



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 8, 2009

Mr. John T. Conway
Senior Vice President – Generation
and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 3, Mail Code 104/6/601
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON POWER PLANT, UNIT NOS. 1 AND 2 – NRC PRELIMINARY
REVIEW OF POTENTIAL SHORELINE FAULT (TAC NOS. ME0174 AND
ME0175)

Dear Mr. Conway:

On November 14, 2008, Pacific Gas and Electric (PG&E, the licensee) notified the U.S. Nuclear Regulatory Commission (NRC) that preliminary results from ongoing studies by PG&E and the U.S. Geological Survey (USGS) indicate that there is a zone of seismicity that could indicate the presence of a fault approximately 15 kilometers (km) in length, located approximately 1 km offshore from the Diablo Canyon Power Plant (DCPP). Subsequently, PG&E has informally referred to this zone of seismicity as the potential "Shoreline Fault." PG&E has been collaborating with the USGS to collect and analyze new geological, geophysical, and seismic data to develop improved tectonic models for the central California coastal region through the Collaborative Research and Development Agreement.

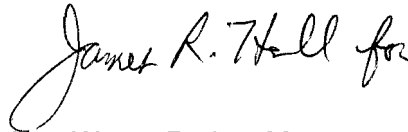
PG&E provided a status of this effort to the NRC staff during a November 21, 2008, conference call. PG&E informed the NRC staff that it had performed an initial evaluation of the potential ground motion levels at the DCPP from the hypothesized fault which concluded that these motions would be bounded by the ground motion levels previously determined for the current licensing basis (the larger Hosgri fault). In addition, the licensee stated that the tsunami hazard threat is relatively small since it is a strike-slip fault rather than a reverse fault and, therefore, the tsunami hazard from the potential new fault is not expected to exceed the plant's design-basis tsunami hazard levels. Based on the NRC staff review of the preliminary geophysical data provided by PG&E in preparation for the call and the licensee's preliminary analysis provided during the conference call, the NRC staff concluded that the current licensing basis is bounding and continues to support the safe operation of the DCPP site.

To further support the NRC's initial conclusions, the NRC staff undertook a preliminary independent review of possible implications of the potential Shoreline Fault to the DCPP using the initial information provided by USGS through PG&E. This review is documented in Research Information Letter (RIL) 09-001, "Preliminary Deterministic Analysis of Seismic Hazard at Diablo Canyon Nuclear Power Plant from Newly Identified 'Shoreline Fault'," and can be found in Agencywide Documents Access and Management System (ADAMS) Accession No. ML090330523.

The NRC staff's assessment indicates that the best estimate 84th percentile deterministic seismic-loading levels predicted for a maximum magnitude earthquake on the potential Shoreline Fault are below those levels for which the plant was previously analyzed in the Diablo Canyon Long-Term Seismic Program. Considering the results of the deterministic analyses as a whole and the current level of uncertainty, the NRC staff concludes that the postulated Shoreline Fault will not likely cause ground motions that exceed those for which the DCPD has already been analyzed. The NRC staff also concludes that the potential Shoreline Fault has a dominant strike-slip faulting mechanism. It is highly unusual for strike-slip faulting to cause the type of significant seafloor elevation change necessary to cause a sizable tsunami and so the NRC staff would not expect any significant changes in the tsunami hazard assessment. Therefore, based on the currently available information, the NRC staff concludes that the design and licensing basis evaluations of the DCPD structures, systems, and components are not expected to be adversely affected and the current licensing basis remains valid and supports continued operability of the DCPD site.

The NRC plans to inform stakeholders of this review and on its continuing review of this matter as additional information becomes available. If you have any questions regarding these evaluations, please contact me at 301-415-1445 or via e-mail at alan.wang@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Alan Wang" with a stylized flourish at the end.

Alan Wang, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

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The NRC plans to inform stakeholders of this review and on its continuing review of this matter as additional information becomes available. If you have any questions regarding these evaluations, please contact me at 301-415-1445 or via e-mail at alan.wang@nrc.gov.

Sincerely,

/RA by James R. Hall for/

Alan Wang, Project Manager
 Plant Licensing Branch IV
 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

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