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

August 6, 2010

PG&E Letter DCL-10-088

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
Diablo Canyons Unit 1 & Unit 2
Licensee Event Report 1-2010-003-00
Diablo Canyon Power Plant 230kV Historical Evaluation of Condition Prohibited by Technical Specification

Dear Commissioners and Staff:

Pacific Gas and Electric Company submits the enclosed Licensee Event Report (LER) regarding a historical evaluation for the Unit 1 and Unit 2 230kV System operability and conditions prohibited by Technical Specifications.

This LER is submitted in accordance with 10 CFR 50.73(a)(2)(i)(B), 10 CFR 50.73(a)(2)(ii)(B), and 10 CFR 50.73(a)(2)(v).

There are no new or revised regulatory commitments in this report.

This event did not adversely affect the health and safety of the public.

Sincerely,

James R. Becker

swh/2246/50309644
Enclosure
cc/enc: Elmo E. Collins, NRC Region IV
Michael S. Peck, NRC Senior Resident Inspector
Alan B. Wang, NRR Project Manager
INPO
Diablo Distribution

IE22
NRR

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Diablo Canyon Unit 1	05000275	1 OF 5

4. TITLE

DCPP 230 kV Historical Evaluation of Condition Prohibited by Technical Specification

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									Diablo Canyon Unit 2	05000323
06	07	2010	2010	- 003 -	00	08	06	2010	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE

1

10. POWER LEVEL

100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☒ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☒ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☒ 50.73(a)(2)(v)(A)
- ☒ 50.73(a)(2)(v)(B)
- ☒ 50.73(a)(2)(v)(C)
- ☒ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Steven W. Hamilton – Senior Regulatory Services Supervisor	(805) 545-3449

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☒ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☐ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
09	24	2010

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On December 14, 2009, the U.S. NRC issued a letter providing an interpretation of Technical Specification (TS) 3.8.1. Based on this letter, PG&E evaluated past operation of the 230 kV offsite power system. On June 7, 2010, PG&E determined that the 230 kV system was operated in a condition prohibited by TS and reportable under 10 CFR §50.73(a)(2)(i), (a)(2)(ii), and (a)(2)(v). Specifically, the 230 kV system for Unit 1 and 2 was placed in an inoperable configuration between July 16, 2007 at 0245 PDT until July 27, 2007 at 1655 PDT, September 10, 2007 at 0140 PDT until September 15, 2007 at 0440 PDT, and November 3, 2008 at 0224 PST until November 7, 2008 at 0332 PST, in each event exceeding the 72 hour allowed outage time. This report will be supplemented for any additional event uncovered in the archived operating logs.

The cause of operating in a condition prohibited by TS 3.8.1 is a non-conservative assumption leading to misinterpretation of 230 kV licensing basis requirements in 1995, which produced incorrect operating procedures. Corrective actions for this event include revision to a station procedure and revision to licensing documents in accordance with the above U.S. NRC letter of December 14, 2009.

TEXT

I. Plant Conditions

At the time of the events in 2007, cited below, when the offsite power circuit was operated in a condition prohibited by TS, Unit 1 and Unit 2 were in Mode 1 (Power Operation) at approximately 100 percent reactor power with normal operating reactor coolant temperature and pressure.

II. Description of Problem

A. Background

Each unit has a dedicated 230kV [EA] to 12kV [EB] standby startup transformer [XFMR]. The electrical design of the bus work allows for the 12 kV System to be cross-tied between the units should a standby startup transformer be removed from service. In this configuration, one 230kV to 12kV standby startup transformer would be providing standby power service for both units.

Technical Specification (TS) 3.8.1 requires two offsite power circuits to be operable: 500 kV and 230 kV. With one offsite circuit inoperable, TS 3.8.1 Condition A requires verification of correct breaker alignment and power availability for each required offsite circuit within 1 hour and every 8 hours thereafter, and restoration of the inoperable circuit within 72 hours.

B. Event Description

On December 14, 2009 and July 7, 2010, the U.S. NRC issued letters at the request of PG&E that provided an interpretation of TS 3.8.1. Specifically it was clarified that the operability and availability of the 230 kV offsite power source depends on the capability of the offsite power circuits to support worst-case loading conditions and that TS 3.8.1 did not allow for a cross-tie configuration to maintain system operability. The worst-case loading was a change to prior DCPP understanding, such that the 230 kV system could be overloaded when placed in a cross-tie configuration.

Based on the above NRC letters, an evaluation of past operability was conducted from 2005 to present. On June 07, 2010 after reviewing the operating history, it was determined that the 230 kV System was operated in a condition prohibited by TS on three occasions during the past three years.

On July 16, 2007 at 0245 PDT, Diablo Canyon Power Plant (DCPP) both units should have entered Technical Specification (TS) 3.8.1 action 'A' for maintenance on the Unit 2 Standby Startup Transformer (i.e. unit cross-tie established). The Unit 2 Standby Startup Transformer was returned to service and declared operable on July 27, 2007, 1655 PDT (i.e. unit cross-tie opened).

On September 10, 2007 at 0140 PDT, Diablo Canyon Power Plant (DCPP) both units should have entered TS 3.8.1 action 'A' for maintenance on the Unit 1 Standby Startup Transformer (i.e. unit cross-tie established). The Unit 1 Standby Startup Transformer was returned to service and declared operable on September 15, 2007, 0440 PDT (i.e. unit cross-tie opened).

On November 3, 2008 at 0224 PST, Diablo Canyon Power Plant (DCPP) both units should have entered TS 3.8.1 action 'A' for maintenance on the Unit 2 Standby Startup Transformer (i.e. unit cross-tie established). The Unit 2 Standby Startup Transformer was returned to service and declared operable on November 7, 2008 at 0332 PST (i.e. unit cross-tie opened).

C. Status of Inoperable Structures, Systems, or Components that Contributed to the Event

None

D. Other Systems or Secondary Functions Affected

No additional safety systems were adversely affected by this event.

E. Method of Discovery

PG&E conducted a review from 2005 to present of the operability for the Startup offsite power circuit based on the U.S. NRC interpretation, dated December 14, 2009, of DCPP TS 3.8.1. This review concluded that entries into TS 3.8.1 exceeded the allowed outage time and thus constituted a condition that was prohibited by TS 3.8.1.

F. Operator Actions

None

G. Safety System Responses

None

III. Cause of the Problem

A. Immediate Cause

Operating procedures explicitly allowed for the acceptability of the cross-tie configuration to satisfy the LCO requirements of TS 3.8.1.

B. Cause

The cause of operating in a condition prohibited by TS 3.8.1 is a non-conservative assumption leading to misinterpretation of 230 kV licensing basis requirements in 1995, which produced incorrect operating procedures.

IV. Assessment of Safety Consequences

Operating outside of LCO for TS 3.8.1 Condition A meets several of the reporting criteria:

10 CFR 50.73(a)(2)(i)(B): Any operation or condition which was prohibited by the plant's Technical Specifications

10 CFR 50.73(a)(2)(ii)(B): Any event or condition that resulted in the nuclear power plant being in an unanalyzed condition that significantly degraded plant safety.

10 CFR 50.73(a)(2)(v): Any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are or systems that are needed to:

(A) Shut down the reactor and maintain it in a safe shutdown condition;
(B) Remove residual heat;
(C) Control the release of radioactive material; or
(D) Mitigate the consequences of an accident.

The operability and availability of the Startup offsite power circuit was impacted when the 72 hour LCO for TS 3.8.1 was exceeded on the three occasions. The condition is considered unanalyzed since the licensing basis documentation did not fully analyze the capability of the offsite power circuits to support the worst-case licensing basis loading conditions. This condition could have prevented the 230 kV Startup offsite power circuits from supplying power to the onsite class 1E buses and engineered safety feature systems.

The delayed source of offsite power (500-kV System) and emergency diesel generators were operable during the period of time for the cross-tie configuration. The availability and capability of the delayed source of offsite power and the emergency diesel generators were sufficient to accommodate and support any plant shutdown following a worst case scenario.

Given the above, there was no impact on the health and safety of the public and no significant impact or safety consequence of the impacted units.

V. Corrective Actions

A. Immediate Corrective Actions

DCPP Operating Procedure, "Guidelines for Reliable Transmission Service for DCPP," has been revised to define 230 kV system operability and appropriate operating configurations.

B. Corrective Actions to Prevent Recurrence

Licensing basis documents are being corrected to conform to the interpretation of the 230 kV system as clarified by referenced NRC letters.

VI. Additional Information

A. Failed Components

None

B. Previous Similar Events

None

C. Industry Reports

None