DiabloCanyonNPEm Resource

From: Ferrer, Nathaniel
Sent: Tuesday, July 20, 2010 3:24 PM
To: Grebel, Terence; Soenen, Philippe R
Cc: DiabloHearingFile Resource
Subject: RAI Letter dated, July 19, 2010
Attachments: RAI Related to the Review of the DCPP LRA - (Set 9) Aging Management Programs.pdf

Terry and Philippe,

Attached is an electronic copy of RAI Letter dated, July 19, 2010. A formal copy is being sent via mail.

Nathaniel Ferrer
Project Manager
Division of License Renewal
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
(301)415-1045

Hearing Identifier: DiabloCanyon_LicenseRenewal_NonPublic
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Subject: RAI Letter dated, July 19, 2010
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From: Ferrer, Nathaniel

Created By: Nathaniel.Ferrer@nrc.gov

Recipients:
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Tracking Status: None

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

July 19, 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)–AGING MANAGEMENT PROGRAMS

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, 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 e-mail nathaniel.ferrer@nrc.gov.

Sincerely,

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

Diablo Canyon Nuclear Power Plant, Units 1 and 2
License Renewal Application
Request for Additional Information Set 9
Aging Management Programs

RAI B2.1.11-1

The "detection of aging effects" program element of Generic Aging Lessons Learned (GALL) aging management program (AMP) XI.M23, "Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems," states that crane rails and structural components are visually inspected on a routine basis for degradation. In license renewal application (LRA) Section B2.1.11, the applicant states that its Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program is consistent with GALL AMP XI.M23.

During the audit, the staff reviewed the implementing procedures for the applicant's Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program. The staff found that the implementing procedures specify periodic visual inspections for the containment dome service crane and special service hoists, jib cranes, and monorails, but these procedures do not include specific provisions to detect corrosion of structural members.

Indicate whether these procedures will be enhanced to specify visual inspections for corrosion of structural members of the containment dome service crane and special service hoists, jib cranes, and monorails, or justify how the effects of aging on these components will be adequately managed during the period of extended operation.

RAI B2.1.18-1

The "detection of aging effects" program element of the Buried Piping and Tanks Inspection Aging Management Program in the GALL Report states that "[a]ny credited inspection should be performed in areas with the highest likelihood of corrosion problems, and in areas with a history of corrosion problems."

The Diablo Canyon technical basis documentation "preventative actions" program element states that stainless steel and asbestos cement buried piping is not wrapped or coated. In addition, during the audit it was determined that a carbon steel valve managed by the Buried Piping and Tanks Inspection Aging Management Program is not coated. Because of the close proximity of the site to the Pacific Ocean, there may be a higher likelihood of buried piping coming into contact with chlorides, which are known to cause localized corrosion in stainless steel and steel material.

Provide additional information about how the uncoated/wrapped stainless steel and asbestos cement buried piping will be considered in the development of plans to conduct planned inspections prior to and within the period of extended operation.

ENCLOSURE

RAI B2.1.20-1

LRA Table 3.3.2-5 includes valves exposed to atmosphere/weather (external) and managed by the AMP B2.1.20, "External Surfaces Monitoring." The GALL AMP XI.M36, "External Surfaces Monitoring," recommends visual inspection of external surfaces for evidence of material loss and leakage.

During an examination of Diablo Canyon Power Plant (DCPP) plant documentation for External Surfaces Monitoring Programs there were instances of in-scope valves within LRA Table 3.3.2-5 (identification numbers MU-0-267, MU-0-268, MU-0-273, MU-0-883 and MU-0-884 within the make water system) that were buried and therefore not accessible for the visual inspection methods recommended in GALL AMP XI.M36, "External Surfaces Monitoring." The DCPP LRA states that the External Surfaces Monitoring Program relies on visual inspection to detect degradation by aging. It is unclear to the staff that the in-scope buried valves can be monitored by visual inspection. In addition, it is not clear to the staff that buried valves are properly managed by AMP B2.1.20, "External Surfaces Monitoring," because they are exposed to soil environments and not external air.

Provide clarification regarding the correct categorization of the environments to which the in-scope valves are subjected to (external air or soil environments). Provide information confirming that the AMP B2.1.20, "External Surfaces Monitoring," with the requirement for visual inspection, is appropriate to manage aging of these inaccessible buried in-scope components.

RAI B.3.1-1

The GALL Report AMP X.M1, Metal Fatigue of Reactor Coolant Pressure Boundary, element 4 (detection of aging effects) recommends that the program provides for periodic update of the fatigue usage calculations.

LRA Section B3.1 states that prior to the period of extended operation Enhancement 4 will be implemented in the "detection of aging" program element. Enhancement 4 states:

> The procedures governing the DCPP Metal Fatigue of Reactor Coolant Pressure Boundary program will be enhanced to specify the frequency of periodic reviews of the results of the monitored cycle count and cumulative usage factor data at least once per fuel cycle. This review will compare the results against the corrective action limits to determine any approach to action limits and any necessary revisions to the fatigue analyses will be included in the corrective actions.

It is not clear to the staff how the frequencies will be established for the periodic reviews of the monitored cycle count and cumulative usage factor data.

Clarify how the frequency of the periodic reviews for the monitored cycle count and cumulative usage factor data are established and will adequately manage fatigue during the period of extended operation.

July 19, 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) – AGING MANAGEMENT PROGRAMS

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Sincerely,
/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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DATE	07/14/10	07/14/10	07/15/10	07/19/10

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Letter to J. Conway from N. Ferrer dated July 19, 2010

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) – AGING MANAGEMENT PROGRAMS

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