

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

May 16, 2013

PG&E Letter DCL-13-053

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

Docket No. 50-323, OL-DPR-82 Diablo Canyon Unit 2 <u>Licensee Event Report 2-2013-003-00, "Technical Specification 3.6.3 and 3.0.4.a</u> <u>Not Met Due to Human Error"</u>

Dear Commissioners and Staff;

Pacific Gas and Electric Company (PG&E) submits the enclosed licensee event report (LER) in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the Diablo Canyon Power Plant's (DCPP) Technical Specifications (TS). The LER involves the failure to meet TS 3.6.3.A.2 and TS 3.0.4.a when transitioning from Mode 5 to Mode 4 due to human error. This LER provides the cause for the event, including the associated corrective actions.

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 DCPP Corrective Action Program.

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

Sincerely,

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Barry S. Allen

Dho6/ 50549533 Enclosure cc/enc: Thomas R. Hipschman, NRC Senior Resident Inspector Arthur T. Howell III, NRC Region IV James T. Polickoski, NRR Project Manager INPO Diablo Distribution

10 CFR 50.73

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMIS				SION A	PPROV	ED BY OMB: NO	. 3150-0104		EXPI	RES: 1	0/31/2013				
(10-2010) LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)							E r li e C ii a E C r ii	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.							
1. FACI	LITY N	AME						2	2. DOCKET NUMBER 3. PAGE						
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4. TITLE Technical Specification 3.6.3 and 3.0.4.a Not Met Due To Human Error															
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On March 18, 2013, at 09:30 PDT, following a transition from Mode 5 to Mode 4, an operator discovered that Unit 2 service air containment isolation valve (CIV) AIR-S-2-200 was open. Technical Specification (TS) 3.6.3 requires that each manual CIV be verified closed prior to entry into Mode 4, unless open under administrative controls. TS 3.0.4.a specifies that entry into a Mode shall only be made when associated TS-required actions permit continued operation in that Mode for an unlimited period of time. TS 3.6.3, Required Action A.2, requires Diablo Canyon Power Plant (DCPP) to verify containment Penetration 56 flow path is isolated prior to entering Mode 4 from Mode 5 for isolation devices inside containment. DCPP failed to verify the flow path was isolated prior to the Mode transition, and concluded that the transition from Mode 5 to Mode 4 with AIR S-2-200 open was a condition prohibited by TS 3.0.4.a and TS 3.6.3, and was reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

DCPP determined that a failure to properly use human performance error prevention tools and an inadequate supervisor review process for sealed component checklist completion caused the event. DCPP will revise the checklist to require independent supervisor verification that it is complete. This condition did not adversely affect the health and safety of the public.



NRC FORM 366A (10-2010) LICENSEE EVENT REPORT (LER) <sup>U.S. NUCLEAR REGULATORY COMMISSION</sup> CONTINUATION SHEET										
1. FACILITY NAME	2. DOCKET	6	. LER NUMBER		3. PAGE					
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Diablo Canyon Power Flant, Unit 2		13	- 003 -	00	2 OF 5					

NARRATIVE

I. Plant Conditions

At the time of the event, Unit 2 was shutdown for refueling outage 17. No fuel movement was in progress.

**II.** Problem Description

A. Background

Containment isolation valves (CIVs)[ISV] form part of the containment [NH] pressure boundary and provide a means for isolating process penetrations [PEN] not needed during accident scenarios. These isolation barriers are either passive or active (automatic). Passive barriers include manual valves, deactivated automatic valves secured in their closed position (including check valves [CKV] with flow through the valve secured), blind flanges, and closed systems. Active barriers include check valves and automatic valves designed to close without operator action following an accident. Two barriers in series are provided for each penetration, such that no single credible failure or malfunction of a component can result in a loss of isolation or leakage that exceeds limits specified in the safety analyses. The operability requirements for CIVs ensure that containment is isolated within the time limits specified in the safety analyses. Therefore, the operability requirements provide assurance that the containment function set forth in the safety analyses will be maintained.

The Diablo Canyon Power Plant (DCPP) compressed air system (CAS) consists of the instrument air (IA)[LD] system and the service air (SA)[LF] system. The function of the IA system is to provide clean, dry, oil-free air to control pneumatically-operated equipment. The SA system supports maintenance activities in the plant. Units 1 and 2 share the CAS. SA can also supply air to IA via a cross-tie line in the event of IA compressor [CMP] failures.

SA to the Unit 2 containment is normally isolated at Penetration 56 by two passive barriers; a manual outside CIV AIR-S-2-200, which controls air flow to containment, and an inside containment isolation check valve AIR-S-2-114. If AIR-S-2-200 is opened under administrative controls, the check valve will open with air flow through the penetration and will stroke closed to perform its isolation safety function in the event of an accident that causes reverse flow.

DCPP mode changes are authorized in accordance with Operating Procedure OP L-0, "Mode Transition Checklists." The mode transition checklist for Mode 5 to Mode 4 requires completion of the sealed-component checklist contained in Operating Procedure OP K-10B2, "Sealed Component Checklist for Containment Manual Isolation Components Outside Containment," to ensure that all manual CIVs are in the required position prior to mode transition. The sealed-component checklist requires both a first check and, once the valve is in the required position, an independent verification signature for each manual CIV. Nuclear operators sign a field copy of the checklist while performing or independently verifying the procedure, then transfer signatures to a master copy. The completed master copy is then reviewed by a supervisor, who verifies completion.

NRC FORM 366A (10-2010) LICENSEE EVENT REPORT (LER) <sup>U.S. NUCLEAR REGULATORY COMMISSION</sup> CONTINUATION SHEET										
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NARRATIVE										

B. Event Description

On March 13, 2013, an operator performing the sealed-valve checklist contained in OP K-10B2 did not sign the field copy for AIR-S-2-200 being closed, since SA was still being used in containment. The operator later incorrectly signed for AIR-S-2-200 being in the closed position while transferring signatures from the field copy to the master copy. Since AIR-S-2-200 was still open, the independent verifier did not sign the field or master copy. The supervisor failed to notice that the sealed-component checklist was missing the independent verification signature for AIR-S-2-200 and incorrectly signed the checklist as complete.

DCPP Unit 2 entered Mode 4 on March 18, 2013, at 05:39 PDT.

On March 18, 2013, at 09:30 PDT, an operator performing step 12.3.4 of Surveillance Test Procedure STP V-7C, "Leak Test of RHR [BP] Suction Valves 8701 and 8702," discovered that normally closed AIR-S-2-200 was open. The operator noted the valve was found open and promptly established the administrative controls and restored compliance with the Technical Specification (TS) 3.6.3, Condition A.

TS Surveillance Requirement 3.6.3.4 requires that each manual CIV be verified closed prior to entry into Mode 4, unless open under administrative controls of Operating Procedure OP O-12, "Operation of Manual Containment Isolation Valves." TS 3.6.3, Required Action A.1, requires DCPP in part, to isolate the affected penetration flow path by use of at least one closed manual valve within 4 hours of entering Mode 4. Although operations personnel did not close AIR-S-2-200 within the 4 hour required action time, administrative controls were established within the time constraint. However, TS 3.6.3, Required Action A.2, requires DCPP to verify containment Penetration 56 flow path is isolated prior to entering Mode 4 from Mode 5, for isolation devices inside containment. DCPP failed to verify the containment Penetration 56 flow path was isolated prior to the Mode transition. AIR-S-2-114 successfully passed its previous leak rate test, but it must stroke closed to isolate flow through the penetration in the event of an accident. Therefore, DCPP did not comply with TS 3.6.3 because Required Action A.2 was not completed prior to the transition from Mode 5 to Mode 4.

Additionally, TS 3.0.4.a specifies that when a limiting condition for operation is not met, entry into a Mode shall only be made when the required actions permit continued operation in the Mode for an unlimited period of time. DCPP failed to comply with TS 3.0.4.a because DCPP completed the Mode transition without the ability to complete TS 3.6.3, Required Action A.2.

DCPP concluded that the transition from Mode 5 to Mode 4 while AIR S-2-200 was open was a condition prohibited by TS 3.0.4.a and TS 3.6.3, Required Action A.2.

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

No systems, structures, or component failures contributed to the event.

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RRATIVE									
D. Other Systems or Secondary Functions A	ffected								
No other system or secondary function was	affected.								
E. Method of Discovery									
This condition was discovered when an open	rator noticed that A	AIR-S-2-2	200 v	as oper	n wh	ile perf	forming ST	ГР V-70	2.
F. Operator Actions									
Operations established administrative contro upon completion of the surveillance test.	ols in accordance v	vith OP C	)-12.	AIR-S	-2-20	)0 was	closed and	d sealed	
G. Safety System Responses									
This event did not initiate or require safety s	ystem response.								
III. Cause of the Problem									
DCPP determined that a failure to properly a supervisor review process for sealed-compo- notice that the sealed-component checklist w and incorrectly signed the checklist as comp was required.	use human perforn nent checklist com vas missing the inc lete. No independ	ance erro pletion c ependent ent super	or pre ausec t veri visor	eventior I the ev fication verific	n tool ent. sign ation	ls and a The su ature f of che	an inadequ pervisor fa for AIR-S- ecklist com	ate ailed to 2-200 apletion	
IV. Assessment of Safety Consequences									
There were no safety consequences as a result valve AIR-S-2-114 successfully passed its p containment isolation function in the event of outside CIV AIR-S-2-200 was inoperable le not considered risk significant and did not active considered risk significant a	It of this event. P revious leak rate to of an accident. Wh ss than the TS-allo dversely affect the	enetration est, and w ile in Mo wed outa health ar	n 56 i vas th ode 4 uge tin od saf	nside c erefore , contai ne of 4 ety of t	ontai fully nmer hour he pu	nment capab nt Pene rs. The iblic.	isolation c ble of perfo tration 56 erefore, the	check orming i manual e event i	ts

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ARRATIVE	<u> </u>		l	
V. Corrective Actions				
A. Immediate Corrective Actions				
Operations established administrative contru- upon completion of the surveillance test.	rols in accordance v	vith OP O-12. AIR-S-2-	200 was clo	sed and sealed
B. Other Corrective Actions				
DCPP will revise the sealed-component ch complete.	ecklists to require a	n independent superviso	r verification	n that it is
VI. Additional Information				
A. Failed Components				
No failed components were involved with t	this event.			
B. Previous Similar Events				
No relevant internal operating experience v	was identified.			