



**Pacific Gas and  
Electric Company®**

**Barry S. Allen**  
Site Vice President

Diablo Canyon Power Plant  
Mail Code 104/6  
P. O. Box 56  
Avila Beach, CA 93424

805.545.4888  
Internal: 691.4888  
Fax: 805.545.6445

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PG&E Letter DIL-13-009

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

Docket No. 50-275, OL-DPR-80  
Docket No. 50-323, OL-DPR-82  
Docket No. 72-26, SNM-2511  
Diablo Canyon Units 1 and 2  
Diablo Canyon Independent Spent Fuel Storage Installation  
Response to NRC Letter dated May 20, 2013, "DIABLO CANYON POWER PLANT  
INDEPENDENT SPENT FUEL INSTALLATION STORAGE INSPECTION REPORT  
05000275/2013008, 05000323/2013008, 07200026/2013001, AND NOTICE OF  
VIOLATION"

Dear Commissioners and Staff:

As required by 10 CFR 2.201, this letter provides Pacific Gas and Electric Company's (PG&E's) reply to Notice of Violation (NOV) EA-13-090 cited in the above NRC inspection report. The NRC's NOV identified that PG&E failed to obtain a license amendment pursuant to 10 CFR 72.56 prior to implementing a proposed change that would create a possibility for an accident of a different type than previously evaluated in the Diablo Canyon Power Plant Updated Final Safety Analysis Report. Our response describes the reason for the violation, the corrective steps we have taken, results achieved, the corrective steps that we will take to avoid further violations, and the date when full compliance will be achieved.

If you have any questions regarding our response, please contact Mr. Thomas Baldwin at (805) 545-4720, or via email at [trb1@pge.com](mailto:trb1@pge.com).

Sincerely,

Barry S. Allen

dho6/6038/50559063

Enclosure

cc: Diablo Distribution  
cc/enc: Thomas R. Hipschman, NRC Senior Resident Inspector  
Arthur T. Howell, III, NRC Region IV  
James T. Polickoski, NRR Project Manager

Enclosure  
PG&E Letter DCL-13-009

**Reply to a Notice of Violation: EA-13-090**

## Reply to a Notice of Violation: EA-13-090

### I. Notice of Violation

"10 CFR 72.48(c)(1)(i)(C), requires, in part that a licensee or certificate holder may make changes in the facility or spent fuel storage cask design as described in the Final Safety Analysis Report (FSAR)(as updated), make changes in the procedures as described in the FSAR (as updated) without obtaining a license amendment pursuant to 10 CFR 72.56, if the change does not meet any of the criteria in paragraph (c)(2) of this section.

10 CFR 72.48(c)(2)(v) requires, in part, that a specific licensee shall obtain a license amendment pursuant to 10 CFR 72.56, prior to implementing a proposed change, if the change would create a possibility for an accident of a different type than any previously evaluated in the FSAR (as updated).

Contrary to the above, from late January 2012 through March 2012, the licensee failed to obtain a license amendment pursuant to 10 CFR 72.56, prior to implementing a proposed change that would create a possibility for an accident of a different type than previously evaluated in the FSAR (as updated). Specifically, the licensee made changes to Procedure HPP-1073-300, "Procedure for Drying, Backfill, and Sealing the MPC at DCPP," Revision 9, which allowed the licensee to take steps that were not consistent with Chapter 5 of the FSAR and resulted in the isolation of the canister, while filled with water, which created the possibility of an accident not evaluated in the FSAR. Diablo Canyon used this procedure and implemented the steps which resulted in an unanalyzed condition, during the loading of seven casks from January 2012 through March 2012."

This is a Severity Level IV violation (Section 6.1.d.2).

### II. Reason for the Violation

Pacific Gas and Electric Company (PG&E) used a procedure developed by Holtec International (Holtec) for use throughout the industry to load spent fuel into multi-purpose canisters (MPCs) in HI-STORM 100SA storage casks at Diablo Canyon Power Plant (DCPP). On June 9, 2009, DCPP reviewed Holtec Procedure HPP-1073-300, "Procedure for Drying, Backfill, and Sealing the MPC at DCPP," Revision 4, in accordance with 10 CFR 72.48, and approved it for use at DCPP. Between 2009 and 2011, Holtec revised this procedure multiple times. DCPP reviewed the applicable revisions of this procedure in accordance with 10 CFR 72.48 prior to each use onsite.

In December 2011, Holtec generated Holtec Information Bulletin 53 (HIB-53), which discussed a deficiency with its cask loading procedure.

Procedure HPP-1073-300 was found to contain instruction that allowed the MPC to be placed in an unanalyzed condition. Specifically, the procedure allowed both Removable Valve Operating Assemblies (RVOAs) to be installed on the MPC concurrently (in parallel). During RVOA installation, DCPD personnel installed both vent caps concurrently, which isolated the loaded canister while it contained an air/water mixture that could heat up and potentially overpressurize the MPC. This condition is not described or analyzed in the DCPD Individual Spent Fuel Storage Installation (ISFSI) Updated Final Safety Analysis Report (UFSAR). This instruction was contained in all previous revisions of the procedure, so DCPD failed to identify the instructions as requiring NRC review and approval in 2009. Additionally, each subsequent DCPD review of the applicable revision of the procedure failed to identify that this configuration had the potential to create a possibility for an accident of a different type than any previously evaluated in the UFSAR. At the time Holtec published HIB-53, DCPD was in the final stages of preparing for a spent fuel cask loading campaign and did not adequately consider HIB-53. DCPD consequently failed to change the procedure as specified by HIB-53 to prevent isolating the canister without a vent path.

In April 2013, DCPD staff discussed the basis for installing the vent caps in parallel with the Holtec procedure author. At the time the procedure was written, Holtec personnel did not recognize that the procedure created the potential for isolating MPC while it contained an air/water mixture. There is no specific discussion allowing for MPC isolation in either Holtec's HI-STORM 100 FSAR or the DCPD ISFSI UFSAR. The MPCs are ASME Code, Section III pressure vessels, and ASME Code, Section III, NB 7000 requires protection from overpressure. An isolated MPC containing spent fuel and an air/water mixture may heat up and exceed the design pressure in a finite time. The potential for an isolated condition was not recognized either by the original Holtec procedure developer or the DCPD reviewer. Parallel installation of RVOAs was a standard industry practice at the time of initial cask loading at DCPD. The expeditious completion of the required tasks prior to exceeding the air/water mixture time-to-boil limit was a critical item that all personnel were trained on.

DCPD determined that the failures to recognize the procedural error occurred because personnel reviewing the loading procedure incorrectly assumed that the vendor-supplied procedure complied with the requirements specified in the UFSAR, since the UFSAR-described MPC configuration had been developed with vendor input. This un-validated assumption resulted in the failure to identify the possibility for an accident of a different type than described in the UFSAR.

In March 2013, DCPD completed a self-assessment and discovered that it was not properly addressing vendor bulletins (including, but not limited to, HIB-53). DCPD personnel entered this deficiency into its Corrective Action Program (CAP) as Notification 50552345. DCPD determined that used fuel storage project (UFSP) personnel failed to follow DCPD Procedure CF7.ID4, "Processing of

Documents Received from Suppliers.” The procedure was not followed because USFP personnel had established an informal process based on the misperception that HIBs only provided informal operating experience to be considered for potential applicability. This misperception was formed because Holtec distributed its HIBs only to Holtec Users Group members rather than directly to licensees. HIBs made available after the initial cask loading campaign in 2009 were not entered into the CAP for formal evaluation due to the misperception of low significance attributed to the HIBs and failure to follow the CF7.ID4 requirements.

**III. Corrective Steps That Have Been Taken and the Results Achieved**

1. A review of the expectations for the processing of vendor technical information was conducted with all UFSP personnel. DCPD management reinforced site expectations for compliance with the requirements of CF7.ID4, and applicable administrative processes to site personnel. As a result, all previously unevaluated HIBs will be reviewed and processed in accordance with CF7.ID4 requirements (Notification 50552345).
2. Action was taken to prohibit HPP-1073-300, Revision 9, from being used at DCPD (Notification 50559063).

**IV. Corrective Steps That Will be Taken To Avoid Further Violations**

DCPD staff will:

1. Revise HPP-1073-300 to address HIB-53 prior to the next loading campaign in August 2013 (Notification 50466943).
2. Review all existing UFSP vendor technical information to ensure proper entry into the Operating Experience Assessment Program in accordance with the requirements of CF7.ID4 (Notification 50552345).
3. Develop and distribute a meeting notice to communicate the details of this occurrence, including the potential error traps and consequences. The primary target audience for this notice will be the Engineering, Projects, and Maintenance organizations. The information presented will be valuable to any personnel who use vendor technical information (Notification 50559063).

**V. Date When Full Compliance Will Be Achieved**

Full compliance was achieved on June 6, 2013, when DCPD developed Notification 50559063, Task 13, to prevent use of Procedure HPP-1073-300, Revision 9. DCPD developed Notification 50466943, Task 7, to ensure that future revisions of Procedure HPP-1073-300 prevent MPC isolation while it contains an air/water mixture.

**VI. References**

1. Letter from D. Blair Spitzberg (NRC) to Edward D. Halpin (PG&E), "DIABLO CANYON POWER PLANT INDEPENDENT SPENT FUEL INSTALLATION STORAGE INSPECTION REPORT 05000275/2013008, 05000323/2013008, 07200026/2013001, AND NOTICE OF VIOLATION" May 20, 2013.
2. Notification 50559063 Apparent Cause Evaluation

**VII. List of Commitments**

None