

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1): **DIABLO CANYON, UNIT 1** DOCKET NUMBER (2): **0 5 0 0 0 2 7 5** PAGE (3): **1 OF 02**

TITLE (4): **INADVERTENT ACTUATION OF THE REACTOR PROTECTION SYSTEM**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)								
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)						
0	5	06	84	84	014	0	0	06	05	08	4	0	5	0	0	0	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

OPERATING MODE (9): 2	<input type="checkbox"/> 20.402(a)	<input type="checkbox"/> 20.405(a)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
POWER LEVEL (10): 0.02	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(a)(1)	<input type="checkbox"/> 50.73(a)(2)(ix)	<input type="checkbox"/> 73.71(a)
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.38(a)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 288A)
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
	<input type="checkbox"/> 20.405(a)(1)(vi)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12):
 NAME: **WILLIAM J. KELLY, REGULATORY COMPLIANCE ENGINEER**
 TELEPHONE NUMBER: **8 0 5 5 9 5 - 7 3 5 1**

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

CAUSE	SYSTEM	COMPONENT	MANUFAC. TURNER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFAC. TURNER	REPORTABLE TO NRC
X	J,C	T,M	H,O	1,5	NO				

SUPPLEMENTAL REPORT EXPECTED (14):
 YES (If yes, complete EXPECTED SUBMISSION DATE): NO
 EXPECTED SUBMISSION DATE (15): MONTH: , DAY: , YEAR:

ABSTRACT (Limit to 700 words, i.e., shorter than any other single-space typewritten text) (16)

While in Mode 2 (Startup) a signal from the Reactor Protection System (RPS) resulted in a reactor trip. With one protection set out of service for a functional test, a spurious signal from a second protection set satisfied the minimum RPS logic for Overtemperature Delta T and Overpower Delta T and a reactor trip occurred. Subsequent investigation revealed a faulty Temperature Modifier in the Protection Set II control cabinet. The component was replaced, and Protection Set II returned to service.

8406110277 840605
 PDR ADOCK 05000275
 PDR
 B

IE22

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) DIABLO CANYON UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 2 7 5 8 4	LER NUMBER (6)			PAGE (7)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		0 1 4	0 0 0	0 2	OF	0 2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

At 2140 Hours, on May 6, 1984, while in Mode 2 (Startup) and at two percent reactor power, Instrument and Controls (I&C) Technicians removed the Reactor Protection System (RPS), Protection Set III Delta T from service to perform a functional test in accordance with approved surveillance test procedures. After Protection Set III Delta T was removed from service, a Temperature Modifier (TM421A) failed in Protection Set II Delta T circuit. The failure caused the Delta T and Tavg signals to oscillate and an Overtemperature Delta T setpoint in Protection Set II was exceeded. Because Protection Set III was removed from service, the Overtemperature Delta T logic was reduced from 2 of 4 to 1 of 3. The spurious signal from Protection Set II provided the one signal necessary and caused a reactor trip.

The Shift Foreman made a notification of a Significant Event to the NRC Operations Center via the Emergency Notification System in accordance with 10 CFR 50.72(b)(2)(ii).

Protection Set III was returned to service immediately.

Subsequent testing on Protection Set II by I&C Technicians revealed a faulty Q15A transistor in the Hagan Model 7100 Series TM421A Temperature Modifier (JG) (TM) located in the T_{hot} module. The module was replaced and Protection Set II was returned to service. A review of Maintenance history records showed that no other failures of this component have occurred at Diablo Canyon.

The undetected, nonconservative failure of one protection set in the RPS is the limiting case. It results in the protection logic being reduced to 2/3, which still provides protection for the reactor upon receipt of a valid trip signal, regardless of the operating mode.

In addition, pursuant to approved surveillance test procedures, channel checks are performed on RPS protection sets once for each eight-hour shift. Any reduction in the degree of redundancy in the RPS would be detected and corrected in a short time.

1157d/0015K

PACIFIC GAS AND ELECTRIC COMPANY

PG&E +

77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211 • TWX 910-372-6587

JAMES D. SHIFFER
MANAGER

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
NUCLEAR POWER GENERATION

June 5, 1984

PGandE Letter No.: DCL-84-207

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

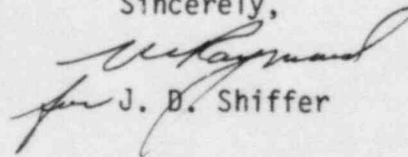
Re: Docket No. 50-275, OL-DPR-76
Diablo Canyon Unit 1
Licensee Event Report 84-014-00
Inadvertent Actuation of the Reactor Protection System

Gentlemen:

Pursuant to 10 CFR 50.73(a)(2)(IV), PGandE is submitting the enclosed Licensee Event Report concerning the inadvertent actuation of the Reactor Protection System.

This event has in no way affected public health and safety.

Sincerely,


for J. D. Shiffer

Enclosure

cc: J. B. Martin
Service List

IE22
/1