



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

July 15, 2010

Mr. John Conway
Senior Vice President
Generation and Chief Nuclear Officer
Pacific Gas and Electric Company
77 Beale Street, MC B32
San Francisco, CA 94105

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE REVIEW OF
THE DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2, LICENSE
RENEWAL APPLICATION (TAC NOS. ME2896 AND ME2897) – SCOPING
AND SCREENING AND AGING MANAGEMENT REVIEW

Dear Mr. Conway:

By letter dated November 23, 2009, Pacific Gas & Electric Company submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), to renew the operating licenses for Diablo Canyon Nuclear Power Plant, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

The request for additional information was discussed with Mr. Terry Grebel, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-1045 or by e-mail at nathaniel.ferrer@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "N. Ferrer", is positioned above the typed name.

Nathaniel Ferrer, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosure:
As stated

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Diablo Canyon Nuclear Power Plant, Units 1 and 2
License Renewal Application
Request for Additional Information Set 10
Scoping and Screening/Aging Management Review

RAI 2.4.4-1

Based on the staff's review of Section 2.4.4, "Turbine Building," and Table 2.4-4 of the license renewal application (LRA), it is not clear if the roof and roofing membranes have been included within the scope of license renewal and subject to an aging management review (AMR). If the components are not included due to oversight, please discuss whether these components are within the scope of license renewal and subject to an AMR. If they are excluded from the scope of license renewal, please provide the basis for their exclusion.

RAI 2.5-1

NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," Appendix B indicates that elements, resistance temperature detectors (RTDs), sensors, thermocouples and transducers should be included in the list of component or commodity groups subject to an AMR if a pressure boundary is applicable. LRA Section 2.1.3.1 states that instrument and control (I&C) components with mechanical functions such as flow elements, flow indicators, flow orifices, and sight gauges were evaluated in their respective mechanical systems. However, it is not clear if I&C components such as RTDs, thermocouples and transducers that may have a pressure boundary function or other "mechanical function" have been included within the scope of license renewal. Please explain how such components were evaluated. Provide examples or references to such components and indicate where in the LRA these components have been listed as component types subject to an AMR, if required in accordance with 10 CFR 54.4(a).

RAI 3.1.2.1-1

The Generic Aging Lessons Learned (GALL) Report item IV.B2-21 recommends the Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program to manage loss of fracture toughness due to thermal aging and neutron irradiation embrittlement for the CASS lower internal assembly (lower support casting and lower support plate columns) exposed to reactor coolant (>250°C) and neutron flux. In addition, GALL Report item IV.B2-37 recommends the Thermal Aging and Neutron Irradiation Embrittlement of CASS Program to manage loss of fracture toughness due to thermal aging and neutron irradiation embrittlement for the CASS upper internals assembly, upper support columns exposed to reactor coolant (>250°C) and neutron flux.

Diablo Canyon Power Plant (DCPP) LRA Table 3.1.2-1, citing GALL Report items IV.B2-21 and IV.B2-37, indicates that the loss of fracture toughness of CASS Reactor Vessel Internal (RVI) lower core support structure (core support casing (U1)) and RVI upper core support structure (upper support columns) exposed to reactor coolant is managed by the Water Chemistry

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Program and the Final Safety Analysis Report (FSAR) Supplement commitment to (1) participate in industry RVI aging programs, (2) implement applicable results, and (3) submit for NRC approval >24 months before the extended period an RVI inspection plan, based on industry recommendation. The LRA uses Note E, along with a plant-specific note that states "Consistent with the GALL Report for material, environment and aging effect, but a different aging management program is credited or the GALL Report identifies a plant specific aging management program."

Clarify why the Water Chemistry Program with the commitment, which is different from the recommendation of the GALL Report, is adequate to manage the aging effect of the CASS components.

RAI 3.5.2.2.1.7-1

DCPP LRA Section 3.5.2.2.1.7 addresses the further evaluation of cracking due to stress corrosion cracking (SSC) of stainless steel penetration sleeves, penetration bellows, and dissimilar metal welds, as not applicable to DCP.

LRA Section 3.5.2.2.1.7 indicates that this further evaluation is not applicable because DCP has no in-scope stainless steel penetration sleeves, penetration bellows, or dissimilar metal welds subject to stress corrosion cracking. The FSAR, on Page 3.8-33, indicates that penetration sleeves for containment structures are made of carbon steel and that the flued heads, which appear to be welded to the penetrations sleeves, are made of stainless steel as shown in FSAR Figure 3.8-6. The staff noted that this information of the FSAR potentially contradicts the basis of the applicant's claim that the further evaluation described in LRA Section 3.5.2.2.1.7 is not applicable to DCP.

Clarify why there are no in-scope stainless steel penetration sleeves, penetration bellows, or dissimilar metal welds subject to SCC, taking into consideration the stainless steel flued heads which are apparently welded to the penetration sleeves.

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/RA/

Nathaniel Ferrer, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosure:
As stated

cc w/encl: Distribution via Listserv

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Letter to John Conway from Nathaniel B. Ferrer dated July 15, 2010

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