

Pacific Gas and Electric Company

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December 21, 2001

PG&E Letter DIL-01-006

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

Docket No. 72-26 Diablo Canyon Independent Spent Fuel Storage Installation Submittal of Seismic Hazards Review Board Final Report

Dear Commissioners and Staff:

By letter dated December 21, 2001, Pacific Gas and Electric Company (PG&E) submitted an application to the Nuclear Regulatory Commission (NRC) requesting a site-specific license for an Independent Spent Fuel Storage Installation (ISFSI) at the Diablo Canyon Power Plant (DCPP). The application included a Safety Analysis Report, Environmental Report, and other required documents in accordance with 10 CFR 72.

An external, independent Seismic Hazards Review Board advised PG&E for the Diablo Canyon ISFSI Project. A final report from the Review Board is enclosed for use by the NRC in their review of the Diablo Canyon ISFSI license application.

The primary function of the Review Board, which consisted of individuals eminently qualified in the subject areas of interest, was to provide guidance to PG&E and its consultants to ensure that the objectives of the geology, seismology, earthquake engineering and related studies performed for the ISFSI site were achieved, and that relevant theories, analytical techniques, and other pertinent, newly developed information were appropriately considered. This function was accomplished through reviews of technical developments and results as they became available. The Review Board actively participated in development and evaluation of investigative methods, suggested priorities for work tasks, and reviewed work in progress.

The members of the Review Board and their affiliates are:

Clarence R. Allen Bruce A. Bolt

I. M. Idriss Robert P. Kennedy Geology and Tectonics, California Institute of Technology Engineering Seismology, University of California, Berkeley Earthquake Engineering, University of California, Davis Structural Engineering, Independent Consultant

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The PG&E technical staff and consultants that performed the geology and seismology work were chosen on the basis of their leadership in technological development and their experience in their respective areas of expertise, and familiarity with licensing of DCPP and similar industrial facilities. The overall responsibility for the geology and seismology work for the ISFSI site was under the direction of Lloyd S. Cluff, PG&E's Director, Geosciences Department. Other key PG&E and personnel included: Dr. William Savage and Marcia McLaren, Seismology; Dr. Norman Abrahamson, Engineering Seismology; Dr. William Page, Geology; and Robert White and Dr. Joseph Sun, Geotechnical Engineering.

Consultants to Geosciences included: William Lettis & Associates, Dr. William R. Lettis, Jeffrey L. Bachhuber, Charles M. Brankman, Robert Witter, and Scott C. Lindvall; Geomatrix Consultants, Dr. Faiz Makdisi, and URS (Woodward-Clyde) Corporation, Dr. Paul Somerville. Dr. Alfred J. Hendron and Dr. Dale R. Marcum completed independent peer reviews of the geology and slope stability evaluations.

If you have any questions regarding this report, please contact Mr. Terence Grebel at (805) 595-6382.

Sincerely.

Lawrence F. Womack

Enclosure

cc: Timothy J. Kobetz Ellis W. Merschoff David L. Proulx Girija S. Shukla David A. Repka Brian Gutherman Thomas A. Moulia Roy B. Willis Diablo Distribution w/o Enclosure

Enclosure



Enclosure PG&E Letter DIL-01-006

## FINAL REPORT – DIABLO CANYON ISFSI SEISMIC HAZARDS REVIEW BOARD

 Clarence R. Allen
 Bruce A Bolt

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Seismic Hazards Review Board Independent Spent Fuel Storage Installation – Diablo Canyon Nuclear Power Plant

December 13, 2001

Mr. Lloyd S. Cluff, Director Geosciences Department Pacific Gas and Electric Company P.O. Box 77000 Mail Code N4C San Francisco, CA 94177

## <u>Subject</u>: Final Report – Diablo Canyon ISFSI Seismic Hazards Review Board

Dear Mr. Cluff:

The Seismic Hazards Review Board for the Diablo Canyon ISFSI is pleased to submit its final report on the geologic, seismologic, geotechnical and structural studies carried out by PG&E and its consultants for the Diablo Canyon ISFSI site.

The Board members have participated, on a review and advisory basis, both as individual technical advisors and as a full Board. In the latter role, the full Review Board met formally on six occasions beginning in 1996, and three meetings during 2001. Each meeting was documented in minutes prepared by PG&E and in a report prepared and signed by the Board.

The Board's involvement in the project has been continuing and thorough, and included providing individual and collective review and judgments on the issues to be studied, on the approaches used to conduct and to evaluate the results of the studies, and on the conclusions reached by PG&E and its consultants.

In particular, the Board offers the following observations regarding these studies:

The Diablo Canyon ISFSI studies have been responsive to the technical advice provided by the Review Board.

Mr. Lloyd S. Cluff, Director Geosciences Department Pacific Gas and Electric Company

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The technical and analytical methods used throughout the investigative and assessment activities followed the best available approaches.

The conclusions reached, and the manner in which they have been developed and supported, have been thoroughly documented and are judged by the Review Board to be reasonable and appropriate.

The Board is fully satisfied that the scope and conduct of the studies have been highly professional, and that the talent brought together to carry out the program has been of the highest order of professional competence and experience in these special fields.

Respectfully submitted,

## SEISMIC HAZARDS REVIEW BOARD

Clarence R. Aller

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