ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8809010334 DOC.DATE: 88/08/29 NOTARIZED: NO DOCKET #
FACIL:50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Ga 05000275
AUTH.NAME AUTHOR AFFILIATION
KELLY,W.J. Pacific Gas & Electric Co.
SHIFFER,J.D. Pacific Gas & Electric Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: LER 88-024-00:on 880707,failure to meet tech spec limiting condition for operation due to personnel error.
W/8 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD5 LA	1	1	PD5 PD	1	1
	ROOD,H	1	1			
INTERNAL:	ACRS MICHELSON	1	1	ACRS MOELLER	2	2
	ACRS WYLIE	1	1	AEOD/DOA	1	1
	AEOD/DSP/NAS	1	1	AEOD/DSP/ROAB	2	2
	AEOD/DSP/TPAB	1	1	ARM/DCTS/DAB	1	1
	DEDRO	1	1	NRR/DEST/ADS 7E	1	0
	NRR/DEST/CEB 8H	1	1	NRR/DEST/ESB 8D	1	1
	NRR/DEST/ICSB 7	1	1	NRR/DEST/MEB 9H	1	1
	NRR/DEST/MTB 9H	1	1	NRR/DEST/PSB 8D	1	1
	NRR/DEST/RSB 8E	1	1	NRR/DEST/SGB 8D	1	1
	NRR/DLPQ/HFB 10	1	1	NRR/DLPQ/QAB 10	1	1
	NRR/DOEA/EAB 11	1	1	NRR/DREP/RAB 10	1	1
	NRR/DREP/RPB 10	2	2	NRR/DRIS/SIB 9A	1	1
	NUDOCS-ABSTRACT	1	1	REG FILE 02	1	1
	RES TELFORD,J	1	1	RES/DSIR DEPY	1	1
	RES/DSIR/EIB	1	1	RGN5 FILE 01	1	1
EXTERNAL:	EG&G WILLIAMS,S	4	4	FORD BLDG HOY,A	1	1
	H ST LOBBY WARD	1	1	LPDR	2	2
	NRC PDR	1	1	NSIC HARRIS,J	1	1
	NSIC MAYS,G	1	1			

TOTAL NUMBER OF COPIES REQUIRED: LTTR 47 ENCL 46

RIDS/ADDS RIDS/ADDS

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 0 4

TITLE (4): FAILURE TO MEET TECHNICAL SPECIFICATION LIMITING CONDITION FOR OPERATION FOR INOPERABLE REACTOR TRIP SYSTEM INSTRUMENTATION CHANNEL DUE TO PERSONNEL ERROR

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 NUMBERS
0 7	0 7	8 8	8 8	0 2 4	0 0	0 8	2 9	8 8		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 2

POWER LEVEL (10): 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (11)

[X] 10 CFR 50.73(a)(2)(i)(B)

[ ] OTHER (Specify in Abstract Below and in Text, NRC Form 366A)

LICENSEE CONTACT FOR THIS LER (12)

WILLIAM J. KELLY, REGULATORY COMPLIANCE ENGINEER

TELEPHONE NUMBER: AREA CODE 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	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

[ ] YES (If yes, complete EXPECTED SUBMISSION DATE)

[X] NO

EXPECTED SUBMISSION DATE (15): MONTH | DAY | YEAR

ABSTRACT (16)

On July 7, 1988, at 1142 PDT, with Unit 1 in Mode 2 (Hot Standby), the 6 hours allowed by Technical Specification (TS) 3.3.1, Action Statement 6.a to place an inoperable Overpower Differential Temperature (OPDT) channel in the tripped condition was exceeded. On July 29, 1988, the inoperable channel was discovered and recalibrated and returned to operable status thereby meeting the requirements of TS 3.3.1.

The cause of this event was personnel error (cognitive). During rescaling adjustments for surveillance test performed on June 16, 1988, an incorrect voltage input was applied which resulted in a voltage biasing error. Other temperature channel calibrations in Unit 1 have been checked and were found to be acceptable.

I E22 1/1

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
DIABLO CANYON UNIT 1	0 5 0 0 0 2 7 5	8 8	— 0 2 4	— 0 0	0 2 OF 0 4

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

I. Initial Conditions

The unit was in Mode 2 (Hot Standby).

II. Description of Event

A. Event

On July 7, 1988, at 1142 PDT, with Unit 1 in Mode 2 (Hot Standby), the 6 hours allowed by Technical Specification (TS) 3.3.1, Action Statement 6.a to place an inoperable Overpower Differential Temperature (OPDT) channel in the tripped condition was exceeded. On July 29, 1988, the inoperable OPDT channel was discovered and recalibrated and returned to operable status thereby meeting the requirements of TS 3.3.1.

On July 29, 1988, at 1803 PDT, Surveillance Test Procedure (STP) I-5B2, "Channel Calibration: OTDT, OPDT, T(AVG), and Delta-T" was being performed on Channel 431 when it was discovered that summator modules TM-432E and TM-431E (JC)(IMOD) were out of tolerance.

Investigation of the out of tolerance data indicates that while rescaling adjustments were made during the previous performance of STP I-5B2 on June 16, 1988, a +1.000 volt was applied to input 4 of TM-432E instead of a -1.000 volt as specified in step 11 of STP I-5B2, which resulted in a 2 volt biasing error.

The functional test, STP I-5A, "Analog Channel Operational Test - OTDT, OPDT, T(AVG), and Delta-T" was performed following completion of the calibration on June 16, 1988. This test was satisfactory as was the functional test performed prior to obtaining the as found data per the test on July 29, 1988. Other temperature channels in Unit 1 have had their calibrations checked and were found to be acceptable.

B. Inoperable structures, components, or systems that contributed to the event:

None

C. Dates and approximate times for major occurrences.

1. June 16, 1988 at 0530 PDT: STP I-5B2 performed on OPDT channels. A 2 volt biasing error was introduced on TM-431E and TM-432E.

2. July 7, 1988 at 0542 PDT: Unit 1 entered Mode 2.

3. July 7, 1988 at 1142 PDT: Event date. TS 3.3.1 Action 6.a. exceeded.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
DIABLO CANYON UNIT 1	0 5 0 0 0 2 7 5	8 8	0 2 4	0 0	0 3 OF 0 4

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

4. July 29, 1988 at 1803 PDT: Discovery date. TS 3.3.1/3.3.2 entered. STP I-5B2 performed on OPDT channels. Modules TM-431E and TM-432E recalibrated and returned to service.

5. July 30, 1988 at 1903 PDT: Exited TS 3.3.1/3.3.2.

D. Other systems or secondary functions affected:

None

E. Method of discovery:

The out of tolerance modules were discovered by I&C technicians during the surveillance test.

F. Operator actions:

None

G. Safety system responses:

None

III. Cause of the Event

A. Immediate Cause

A +1.000 volt was applied to input 4 of TM-432E instead of a -1.000 volt as specified in step 11 of STP I-5B2, which resulted in a 2 volt biasing error.

B. Root Cause

Personnel error (cognitive). During rescaling adjustments made during the performance of STP I-5B2, test leads were reversed. This resulted in the application of a +1.000 volt instead of a -1.000 volt to the affected terminal.

The root cause analysis have concluded that test procedures were adequate and would not have prevented this event from occurring. The technician involved in the event was experienced, highly qualified, and had successfully performed this STP on other channels the same day. Human factors were evaluated but no contributing factors were revealed. Based on this analysis, no corrective actions to procedures or training were recommended.

IV. Analysis of the Event

The OPDT reactor trip setpoint is a continuously calculated variable setpoint designed to provide assurance of fuel integrity (no melting) under all possible overpower conditions. The OPDT also limits the required range for OTDT protection, and provides a backup to the high neutron flux trip. No credit was taken for the operation of this protection set in the DCPP accident analyses.

The introduction of a 2 volt biasing error resulted in one protection channel becoming partially inoperable in that under transient conditions, such as a rapid change in power, no differential temperature penalty signal would have been generated. A review of the unit operations logs indicates that while this protection channel was in this condition, no transients occurred where this instrument channel would have been called upon to perform its intended function. During the 21 days this channel was inoperable, at least two of the four total OPDT channels were operable to provide reactor protection. Therefore, this event had no effect upon the health and safety of the public.

V. Corrective Actions

A. Immediate Corrective Actions

Upon discovery, the modules were properly adjusted and the instrument satisfactorily tested and returned to service.

B. Corrective Actions to Prevent Recurrence

A description of this incident will be included in the next I&C Quarterly Seminar.

I&C will investigate the enhancement of STP I-5A to provide further verification of the proper operation of calibrated channels.

VI. Additional Information

A. Failed Components

None

B. Previous LERs on similar events:

None

2279S/0063K

Pacific Gas and Electric Company

77 Beale Street
San Francisco, CA 94106
415/973-4684
TWX 910-372-6587

James D. Shiffer
Vice President
Nuclear Power Generation

August 29, 1988

PG&E Letter No. DCL-88-209

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

Re: Docket No. 50-275, OL-DPR-80
Diablo Canyon Unit 1
Licensee Event Report 1-88-024-00
Failure to Meet Technical Specification Limiting Condition for Operation for an Inoperable Reactor Protection Instrument Channel Due To Personnel Error

Gentlemen:

Pursuant to 10 CFR 50.73(a)(2)(i)(B), PG&E is submitting the enclosed Licensee Event Report (LER) regarding a failure to meet a Technical Specification Limiting Condition for Operation for an inoperable reactor protection instrument channel.

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

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,

J. D. Shiffer

cc: J. B. Martin
M. M. Mendonca
P. P. Narbut
H. Rood
B. Norton
B. H. Vogler
CPUC
Diablo Distribution
INPO

Enclosure

DC1-88-TI-N084

2279S/0063K/DY/2149

IE22
1/1