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RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-031-00:on 881226,liquid radwaste discharge w/radiation monitor RM-18 inoperable due to personnel error.
W/8 ltr.

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	PD5 LA	1	1	PD5 PD	1	1
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INTERNAL:	ACRS MICHELSON	1	1	ACRS MOELLER	2	2
	ACRS WYLIE	1	1	AEOD/DOA	1	1
	AEOD/DSP/TPAB	1	1	AEOD/ROAB/DSP	2	2
	ARM/DCTS/DAB	1	1	DEDRO	1	1
	NRR/DEST/ADE 8H	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
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	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	1	1
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RIDS/ADDS

RIDS/ADDS

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 0 6

TITLE (4): LIQUID RADWASTE DISCHARGE WITH RADIATION MONITOR RM-18 INOPERABLE 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 NUMBER(S)
										0 5 0 0 0
1 2	2 6	8 8	8 8	0 3 1	0 0	0 1	2 4	8 9	DIABLO CANYON UNIT 2	0 5 0 0 0 3 2 3

OPERATING MODE (9)	1
POWER LEVEL (10)	1 0 0

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

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

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

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
DONALD D. MALONE, REGULATORY COMPLIANCE ENGINEER	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 December 26, 1988, between 1720 and 1736 PST, with Units 1 and 2 in Mode 1 (Power Operation) at 100 percent power, chemical drain tank (CDT) 0-2 was discharged without liquid radwaste discharge radiation monitor RM-18 operable, nor with additional discharge liquid sampling as required by Technical Specification (TS) 3.3.3.9 with RM-18 inoperable.

At 1701 PST, a non-licensed auxiliary operator inadvertently left RM-18 operation selector switch in the RESET position during performance of operating procedure (OP) G-1:II, "Liquid Radwaste System - Processing and Discharge of Liquid Radwaste."

At 1805 PST, the Unit 1 control operator discovered the RM-18 operation selector switch in the RESET position. He reported the inoperable monitor to the shift foreman, who then ordered an additional post discharge sample be taken, which was analyzed at 1924 PST and which showed that discharge had been within TS limits.

The root cause of this event is personnel error, cognitive, by a non-licensed auxiliary operator during performance of OP G-1:II.

Corrective actions taken to prevent recurrence include counseling of the operator regarding procedural compliance, review of this event by all plant operations personnel, and revision of applicable procedures to more clearly define requirements for operations personnel to have a procedure "in-hand."

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 3 1	— 0 0	0 2 OF 0 6

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

I. PLANT CONDITIONS

Units 1 and 2 were in Mode 1 (Power Operation) at 100% power.

II. DESCRIPTION OF PROBLEM

A. Problem:

On December 26, 1988, at approximately 1700 PST, in preparation for discharging chemical drain tank (CDT) 0-2, predischarge liquid sample results were provided to the Auxiliary Building auxiliary operator (AO) and an independent valve alignment of the discharge flow path was performed by the chemistry technician, Auxiliary Building Senior AO, and the Unit 1 AO. In addition, a functional check of the liquid radwaste (WD) discharge radiation monitor (RM) RM-18 and functional check of discharge valves (WD)(V) RCV-18/FCV-477 were performed by the Auxiliary Building Senior AO between 1701 and 1704 PST. The valve alignment and functional check were performed in accordance with Operating Procedure (OP) G-1:II, "Liquid Radwaste System - Processing and Discharge of Liquid Radwaste."

On December 26, 1988, at 1705 PST, discharge permit No. 88-389 was authorized by the Unit 1 Shift Foreman (SFM) and given to the Auxiliary Building Senior AO.

On December 26, 1988, between 1720 and 1736 PST, CDT 0-2 discharge was completed and at 1753 PST the discharge permit was returned to the SFM for his signature.

On December 26, 1988, at 1805 PST, the Unit 1 Control Operator observed that the Rad Monitor System Failure (PK11-22) and Rad Monitor System in Test (PK11-23) alarms were active with no known testing in progress. The Control Operator directed the Assistant Control Operator (ACO) to verify the status of the radiation monitors. The ACO discovered that the operation selector switch for RM-18 was in the RESET position, thus making RM-18 inoperable. It was determined that the RM-18 operation selector switch was inadvertently left in the RESET position during the functional check performed prior to discharge No. 88-389, and that RM-18 was therefore inoperable during discharge. This inoperability was reported to the shift foreman who then directed that a postdischarge CDT 0-2 sample be analyzed.

Technical Specification (TS) 3.3.3.9 requires that RM-18 be OPERABLE during liquid radwaste discharges. Action 40 of Table 3.3-12 allows discharges when RM-18 is inoperable provided two independent samples are collected and analyzed prior to the discharge. Since RM-18 was

not known to be inoperable, only one sample was taken prior to the discharge and the TS conditional surveillance requirement was not met.

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

Liquid radwaste discharge monitor RM-18 was inadvertently left in an inoperable condition following the predischarge functional check.

C. Dates and approximate times for major occurrences:

1. December 26, 1988, at 1701 PST: RM-18 made inoperable when operator leaves operation selector switch in RESET position following predischarge functional check.

2. December 26, 1988, at 1720 PST: Event Date - Discharge of CDT 0-2 initiated with RM-18 inoperable. Discharge of tank completed at 1736 PST.

3. December 26, 1988, at 1808 PST: Discovery Date - The Unit 1 Control Operator notes active alarms and finds RM-18 inoperable. RM-18 returned to the OPERATE mode and declared OPERABLE.

4. December 26, 1988, at 1924 PST: Postdischarge sample results on CDT 0-2 found to be consistent with predischarge values.

D. Other systems or secondary functions affected:

None.

E. Method of discovery:

The Unit 1 Control Operator noted that control room alarms associated with the radiation monitors were active with no known testing in progress. When the monitors were checked, it was found that the operation selector switch for RM-18 was in the RESET position.

F. Operator actions:

The mode selector switch for RM-18 was returned to the OPERATE position. The Shift Foreman was notified of the discovery that RM-18 had been inoperable during the discharge of CDT 0-2. The Shift Foreman requested that a CDT 0-2 postdischarge sample be taken and analyzed.

G. Safety System Responses:

None.

III. CAUSE OF THE PROBLEM

A. Immediate Cause:

The immediate cause of the problem was that the RM-18 operation selector switch had been left in the RESET position, which rendered RM-18 inoperable, during the discharge of CDT 0-2.

B. Root Cause:

The root cause of the event was determined to be personnel error, cognitive, in that a non-licensed senior auxiliary operator did not adequately verify that the RM-18 operation selector switch was returned to OPERATE following performance of the predischarge functional check.

An additional cause was that the operator performed the RM-18 functional check without having the procedure OP G-1:II in-hand. This procedure governing liquid radwaste discharges contains steps which verify that all alarms have cleared once the monitor is returned to the OPERATE mode. These checks were not performed. During discussions with the operator following the event, the operator stated that he did not believe that he was required to have the procedure "in hand" since the functional check of RM-18 was a relatively simple routine task. Nuclear Plant Administrative Procedure NPAP A-100, "General Authorities and Responsibilities of Nuclear Plant Operators," states that procedures shall be present and followed step-by-step for tasks which are extensive and complex, infrequently performed or those in which operations must be performed in a specified sequence. The functional check of RM-18 should have required direct use of the procedure.

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

IV. ANALYSIS OF THE PROBLEM

The initial sample of the tank taken prior to the discharge found the tank activity to be well within TS 3.11.1.1 and 3.11.1.2, allowable discharge limits. Following the discharge, a second sample was taken from the remaining contents of the tank. The results of the second sample were consistent with the initial sample, and verified that no activity change had occurred during the discharge. Therefore, based upon these sample analyses, the discharge was well within TS allowable discharge limits. Thus the health and safety of the public were not affected by this event.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

1. RM-18 was returned to service and a TS status sheet filed to document the time period over which the monitor was inoperable.

2. The remaining contents of CDT O-2 was analyzed; it was verified that the activity in the tank was the same as was found in the initial sample analysis.

B. Corrective Actions to Prevent Recurrence:

1. The operator involved in the event was counselled regarding the need for strict procedural compliance.

2. The event will be reviewed with all operations department personnel via an Operations Incident Summary emphasizing the need for strict procedural compliance and the need to review the requirements of NPAP A-100 with respect to procedure usage.

3. NPAP A-100 will be revised to more clearly define when operations department personnel are required to have a procedure "in-hand" when performing functions. In addition, a new Operations Department Policy will be issued to reinforce these requirements and provide specific examples.

VI. ADDITIONAL INFORMATION

A. Failed Components:

None.

B. Previous LERs on Similar Events:

LER 1-87-013-00 "Containment Ventilation Isolation Initiation Due to Personnel Error."

This LER reported an error made by a licensed operator who performing a source check on the incorrect radiation monitor prior to a liquid radwaste discharge. Lack of attention to detail and close proximity of the monitors were identified.

LER 1-87-008-00 "Containment Ventilation Isolation Due to Personnel Error."

This LER reported an error made by a nonlicensed auxiliary operator performing a source check on the incorrect radiation monitor prior to a liquid radwaste discharge due to inattention to detail and inadequate labeling of monitors located in close proximity.

LER 2-86-002-00 "Inoperability of Both RHR Trains Due to Operator Error."

This LER reported an error made by a nonlicensed operator who transferred the incorrect instrument panel to an alternate power supply due to inadequate self-verification.

LER 1-86-009-00 "Inadvertent Actuation of Auxiliary Feedwater Pump 1-3 Due to Personnel Error During Surveillance Testing."

This LER reported an error made by a licensed operator who actuated the incorrect slave relay because it was similarly numbered.

The above listed LERs have been addressed by PG&E with proactive procedural guidance, training sessions, and management commitments as documented in PG&E's June 15, 1987, Letter No. DCL-87-136 to the NRC regarding "Management actions taken to maintain the high level of performance at DCPP." PG&E is committed to continued efforts to minimize personnel and procedural errors that effect the safe and efficient operation of Diablo Canyon Units 1 and 2.

San Francisco, CA 94106
415/972-7000
TWX 910-372-6587

James D. Shiffer
Vice President
Nuclear Power Generation

January 24, 1989

PG&E Letter No. DCL-89-016

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 1-88-031-00
Liquid Radwaste Discharge With Radiation Monitor RM-18
Inoperable Due to Personnel Error

Gentlemen:

Pursuant to 10 CFR 50.73, PG&E is submitting the enclosed Licensee Event Report concerning a liquid radwaste discharge with radiation monitor RM-18 inoperable due to personnel error.

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
B. Norton
H. Rood
B. H. Vogler
CPUC
Diablo Distribution
INPO

Enclosure

DCl-88-OP-N146

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