Pacific Gas and Electric Company®

James R. Becker
Site Vice President

Diablo Canyon Power Plant
Mail Code 104/5/601
P. O. Box 56
Avila Beach, CA 93424

805.545.3462
Internal: 691.3462
Fax: 805.545.6445

March 4, 2010

PG&E Letter HBL-10-006

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

Docket No. 50-133, OL-DPR-7
Humboldt Bay Power Plant, Unit 3
10 CFR 50.59 Report of Changes, Tests, and Experiments for the Reporting Interval of January 1, 2008, through December 31, 2009

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.59, the enclosure to this letter contains the Report of Changes, Tests, and Experiments for Humboldt Bay Power Plant, Unit 3 (HBPP), for the reporting interval of January 1, 2008, through December 31, 2009. The enclosed report provides a summary of the evaluation of three changes made to the facility as described in the Decommissioning Safety Analysis Report (DSAR) during the reporting period.

Evaluations performed in accordance with 10 CFR 50.59 are performed as part of PG&E's licensing basis impact evaluation (LBIE) process. Since the LBIE process is used to perform reviews for compliance with regulations in addition to 10 CFR 50.59, some LBIEs do not include a 10 CFR 50.59 evaluation, and therefore, are not included in this report.

The changes summarized in the enclosed report were reviewed and accepted by the Plant Staff Review Committee (PSRC). The PSRC determined that the changes did not require NRC approval nor require changes to the HBPP Technical Specifications. However, during internal PG&E review of this report, a comment was raised regarding the adequacy of enclosed Change 09-01. PG&E has entered this concern in the HBPP Corrective Action Program. If re-review of Change 09-01 results in any modification to the information contained in the enclosure, PG&E will notify the NRC.

No tests or experiments were performed during the reporting period that are not described in the DSAR.

IE47
NRR

If you have any questions or require additional information, please contact Mr. David Sokolsky at (707) 444-0801.

Sincerely,

James R. Becker
Site Vice President

cc/enc: Elmo E. Collins
Robert J. Evans
John B. Hickman
PG FossilGen HBPP Humboldt Distribution

10 CFR 50.59 REPORT OF CHANGES, TESTS, AND EXPERIMENTS JANUARY 1, 2008, THROUGH DECEMBER 31, 2009

HUMBOLDT BAY POWER PLANT, UNIT 3
DOCKET NO. 50-133

Described below are three changes made to Humboldt Bay Power Plant, Unit 3 (HBPP) facility during the period from January 1, 2008, through December 31, 2009, including brief descriptions of the changes and summaries of the 10 CFR 50.59 evaluations. The HBPP Plant Staff Review Committee has reviewed a more complete record of these changes, and determined the changes do not require NRC approval and do not require a change to the HBPP Technical Specifications.

Description of Change 2008-01

A specially designed 190,000 pound (95 ton) davit crane, qualified in accordance with NUREG-0612 and NUREG-0554 as appropriate to preclude cask drops, was approved for use via License Amendment 37. The davit crane was originally designed to employ dual 132-ton capacity strand jacks (264-ton total capacity) for vertical movement of the spent fuel casks. It was proposed that the dual jack configuration be replaced with a single 235-ton capacity strand jack of a different design. The proposed changes included changing the number of strands in the strand jack, changing the breaking strength of the strands, and changing the working capacity of the davit crane.

Justification and Summary of Change 2008-01

A specially designed davit crane, qualified in accordance with NUREG-0612 and NUREG-0554 was approved for use in the refueling building (RFB). The davit crane was originally designed to employ dual 132-ton capacity strand jacks (264-ton total capacity) for vertical movement of the spent fuel casks. The dual jack configuration was replaced with a single 235-ton capacity strand jack of a different type and control system. Plant personnel evaluated the accidents and malfunctions addressed in the Decommissioning Safety Analysis Report (DSAR) that were affected by the change and concluded that the changes did not result in conditions more severe than those previously evaluated.

Description of Change 2008-03

This change removed the Propane Engine Generator (PEG) from service, replacing it with battery powered supplies for those loads it would otherwise still be required to operate. The PEG and loads it was required to operate were described in the DSAR. Some loads were no longer required, due to the removal of the spent fuel and implementation of License Amendment 41. The change provided the battery powered supplies for two classes of loads: (1) emergency lighting (including exit signage), and (2) radiation monitoring that was still required. A third load requiring power in the event of loss of all other AC power, the main annunciator, was already provided with

adequate power when it was upgraded in 2005. Subsequent to the changes, the PEG connections to the emergency section of Unit 3's Motor Control Center 10 will be removed, the propane tank will be removed, and the PEG will no longer be relied upon to assure operation of the emergency lighting (required to safely egress the buildings), the main annunciator, or the remaining required radiation monitoring systems.

Justification and Summary of Change 2008-03

The HBPP design included a PEG to provide backup power in the event of loss of normal AC power. The PEG and associated electrical transfer circuitry was aging and required increased maintenance. Replacement parts were becoming more difficult or impossible to obtain. This change provided battery backups for selected services, (emergency lighting, radiation monitoring, and alarm annunciation on the main annunciator), to take the place of the PEG in the event of a complete loss of other AC power, allowing elimination of the PEG and precluding future PEG failures from leaving the facility without important services. The selected services and associated supplied equipment do not affect and are not credited in any accident analyses, and their failure would not create the potential for new accidents or events. Therefore, it is concluded that use of battery backup sources, with minimum durations of 1-1/2 hours for emergency egress lighting and 4 hours for radiation monitoring and alarms, is an acceptable alternative to the PEG and its 96 hour (propane storage capacity) backup capability.

Description of Change 09-01

This change was a revision to Appendix A to the Living DSAR, "Implications of Accidents During SAFSTOR Decommissioning," to eliminate the "Rupture of the Spent Fuel Pool" accident analysis from the HBPP licensing bases. Appendix A contained an analysis of a spent fuel pool (SFP) rupture as a result of two postulated scenarios: (1) a seismic event, and (2) dropping a heavy load. The heavy load drop analysis results prohibited using the RFB crane to move a load in excess of 10-tons over the SFP and parking the crane over the SFP.

Procedure HBAP C-702, "Rigging and Lifting," implements DSAR RFB crane prohibitions. Elimination of the SFP Rupture Accident Analysis from the DSAR supports a proposed revision to HBAP C-702 to delete these prohibitions and allow the accomplishment of a number of significant decommissioning activities.

Justification and Summary of Change 09-01

The original SFP rupture evaluation methodologies were summarized in DSAR Appendix A as being the point concentration model presented by Codell and Duguid and simplified analytical methods for minimum dilution presented in Codell and Duguid. Theses computations were done without the aid of sophisticated software modeling that has become available since the original analysis was performed.

The basis for making the proposed change is PG&E Calculation NX-356, "Humboldt Bay Power Plant Unit 3, Radiological Consequences for Breach of Defueled Spent Fuel

Pool, June 2009." NX-356 uses the RESRAD-OFFSITE computer code to update the 1984 DSAR analysis to determine the transport of radionuclides to Humboldt Bay from the time of the initiating event and the dose consequences to the public. The RESRAD-OFFSITE methodology, NUREG/CR-6937, is a more sophisticated methodology than the one that was briefly described in the then-current Appendix A SFP rupture analysis (Codell and Duguid). The RESRAD-OFFSITE computer code allows a more complete evaluation of the transport, fate, and dose consequences for the entire radioactive source term of the SFP. The document that implements the code is NUREG/CR-6937, "User's Manual for RESRAD-OFFSITE Version 2, June 2007." The calculation concludes that the dose consequences of a SFP rupture to the public are insignificant.

The NRC is a sponsoring organization of the computer code User's Manual and, as such, the evaluation methodology is considered to have been previously approved by the NRC and the code description in NX-356 confirms the applicability of its use at HBPP. Therefore, the use of the RESRAD-OFFSITE evaluation methodology to reanalyze the SFP rupture analysis from a heavy load drop is not considered a departure from a method of evaluation described in the Living DSAR used in establishing the design bases or in the safety analysis, because it has been previously approved by the NRC, and NX-356 is clear on its applicability for use at HBPP.