



**Pacific Gas and
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January 29, 2020

PG&E Letter DCL-20-005

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

10 CFR 50.73

Docket No. 50-323, OL-DPR-82
Diablo Canyon Power Plant, Unit 2
Unit 2 Licensee Event Report 2019-001-00, Containment Spray Inoperable in Mode 4

Dear Commissioners and Staff,

Pacific Gas and Electric Company (PG&E) hereby submits the enclosed Diablo Canyon Power Plant (DCPP) Unit 2 Licensee Event Report (LER) regarding a condition in which the containment spray pumps 2-1 and 2-2 were inoperable during Mode 4. PG&E is submitting this LER in accordance with 10 CFR 50.73(a)(2)(v)(D) as an event or condition that could have prevented fulfillment of a safety function.

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 will be implemented in accordance with the DCPP Corrective Action Program.

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

Sincerely,

Paula Gerfen

dqmg/51057622

Enclosure

cc/enc:

Scott A. Morris, NRC Region IV Administrator
Christopher W. Newport, NRC Senior Resident Inspector
Balwant K. Singal, NRR Senior Project Manager
INPO
Diablo Distribution

NRC FORM 366 (04-2018)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0104 EXPIRES: 03/31/2020 <small>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 Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by 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.</small>	
 LICENSEE EVENT REPORT (LER) (See Page 2 for required number of digits/characters for each block) (See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)					
1. Facility Name Diablo Canyon Power Plant, Unit 2			2. Docket Number 05000323		3. Page 1 OF 4
4. Title Containment Spray Inoperable in Mode 4					
5. Event Date			6. LER Number		7. Report Date
Month	Day	Year	Year	Sequential Number	Rev No.
11	30	2019	2019	- 001	- 00
					8. Other Facilities Involved
					Facility Name Docket Number 05000
					Facility Name Docket Number 05000
9. Operating Mode 4		11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)			
		<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 50.73(a)(2)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(A)			
		<input type="checkbox"/> 20.2201(d) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(ii)(B) <input type="checkbox"/> 50.73(a)(2)(viii)(B)			
		<input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(ix)(A)			
		<input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 50.36(c)(1)(i)(A) <input type="checkbox"/> 50.73(a)(2)(iv)(A) <input type="checkbox"/> 50.73(a)(2)(x)			
10. Power Level 000		<input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 50.36(c)(1)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(v)(A) <input type="checkbox"/> 73.71(a)(4)			
		<input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(v)(B) <input type="checkbox"/> 73.71(a)(5)			
		<input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 50.46(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(v)(C) <input type="checkbox"/> 73.77(a)(1)			
		<input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(i)(A) <input checked="" type="checkbox"/> 50.73(a)(2)(v)(D) <input type="checkbox"/> 73.77(a)(2)(ii)			
		<input type="checkbox"/> 20.2203(a)(2)(vi) <input type="checkbox"/> 50.73(a)(2)(i)(B) <input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> 73.77(a)(2)(iii)			
		<input type="checkbox"/> 50.73(a)(2)(i)(C) <input type="checkbox"/> Other (Specify in Abstract below or in NRC Form 366A)			
12. Licensee Contact for this LER					
Licensee Contact David Madsen				Telephone Number (Include Area Code) 805-545-6192	
13. Complete One Line for each Component Failure Described in this Report					
Cause	System	Component	Manufacturer	Reportable To ICES	
14. Supplemental Report Expected				15. Expected Submission Date	
<input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date) <input checked="" type="checkbox"/> No				Month	Day
				Year	
Abstract (Limit to 1400 spaces, i.e., approximately 14 single-spaced typewritten lines) On November 30, 2019, at 1100 PST, with Unit 2 in Mode 4, Operations identified that both trains of containment spray had been made inoperable (DC control power removed) earlier in the day, at approximately 0237 hours as part of preparations for a planned Mode 5 entry. The containment spray pumps are required to be operable (along with the containment fan cooler units (CFCUs)) in Modes 1-4 in accordance with Technical Specification (TS) 3.6.6. With Containment Spray Pumps 2-1 and 2-2 inoperable, TS 3.6.6 Condition F requires immediate entry into TS 3.0.3. Since Unit 2 was in Mode 4, TS 3.0.3 required placing the unit in Mode 5 within 37 hours. At 1125 hours, both trains of containment spray were returned to operable and TS 3.6.6 and TS 3.0.3 were exited. The five CFCUs remained operable at all times throughout the inoperability of the containment spray pumps. This event was a result of human error. There was no impact on the health and safety of the public or plant personnel.					

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

(See NUREG-1022, R.3 for instruction and guidance for completing this form
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1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Diablo Canyon Power Plant, Unit 2	05000-323	2019	- 001	- 00

NARRATIVE**I. Reportable Event Classification**

This event is being reported in accordance with 10 CFR 50.73(a)(2)(v)(D) and the associated guidance of NUREG-1022, as an event or condition that could have prevented fulfillment of a safety function.

Event Notice (EN) 54417 reported this event in accordance with 10 CFR 50.72(b)(3)(ii)(B), as an unanalyzed condition that may have degraded plant safety. However, further engineering review of the event has determined that since all five containment fan cooler units (CFCUs) remained operable during this occurrence, there was not an unanalyzed condition that significantly degraded plant safety and the reporting criterion of 10 CFR 50.73(a)(2)(ii)(B) is not applicable.

II. Plant Conditions

At the time of the event, Diablo Canyon Power Plant (DCPP) Unit 2 was in Mode 4 (Hot Shutdown) while preparing to enter Mode 5 (Cold Shutdown).

III. Problem Description**A. Background**

Both containment spray pumps are required to be operable by Technical Specification (TS) 3.6.6 in Modes 1-4. The function of the containment spray system is to provide a spray of borated water mixed with sodium hydroxide into the upper regions of containment to reduce containment pressure and temperature, and to reduce fission products from the containment atmosphere during a design basis accident (DBA). Opening the containment spray pump direct current (DC) control power switches rendered both trains of containment spray inoperable.

B. Event Description

During the evening of November 29, 2019, while DCPP Unit 2 was in Refueling Outage 21, preparations were begun to transition Unit 2 from Mode 4 to Mode 5 in response to an equipment issue. Operations prepared for Mode 5 entry by writing necessary clearances, preparing procedures, and hanging configuration control tags. One such action was to disable the containment spray pumps by opening their associated DC control power knife switches. This action, which should have been performed following entry into Mode 5, was completed at approximately 0237 hours on November 30, 2019, with Unit 2 still in Mode 4. The DC control power was removed from the containment spray pumps as a result of human error. At 1100, the next operating crew (day shift) recognized the error and immediately entered TS 3.6.6 Condition F due to two trains of containment spray being inoperable. TS 3.6.6 Condition F.1 requires immediate entry into TS 3.0.3. Both pumps were restored to operable status on November 30, 2019, at 1125, and TS 3.6.6 and 3.0.3 were exited.

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

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There were no inoperable structures, systems or components that contributed to the event.

D. Other Systems or Secondary Systems Affected

None.

E. Method of Discovery

Self-identified. This condition was discovered by Operations personnel.

F. Operator Actions

Upon discovery of both trains of containment spray being inoperable in Mode 4, Unit 2 entered TS 3.6.6 Condition F and TS 3.0.3 at 1100 on 11/30/19. Both pumps were restored to operable status, and the associated TS were exited at 1125. The Operations crews responded to this event in accordance with plant operating procedures.

G. Safety System Responses

There were no safety system responses as a result of this event. Additionally, all five CFCUs remained operable and available during the period of containment spray inoperability.

IV. Cause of the Problem

The DC control power was removed from containment spray pumps as a result of human error.

V. Assessment of Safety Consequences

There were no safety consequences as a result of this event. The event occurred on day 69 of Unit 2 Refueling Outage 21 while preparations were being made to return Unit 2 to Mode 5, with relatively low decay heat in the core. Containment integrity was maintained, and all five containment fans coolers remained operable during this event. Given the Unit 2 conditions at the time, two of the five containment fan coolers would have provided sufficient containment cooling in the event of a loss of coolant.

There was no impact on the health and safety of the public or plant personnel.



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		2019	- 001	- 00

VI. Corrective Actions

The containment spray pumps were promptly restored to operable status upon identification of the error. Follow-up corrective actions to prevent recurrence will be managed in accordance with DCPD Corrective Action Program.

VII. Additional Information

There have been no similar events at DCPD in the previous three years.