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March 30, 2015

PG&E Letter DCL-15-042

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

10 CFR 50.73

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Power Plant, Units 1 and 2
Supplemental Licensee Event Report 1-2014-004-01, Actuation of Six Emergency Diesel Generators due to Loss of Offsite Power

Dear Commissioners and Staff;

Pacific Gas and Electric Company (PG&E) submits the enclosed supplemental Licensee Event Report (LER) regarding the valid actuation of all six safety-related emergency diesel generators due to the loss of 230 kV offsite power. Both Units 1 and 2 were impacted by this event. PG&E is submitting this LER in accordance with 10 CFR 50.73(a)(2)(iv)(A). All systems operated as designed with no problems observed.

PG&E makes no new or revised regulatory commitments (as defined by NEI 99-04) in this report. All corrective actions identified in this letter are being 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

aph8/6470/50669932
Enclosure
cc/enc: Marc L. Dapas, NRC Region IV Administrator
Thomas R. Hipschman, NRC Senior Resident Inspector
Siva P. Lingham, NRR Project Manager
INPO
Diablo Distribution

NRC FORM 366 (01-2014) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017

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 and Information Collections Branch (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 Page 2 for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Diablo Canyon Power Plant, Unit 1	05000 275	1 OF 4

4. TITLE

Actuation of Six Emergency Diesel Generators due to Loss of Offsite Power

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
10	31	2014	2014	- 004 -	01	03	30	2015	Diablo Canyon Unit 2	05000 323
									FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☒ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
100	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Andrew Heffner, Regulatory Services Engineer	805-545-6470

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
C	EK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO				

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

On October 31, 2014, at 17:40 PDT, during a medium to heavy rain, Pacific Gas and Electric Company (PG&E) lost its 230 kV offsite power source at the Diablo Canyon Power Plant when an insulator in the 230 kV switchyard flashed over. This resulted in the valid start of all Unit 1 and 2 emergency diesel generators (EDGs), three per unit. All EDGs successfully started, but did not load since all associated electrical buses remained energized by auxiliary power. All systems operated as designed with no problems observed. The 230 kV offsite power source is the only offsite power system designed to be immediately available following an accident. However, the safety-related onsite EDGs would have provided power to mitigate the consequences of an accident while the 230 kV system was unavailable. On October 31, 2014, at 23:07 PDT, PG&E made an 8-hour nonemergency report to the NRC. The 230 kV offsite power was declared operable on November 1, 2014, at 02:29 PDT.

PG&E completed a root cause evaluation and determined that inadequate organizational oversight and alignment resulted in ineffective and untimely execution of planned corrective actions intended to prevent excessive buildup of environmental contaminants on the 230 kV insulators.

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

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NARRATIVE

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

Licensed plant operators immediately recognized the event by alarms and indications received in the control room.

F. Operator Actions

On November 1, 2014, operators restored the Unit 1 and Unit 2 EDGs, respectively, to standby service. The 230 kV offsite power system was declared operable on November 1, 2014, at 02:29 PDT.

G. Safety System Responses

All Unit 1 and Unit 2 EDGs started as designed with no problems observed.

III. Cause of the Problem

A. Root Cause:

PG&E completed a root cause evaluation and determined that inadequate organizational oversight and alignment resulted in ineffective and untimely execution of planned corrective actions intended to prevent excessive buildup of environmental contaminants on the 230 kV insulators.

IV. Assessment of Safety Consequences

The 230 kV startup power is a standby system. Its loss was due to a degraded condition in the 230kv switchyard. This event did not create a transient at the plant. A Significance Determination Process evaluation allows taking credit for the actual plant configuration at the time of an event. With the successful start of all EDGs upon the loss of startup power, the vital AC power supply to all emergency core cooling system loads would have been maintained. A bounding analysis was performed and resulted in an incremental core damage and incremental large early release probabilities that were well below their respective acceptance criteria.

V. Corrective Actions

1. A new Project Manager has been designated to implement activities to effectively prioritize action plans into one comprehensive strategy for recovery between Transmission and DCPP projects.
2. Revised the Transmission & Distribution Interface procedure to ensure a single point of contact with ownership and oversight over switchyards affecting DCPP reliability to strengthen execution of maintenance and corrective actions.

VI. Additional Information

A Failed Components

None.

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NARRATIVE

B. Previous Similar Events

On May 12, 2007, at 10:25 PDT, during a refueling outage at DCPP, with Unit 1 in no Mode (core offloaded to the spent fuel pool) and Unit 2 in Mode 1 at approximately 100 percent power, an EDG system actuation was initiated on loss of 230 kV startup power supply due to an offsite transmission system insulator failure resulting in a phase to ground short and unanticipated protective relay response. Two Unit 1 EDGs started and loaded to provide onsite power. Unit 1 had one EDG and auxiliary offsite power cleared for maintenance. All three Unit 2 EDGs started as required, but did not load since all associated buses remained energized by auxiliary power. On May 12, 2007, at 14:30 PDT, operators restored startup power to the site. On May 12, 2007, at 15:09 PDT, operators made a nonemergency event notification (EN 43360) in accordance with 10 CFR 50. 72(b)(3)(iv)(A).

On June 23, 2013, at 21:20 PDT, PG&E lost its 230 kV offsite power source at the DCPP, due to an offsite transmission system insulator failure resulting in a phase to ground short and unanticipated protective relay response. This resulted in the valid start of all Unit 1 and 2 EDGs, three per unit. All EDGs successfully started, but did not load since all associated buses remained energized by auxiliary power. All systems operated as designed with no problems observed. The 230 kV offsite power source is the only offsite power system designed to be immediately available following an accident. However, the safety-related onsite EDGs would have provided power to mitigate the consequences of an accident while the 230 kV system was unavailable. On June 24, 2013, at 01:35 PDT, PG&E made an 8-hour nonemergency event notification.

C. Industry Reports

None.