



**Pacific Gas and
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PG&E Letter DCL-05-014

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

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
90-Day Response to NRC Generic Letter 2004-02, "Potential Impact of Debris
Blockage on Emergency Recirculation During Design Basis Accidents at
Pressurized-Water Reactors"

Dear Commissioners and Staff:

This letter provides Pacific Gas and Electric (PG&E) Company's 90-day response to the Nuclear Regulatory Commission's request for information pursuant to Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated September 13, 2004. GL 2004-02 requests a description of the methodology that will be used to evaluate the impact of recirculation sump debris blockage, and the plans and methodology for performing a containment walkdown in support of the recirculation sump debris blockage evaluation.

Enclosure 1 contains PG&E's 90-day response to GL 2004-02.

If you have any questions or require additional information, please contact Stan Ketelsen at 805-545-4720.

Sincerely,

Donna Jacobs

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jer/3664
Enclosures

cc: Edgar Bailey, DHS
Bruce S. Mallett
David L. Proulx
Diablo Distribution
cc/enc: Girija S. Shukla

90-Day Response to NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors"

This enclosure provides Pacific Gas and Electric (PG&E) Company's 90-day response to the Nuclear Regulatory Commission's (NRC) request for information pursuant to Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated September 13, 2004. GL 2004-02 requested the following information to be provided within 90 days of the date of the safety evaluation report (SER) providing guidance for performing the requested containment sump evaluation. The NRC SER was issued by letter dated December 6, 2004, and titled, "Pressurized-Water Reactor Containment Sump Evaluation Methodology."

NRC Request 1 and 1(a)

All addressees are requested to provide the following information:

1. *Within 90 days of the date of the safety evaluation report providing the guidance for performing the requested evaluation, addressees are requested to provide information regarding their planned actions and schedule to complete the requested evaluation. The information should include the following:*
 - (a) *A description of the methodology that is used or will be used to analyze the susceptibility of the ECCS [emergency core cooling system] and CSS [containment spray system] recirculation functions for your reactor to the adverse effects identified in this generic letter of post-accident debris blockage and operation with debris-laden fluids identified in this generic letter. Provide the completion date of the analysis that will be performed.*

PG&E Response:

PG&E will analyze the susceptibility of the ECCS and CSS recirculation functions for Diablo Canyon Power Plant (DCPP) Units 1 and 2 to the adverse effects of post-accident debris blockage and operation with debris-laden fluids identified in GL 2004-02. PG&E will use the methodology provided by the Nuclear Energy Institute (NEI) document titled, "Pressurized Water Reactor Sump Performance Methodology," dated May 28, 2004, that was approved and supplemented by the NRC SER dated December 6, 2004. The sump performance methodology and the associated NRC SER have been issued collectively as NEI 04-07, "Pressurized Water Reactor Sump Performance Methodology," Revision 0, dated December 2004. The current licensing basis for DCPP Units 1 and 2, as well as

plant-specific features may identify exceptions and or refinements to be taken to the guidance given in NEI 04-07. Exceptions or refinements to the guidance given in NEI 04-07, should they be taken, will be identified and the basis for them documented. This analysis is scheduled to be completed by September 1, 2005.

A specific element of the NEI 04-07 methodology that will be incorporated into PG&E's analysis is the performance of plant-specific head loss testing. Based on the results of the completed containment walkdown surveillances performed on DCPD Units 1 and 2, it is evident that calcium-silicate insulation is a significant debris source. To understand the behavior of calcium-silicate insulation and to determine the debris loading capacity of the current DCPD recirculation screens, PG&E will perform head loss testing on a prototype model of the DCPD Unit 1 and 2 recirculation screens. ~~Testing is scheduled for completion by May 31, 2005.~~

NRC Request 1(b)

- (b) *[Provide] A statement of whether you plan to perform a containment walkdown surveillance in support of the analysis of the susceptibility of the ECCS and CSS recirculation functions to the adverse effects of debris blockage identified in this generic letter. Provide justification if no containment walkdown surveillance will be performed. If a containment walkdown surveillance will be performed, state the planned methodology to be used and the planned completion date.*

PG&E Response:

Containment walkdown surveillances have been completed for DCPD Units 1 and 2 to support the analysis of debris blockage requested by GL 2004-02. The walkdowns were performed using the guidance provided by NEI 02-01, "Condition Assessment Guidelines: Debris Sources Inside PWR Containments," Revision 1, dated September 2002. The DCPD Unit 1 containment walkdown surveillance was performed during refueling outage 1R11, in the spring of 2002, and the DCPD Unit 2 containment walkdown surveillance was performed during refueling outage 2R11, in the spring of 2003. The DCPD Unit 1 containment walkdown surveillance was performed prior the issuance of Revision 1 of NEI 02-01, using the guidance provided by Revision 0 of NEI 02-01. The results of the Unit 1 surveillance have been reviewed and additional walkdown results have been incorporated to address the changes made by Revision 1 of NEI 02-01.