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

January 16, 2014

PG&E Letter DCL-14-003

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

10 CFR 50.73

Docket No. 50-275, OL-DPR-80
Diablo Canyon Unit 1
Licensee Event Report 1-2013-008-00, Technical Specification 3.3.4 Not Met Due to Inoperable Remote Shutdown System Function

Dear Commissioners and Staff;

Pacific Gas and Electric Company (PG&E) submits the enclosed Licensee Event Report (LER) for a condition prohibited by Technical Specifications (TS) when TS 3.3.4 was not met because of an inoperable remote shutdown system function. PG&E is submitting this LER in accordance with 10 CFR 50.73(a)(2)(i)(B).

PG&E makes no new or revised regulatory commitments (as defined by NEI 99-04) in this report. All the corrective actions identified in this letter will be implemented in accordance with the Diablo Canyon Power Plant Corrective Action Program.

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

Sincerely,

Barry S. Allen

dho6/6038/ 50595473
Enclosure
cc: Brian J. Benney, NRR Project Manager
Marc L. Dapas, NRC Region IV Administrator
Thomas R. Hipschman, NRC Senior Resident Inspector
INPO
Diablo Distribution

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@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)

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4. TITLE

Technical Specification 3.3.4 Not Met Due to Inoperable Remote Shutdown System Function

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
11	19	2013	2013	- 008 -	00	01	16	2014		
									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)*
Dean Overland, Senior Engineer, Regulatory Services	(805) 545-6038

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

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

On November 19, 2013, Diablo Canyon Power Plant (DCPP) maintenance technicians were conducting relay testing on Emergency Diesel Generator (EDG) 1-3 Output Breaker 52HF7, and discovered the breaker could not be closed locally. Maintenance personnel found the US fuses in the 52HF7 cubicle in the OFF position. With the US fuses in the OFF position, operators would not be able to close EDG 1-3 output breaker at the breaker cubicle unless they opened the breaker cubicle and manually closed the breaker. This manual operation is not proceduralized, so successful performance of this task could not be guaranteed. Local breaker closure capability is required to satisfy Technical Specification 3.3.4 remote shutdown functionality.

DCPP determined a failure to maintain adequate configuration control of the US fuses in the 52HF7 cubicle during refueling outage maintenance activities allowed the fuses to be installed in the incorrect position. DCPP restored the US fuses to the correct position and checked the positions of the US fuses in the other EDG output breaker cubicles.

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

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NARRATIVE

I. Plant Conditions

At the time of the event, Unit 1 was in Mode 1 (Power Operation) at approximately 100 percent reactor [RCT] power with normal operating reactor coolant temperature and pressure.

II. Problem Description

A. Background

Diablo Canyon Power Plant (DCPP) Units 1 and 2 each have three emergency diesel generators (EDGs) [DG] that provide vital backup power to each unit's three electrical buses [BU] to mitigate the consequences of a design basis accident (DBA) if off-site power sources are unavailable. DCPP EDGs are designed to function so that a single failure of any EDG will not jeopardize the capability of the remaining EDGs to start and provide power to operate the systems required to mitigate any DBA condition.

The Remote Shutdown System provides the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible due to fire or other causes. To assure that a fire in the control room or cable spreading room will not degrade the capability of the control circuits at the hot shutdown panel from accomplishing their safety functions, transfer switches [HS] are provided at the 4 kV switchgear. When an EDG output breaker [BKR] transfer switch is taken to the LOCAL position, an independent control circuit energizes. This independent circuit has local control fuses [FU] known as US fuses. These fuses are normally in the ON position, but remain de-energized during normal plant operation. There is no indication of fuse failure or misposition until the transfer switch is placed in LOCAL and the circuit energizes.

B. Event Description

On November 19, 2013, maintenance technicians were conducting relay testing on EDG 1-3 Output Breaker 52HF7, and discovered the breaker could not be closed locally. Maintenance personnel found the US fuses in the 52HF7 cubicle in the OFF position. With the US fuses in the OFF position, operators would not be able to close EDG 1-3 output breaker at the breaker cubicle unless they opened the breaker cubicle and manually closed the breaker. This manual operation is not proceduralized, so successful performance of this task could not be guaranteed. Local breaker closure capability is required for remote shutdown functionality. This condition was entered into the corrective action program as Notification 50595324.

C. Status of Inoperable Structure, Systems, or Components That Contributed to the Event

None.

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NARRATIVE

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

Maintenance technicians were conducting relay testing on EDG 1-3 Output Breaker 52HF7, and discovered the breaker could not be closed locally.

F. Operator Actions

None.

G. Safety System Responses

None.

III. Cause of the Problem

DCPP determined that a human error was the most probable cause. A failure to maintain adequate configuration control of the US fuses in the 52HF7 cubicle during Unit 1 Refueling Outage 17 maintenance activities most likely allowed the fuses to be reinstalled in the incorrect position. DCPP additionally determined that return to service testing following maintenance activities was inadequate, in that it did not verify remote shutdown functionality.

IV. Assessment of Safety Consequences

For the loss of local control power for EDG 1-3 Output Breaker 52HF7, DCPP determined that the estimated change in core damage frequency was 6.49E-07/year, and the estimated change in large early release frequency was 2.67E-08/year. DCPP determined that for a maximum one year exposure period, the incremental core damage probability was 6.49E-07, and the incremental large early release probability was 2.67E-08. These results indicate that the risk significance to Unit 1 was very low. This is expected, given that normal control was still available to Output Breaker 52HF7, and only the local recovery of the breaker on a failure to close was affected.

V. Corrective Actions

A. Immediate Corrective Actions

DCPP restored the US fuses to the correct position and checked the positions of the US fuses in the other EDG output breaker cubicles.

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NARRATIVE

B. Other Corrective Actions

DCPP will revise maintenance procedure MP E-63.3C, "Maintenance of 4 and 12 kV Switchgear," to include a list of all fuses to be replaced, and their normal position, in a table that facilitates proper configuration control. DCPP will also revise procedure AD13.ID4, "Post Maintenance Testing," to include testing requirements for fuse maintenance activities that could impact Remote Shutdown functionality.

VI. Additional Information

A. Failed Components

None.

B. Previous Similar Events

Diablo Canyon – On October 30, 2009, while returning to service 4 kV Bus E, operators noticed the white potential lights on Breaker 52HE14 were not lit. These lights come on when the breaker is racked in the cubicle. Further review found the UA fuses in the OFF position. These fuses are not normally removed and so were not covered in the rack in procedure. DCPP determined that electricians had inspected these fuses during maintenance, and documented that these fuses were found in the OFF position. The cause of the UA fuses in the OFF position was indeterminate.