Pacific Gas and Electric Company

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PG&E Letter DCL-00-143

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

Docket No. 50-275, OL-DPR-80
Diablo Canyon Unit 1
Licensee Event Report 1-2000-007-00
Engineered Safety Feature Actuation – Component Cooling Water Pump Start Due to Personnel Error

Dear Commissioners and Staff:

PG&E is submitting the enclosed licensee event report regarding an engineered safety feature actuation, a component cooling water pump start, during surveillance testing due to personnel error.

This event was not considered risk significant and did not adversely affect the health and safety of the public.

Sincerely,

David H. Oatley

cc: Ellis W. Merschoff
David L. Proulx
Girija S. Shukla
Diablo Distribution
INPO

Enclosure

DDM/2246/A0516462

IE22

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Diablo Canyon Unit 1	0 5 0 0 0 2 7 5	1 OF 5

TITLE (4)

Engineered Safety Feature Actuation – Component Cooling Water Pump Start Due to Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	13	2000	2000	- 0 0 7 -	0 0	11	13	2000		

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)		
6	X	10 CFR	50.73(a)(2)(iv)
POWER LEVEL (10)		OTHER	
0 0 0	(SPECIFY IN ABSTRACT BELOW AND IN TEXT, NRC FORM 366A)		

LICENSEE CONTACT FOR THIS LER (12)

	TELEPHONE NUMBER	
	AREA CODE	
Roger Russell - Senior Regulatory Services Engineer	805	545-4327

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED	MON	DAY	YR
[ ] YES (If yes, complete EXPECTED SUBMISSION DATE)	[X] NO	SUBMISSION DATE (15)			

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On October 13, 2000, at 1714 PDT, with Unit 1 in Mode 6 (Refueling), an engineered safety feature (ESF) actuation signal initiated a trip of the auxiliary electrical power, separating vital Bus F from the offsite power. The loss of the auxiliary power source actuated an undervoltage relay, starting Component Cooling Water (CCW) Pump 1-1, an ESF component.

On October 13, 2000, at 1918 PDT, a 4-hour nonemergency report was made in accordance with 10 CFR 50.72(b)(2)(ii).

The root cause of the ESF actuation was personnel error by a utility licensed operator who determined that two tests could be performed simultaneously. A contributory cause was an inadequate procedure that did not include adequate precautions to prevent the inadvertent ESF actuation.

The procedure has been revised to include a prerequisite to not perform the test when the affected diesel generator is running.

TEXT

I. Plant Conditions

Unit 1 was in Mode 6 (Refueling) at 0 percent power.

II. Description of Problem

A. Background

Technical Specification (TS) 3.3.5, "Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation," Surveillance Requirement (SR) 3.3.5.3 requires a channel calibration of the loss of voltage input to the Emergency Diesel Generator (EDG)[EK][DG] start circuits.

Surveillance Test Procedure (STP) M-75, "4kV Vital Bus Undervoltage Relay Calibration," performs a channel calibration of the vital undervoltage relays and time delay relays as required by TS SR 3.3.5.3. The First Level Undervoltage Relays (FLUR) and Second Level Undervoltage Relays (SLUR) provide protection from degraded voltage conditions on the vital buses by initiating an engineered safety feature (ESF) signal to trip the vital bus loads, start the EDG, and transfer ESF loads to the onsite emergency power source, the EDGs.

STP M-21-A.1, "Outage and Pre-Outage Diesel Engine Analysis (Every Refueling Outage)," performs a diagnostic test of the EDGs to ensure that engine performance has not degraded. This test is performed by loading the EDG in parallel with the offsite power source while gathering diesel engine operating parameters.

B. Event Description

On October 13, 2000, at 1714 PDT, during STP M-75 testing of vital Bus F FLURs and SLURs, with EDG 1-3 operating per STP M-21-A.1 in parallel with Bus F, STP M-75 testing initiated an ESF signal, tripping the intended offsite power supply feeder, resulting in the start of the standby Component Cooling Water (CCW) Pump 1-1.

On October 13, 2000, at 1918 PDT, a 4-hour nonemergency report was made in accordance with 10 CFR 50.72(b)(2)(ii).

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

None.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

The event was immediately known to licensed plant operators by alarms and indications received in the control room.

F. Operator Actions

Plant operators halted further testing with STP M-75 pending a review of the cause of the unanticipated ESF actuation.

G. Safety System Responses

The CCW Pump 1-1 automatically started as designed in response to the ESF signal in accordance with plant configuration.

III. Cause of the Problem

A. Immediate Cause

The immediate cause was plant alignment to an operating EDG per STP M-21-A.1 in parallel with Bus F creating a condition such that when the FLUR was tripped per STP M-75, the resultant relay actuations initiated a start of CCW Pump 1-1 as designed.

B. Root Cause

Personnel error (cognitive) by a utility licensed operator who determined that the two tests could be performed simultaneously. Additional PG&E personnel responsible for scheduling and performing the test failed to identify the interaction of the two tests being performed concurrently.

C. Contributory Cause

Inadequate procedure: STP M-75 did not include adequate precautions to prevent this event.

IV. Analysis of the Event

There were no actual safety consequences involved in this event since all plant equipment operated as designed in response to the initiation of the test signal. The start of a standby CCW pump is a routine plant action performed periodically to equalize operating time of the three pumps. Plant alignment and continued operation of the CCW system was unaffected by the start of an additional pump.

Therefore, this event was not considered risk significant and did not adversely affect the health and safety of the public.

This event did not involve a Safety System Functional Failure.

The condition was evaluated using the NRC's Significance Determination Process in accordance with NRC Inspection Manual Chapter 0609 and was screened out as green.

V. Corrective Actions

A. Immediate Corrective Actions

STP M-75 testing was halted, and plant personnel involved with the testing sequence performed additional review of the plant conditions necessary to perform the test without unintended ESF actuations.

B. Corrective Actions to Prevent Recurrence

STP M-75 has been revised to include a prerequisite to not perform this test when the affected diesel generator is running. Based upon active participation of the personnel involved during the event in the investigation and resolution, no additional corrective actions are deemed necessary.

VI. Additional Information

A. Failed Components

None.

TEXT

B. Previous Similar Events

None.