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November 14, 2011

PG&E Letter DCL-11-120

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 Units 1 & 2
Licensee Event Report 1-2011-007-00
Diablo Canyon Power Plant - Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data

Dear Commissioners and Staff:

Pacific Gas and Electric Company (PG&E) submits the enclosed Licensee Event Report (LER) regarding control room envelope in-leakage testing. Both units are affected by this issue. PG&E is submitting this LER in accordance with 10 CFR 50.73(a)(2)(ii)(B).

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

mlpy/50428146
Enclosure
cc/enc: Elmo E. Collins, NRC Region IV
Michael S. Peck, NRC Senior Resident Inspector
James T. Polickoski, NRR Project Manager
Alan B. Wang, NRR Project Manager
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)

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

4. TITLE

Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data

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	05000 323
09	12	2011	2011	- 7 -	0	11	14	2011	FACILITY NAME	DOCKET NUMBER
										05000

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)*
L. Mark Padovan - Regulatory Services Supervisor	(805) 545-4540

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
01	16	2012

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

On September 12, 2011, at 1745 PDT, operators declared the Unit 1 and 2 common control room envelope (CRE) boundary inoperable and entered Technical Specification (TS) 3.7.10, "Control Room Ventilation System (CRVS)." This was due to discovery of inadequately-documented CRE in-leakage test data. Plant personnel reviewing the test report (dated February 3, 2005) for the common CRE identified that three of the four ventilation alignments tested had values of in-leakage greater than zero standard cubic feet per minute (SCFM), yet Pacific Gas & Electric (PG&E) had concluded that these results were adequate to show that the CRE had no unfiltered in-leakage. At 2257 PDT on September 12, 2011, PG&E made an 8-hour non-emergency report (reference NRC Event Notification 47258) under 10 CFR 50.72(b)(3)(ii)(B). On September 13, 2011, plant personnel verified that administrative controls were in place to maintain post-loss-of-coolant accident emergency core cooling system leakage at a rate that would ensure operator doses were maintained less than the Final Safety Analysis Report accident analysis results for the highest in-leakage rate reported in the test. On October 18, 2011, plant staff further identified that inadequate information was available in the report to conclude that the limiting condition for testing (where only one train of the CRVS was functioning) would result in zero SCFM in-leakage into the CRE. This was contrary to Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors." PG&E updated Event Notification 47258 on September 16 and October 18, 2011.

PG&E will provide new in-leakage test results, event cause, assessment of safety consequences, and corrective actions in a supplemental report following completion of system testing and its evaluation of this issue.

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Diablo Canyon Unit 1	05000 275	2011	- 007	- 00	2 OF 4

NARRATIVE

I. Plant Conditions

At the time of discovery, Units 1 and 2 were in Mode 1 (Power Operation) at 100 percent power.

II. Description of Problem

A. Background

The Unit 1 and 2 common Control Room Ventilation System (CRVS) provides a protected environment from which operators can control the units from the common control room following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The CRVS consists of two trains that recirculate and filter the air in the common control room envelope (CRE), and a CRE boundary that limits the in-leakage of unfiltered air (one CRVS train from each unit).

The CRVS is an emergency system, parts of which may also operate during normal unit operations. Upon receipt of an actuating signal, the normal air supply to the CRE is isolated, and the stream of outside ventilation air from the pressurization system and recirculated control room air is passed through a system filter. The pressurization system draws outside air from either the north end or the south end of the turbine building based upon the wind direction or the absence of releases at the inlet. The prefilters remove any large particles in the air to prevent excessive loading of the high-efficiency particulate air filters and charcoal adsorbers [ADS].

The CRVS is designed to maintain a habitable environment in the Units 1 and 2 common CRE for the duration of the most severe Design Basis Accident without exceeding a 5 rem whole body dose or its equivalent to any part of the body using only one train of the CRVS.

B. Event Description

On September 12, 2011, at 1745 PDT, operators declared the Unit 1 and 2 CRE inoperable and entered Technical Specification (TS) 3.7.10, "Control Room Ventilation System (CRVS)." This was due to discovery of inadequately-documented CRE in-leakage test data. Plant personnel reviewing the test report (dated February 3, 2005) for the common CRE identified that three of the four ventilation alignments tested had values of in-leakage greater than zero standard cubic feet per minute (SCFM). However, Pacific Gas & Electric (PG&E) had concluded that these results were adequate to show that the CRE had no unfiltered in-leakage, and had provided this information to the NRC in a letter dated April 22, 2005. At 2257 PDT on September 12, 2011, PG&E made an 8-hour non-emergency report (reference NRC Event Notification 47258) under 10 CFR 50.72(b)(3)(ii)(B). On September 13, 2011, plant personnel verified that administrative controls were in place to maintain post-loss-of-coolant accident emergency core cooling system leakage at a rate that would ensure operator doses were maintained less than the Final Safety Analysis Report accident analysis results for the highest in-leakage rate reported in the test.

On October 18, 2011, plant staff further identified that inadequate information was available in the report to conclude that the limiting condition for testing (where only one train of the CRVS was functioning) would result in zero SCFM in-leakage into the CRE. This was contrary to Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors." PG&E updated Event Notification 47258 on September 16 and October 18, 2011.

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NARRATIVE

PG&E re-performed the inleakage test and is evaluating the test results. PG&E will provide the test results and an assessment of the safety consequences in a supplemental report after completing its test results analysis and cause analysis.

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

None.

D. Other Systems or Secondary Functions Affected

Inadequate CRE testing rendered both Unit 1 and 2 CRVS trains inoperable. However, the CRVS trains remained capable of performing their normal ventilation functions.

E. Method of Discovery

PG&E investigations in response to questioning from the NRC Senior Resident Inspector about the 2005 CRE in-leakage testing led to the discovery of inadequate testing.

F. Operator Actions

Operators took required actions associated with TS 3.7.10.B, and implemented administrative controls to maintain post-loss-of-coolant accident emergency core cooling system leakage at a rate that would ensure operator doses were maintained less than the Final Safety Analysis Report accident analysis results for the highest in-leakage rate reported in the test.

G. Safety System Responses

None.

III. Cause of the Problem

PG&E will provide the cause in a supplemental report after completing its test results analysis and cause analysis.

IV. Assessment of Safety Consequences

This event did not result in failure of equipment, radiological release to plant personnel or the public. Therefore, this event did not adversely affect the health and safety of the public. PG&E will provide a more detailed assessment of safety consequences in a supplemental report after completing its test results analysis and cause analysis.

V. Corrective Actions

PG&E will provide corrective actions in the supplemental report after completing its test results analysis and cause analysis.

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NARRATIVE

VI. Additional Information

A. Failed Components

All components functioned as designed.

B. Previous Similar Events

There are no examples of previous similar events at DCPP.