; and
 - (xxi) a determination of the adequacy of the PG&E and major contractors' QA/QC programs and their implementation based on all the above.
- (b) A comparison of the PG&E design and construction QA/QC program to NRC Regulatory Guides cited in the FSAR related to QA/QC activities.
- (c) A review of PG&E's operational QA/QC program, including:

- (i) the qualification of the Diablo Canyon QA/QC staff;
- (ii) the availability of QC personnel on off-shifts;
- (iii) the availability of "as-built" drawings;
- (iv) the selection of replacement materials and parts for safety-related items;
- (v) the applicability of the QA/QC program to replacement electrical and instrumentation components, modules, and equipment;
- (vi) the handling and installation of replacement parts and materials for safety-related items;
- (vii) the program for procurement of non-safety related replacement materials and parts; and
- (viii) a comparison of the PG&E operation QA/QC program to NRC Regulatory Guides cited in the FSAR related to QA/QC activities.

The Governor's consultants and counsel are prepared to discuss with the Staff further details in pursuit of the foregoing proposal. We believe that a satisfactory investigation of the errors at Diablo Canyon calls for a cooperative Federal-State working relationship between the NRC and California. Both levels of government have vital interests that are at stake in bringing about a sound resolution of this matter.

LIST OF SEVERAL POTENTIAL CONSULTANTS TO PERFORM
INDEPENDENT QUALITY VERIFICATION REVIEW OF DIABLO CANYON *

1. Energy, Inc.
P. O. Box 736
Idaho Falls, Idaho 83401
2. Gilbert Associates, Inc.
P. O. Box 1498
Reading, Pennsylvania 19603
3. Management Analysis Company
11100 Roselle Street
San Diego, California 92121
4. Project Assistance Corp.
1 Whale Row
New London, Connecticut 06320
5. Quadrex Corporation
1700 Dell Avenue
Campbell, California 95008
6. Technodyne Engineering Co.
333 Market Street
Suite 2735
San Francisco, California 94105
7. Teledine Engineering Corp.
303 Bear Hill Road
Waltham, Massachusetts 02154
8. Torrey Pines
(A Division of General Atomic Co.)
P. O. Box 81608
San Diego, California 92138
9. Universal Testing Laboratories, Inc.
579 Pompton Avenue
Cedar Grove, New Jersey 07009



* These are intended as suggestions only, not endorsements.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)

PACIFIC GAS AND ELECTRIC COMPANY)

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

) Docket Nos. 50-275 O.L.
) 50-323 O.L.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the letter of Governor Brown to Chairman Palladino, dated October 30, 1981, including the enclosure thereto, was served on the following by U.S. mail, first class, this 30th day of October, 1981, except as otherwise noted.

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Commissioner Victor Gilinsky *
Commissioner Peter A. Bradford *
Commissioner John F. Ahearne *
Commissioner Thomas Roberts *
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Mr. Thomas Moore, Chairman
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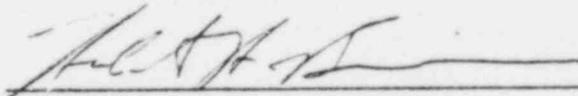
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October 30, 1981