CATEGORY 1

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RUSSELL,R. Pacific Gas & Electric Co.
OATLEY,D.H. Pacific Gas & Electric Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 99-S01-00:on 990307,discovered failed microwave transreceiver in protected area intrusion alarm sys.Caused by deficient checklist in security procedure.Conducted refesher training for security officers.With 990412 ltr.

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Pacific Gas and Electric Company

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April 12, 1999

PG&E Letter DCL-99-052

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

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Licensee Event Report 1-1999-S01-00
Failed Protected Area Intrusion Alarm Uncompensated for Extended Period Due to Deficient Procedure

Dear Commissioners and Staff:

Pursuant to the requirements of 10 CFR 73.71(d) and 10 CFR 73, Appendix G, Section I(c), PG&E is submitting the enclosed licensee event report regarding a failed protected area intrusion alarm that was uncompensated for an extended period due to a deficient procedure.

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

Sincerely,

David H. Oatley

cc: Steven D. Bloom
Ellis W. Merschoff
David L. Proulx
Diablo Distribution
INPO

Enclosure

WEC/2246/A0480450

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 7

TITLE (4)

Failed Protected Area Intrusion Alarm Uncompensated for Extended Period Due to Deficient Procedure

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
03	07	1999	1999	- S 0 1 -	0 0	04	12	1999	Diablo Canyon Unit 2	0 5 0 0 0 3 2 3

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (11)		
4	X	10 CFR	73.71(d)
POWER LEVEL (10)	X	OTHER	10 CFR 73, Appendix G, Section I.(c)
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 March 12, 1999, at 0934 PST, with Unit 1 in Mode 4 (Hot Shutdown) and Unit 2 in Mode 1 (Power Operation) at 100 percent power, PG&E discovered a failed microwave transceiver in the protected area intrusion alarm system located at the materials receiving facility. A compensatory measure was posted within 10 minutes.

On March 12, 1999, at 1306 PST, PG&E determined that the transceiver had been inoperable since March 7, 1999. PG&E also determined that personnel who performed required intrusion alarm testing in accordance with security procedures on March 9, 10, and 11, 1999, had failed to detect the inoperable transceiver. On March 12, 1999, at 1336 PST, a 1-hour, non-emergency report was made in accordance with 10 CFR 73.71 (b) (1). At 1530 PST, the failed transceiver was replaced and satisfactorily tested.

The root cause of the event was determined to be a deficient checklist in a security procedure.

Corrective actions include refresher training for all security officers and enhancement of the checklist.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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	1999	- S 0 1 -	0 0	2 OF 7

TEXT

I. Plant Conditions

Unit 1 was in Mode 4 (Hot Shutdown) for the ninth refueling outage. Unit 2 was in Mode 1 (Power Operation) at 100 percent power.

II. Description of Problem

A. Summary

On March 12, 1999, at 0934 PST, PG&E discovered a failed microwave (MW) transceiver in the protected area (PA) intrusion alarm system (IA) located at the materials receiving facility (MRF). A compensatory measure was posted within 10 minutes.

On March 12, 1999, at 1306 PST, PG&E determined that the transceiver had been inoperable since March 7, 1999. PG&E also determined that personnel who performed required intrusion alarm testing in accordance with security procedures on March 9, 10, and 11, 1999, had failed to detect the inoperable transceiver. On March 12, 1999, at 1336 PST, a 1-hour, non-emergency report was made in accordance with 10 CFR 73.71 (b) (1).

B. Background

Each PA perimeter intrusion alarm device is tested at least once a week in accordance with Security Procedure (SP) 304, "Operability Testing of Intrusion System."

When the MRF is opened, the physical boundaries for the PA in that area are reconfigured by an assigned nuclear security officer (NSO) in accordance with SP 405, "Incoming Package and Material Control." The NSO performs the required steps and requests verification from the secondary alarm station (SAS) operator, by radio communications, that alarms are properly received and reset. Specifically:

1. One double rolling gate (18 East and West) is opened and the associated alarms are disabled.
2. Microwave link 31 (Zone 618) associated with the double rolling gated is also disabled.
3. MW transceivers 17 East (Zone 630) and 17 West (Zone 629) are tested to ensure operability.

4. Gates 17 East (Zone 637) and 17 West (Zone 638) are closed, secured, and their balanced magnetic switches are tested.
5. The checklist in SP 405 is completed by the NSO as the alarms are received and reset.
6. Additionally, when the MRF is open, a watchperson is posted to monitor the reconfigured PA.

This process is reversed when the MRF is closed.

A perimeter fence check (PFC) is done every four hours per SP 314, "Watchtour System and Operation." During the PFC a security officer physically walks along the PA fence line. When the MRF is closed, the security officer conducting the PFC causes an incidental MW transceiver 17 East (Zone 630) alarm. The alarm is recorded by the security computer in SAS.

C. Event Description

On March 6, 1999, at 0706 PST, MW transceiver 17 East (Zone 630) was functionally tested and passed its weekly test in accordance with SP 304.

On March 7, 1999, at 0710 PST, without the MRF having been reconfigured for material handling, Zone 630 alarmed during the 0700 PFC. The security computer did not record the zone having alarmed during the 1100 PFC. Therefore, it is presumed to have stopped functioning between 0710 PST and approximately 1130 PST.

On March 9, 1999, the MRF was opened at 0931 and the MRF was reconfigured for material handling. As required by security procedures, Zone 630 was tested during the reconfiguration sequence and the checklist was used to control the proper sequence of testing. Step 7 of the checklist was intended to require alarming Zone 630 and allowing it to reset to ensure the zone was secure and functional. This step was checked off as complete, when in fact the zone did not alarm. The MRF was closed at 1630 PST.

On March 10, 1999, the MRF was opened at 0950 PST. Zone 630 did not alarm but was marked as complete on the checklist. The MRF was closed at 1445 PST.

TEXT

On March 11, 1999, the MRF was opened at 0931 PST. Zone 630 did not alarm but was marked as complete on the checklist. The MRF was closed at 1400 PST.

On March 12, 1999, at 0934 PST, during reconfiguration of the MRF, the SAS operator observed that Zone 630 did not alarm while testing was being performed in accordance with SP 405. After several attempts to alarm Zone 630 and disabling and resecuring the zone, a compensatory measure was posted. The compensatory measure was accomplished within 10 minutes of discovery. At 1306 PST, PG&E concluded a review of alarm records and determined that Zone 630 had been inoperable since March 7, 1999. At 1337 PST, a 1-hour non-emergency report was made to the NRC in accordance with 10 CFR 73.71 (b) (1). The Operations shift supervisor and the NRC resident inspector were advised of the event

On March 12, 1999, at 1430 PST, the Security Department began formal MRF refresher training which was conducted at each shift briefing for several days. At 1530 PST, the failed transceiver was replaced and satisfactorily tested. The compensatory measure was released.

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

None.

E. Dates and Approximate Times for Major Occurrences

1. March 7, 1999, at 0710 PST: Event date: Last alarm on Zone 630. Presumed to have failed between this time and 1130 PST this date.

2. March 12, 1999, at 0934 PST: Zone 630 was found inoperable.

3. March 12, 1999, at 1306 PST: Discovery date: PG&E discovered Zone 630 had been inoperable since March 7, 1999.

4. March 12, 1999, at 1337 PST: A 1-hour non-emergency report was made to the NRC in accordance with 10 CFR 73.71 (b) (1).

5. March 12, 1999, at 1530 PST: The failed transceiver was replaced and satisfactorily tested.

F. Other Systems or Secondary Functions Affected

None.

G. Method of Discovery

A SAS operator observed that Zone 630 (MW transceiver 17 East) failed to alarm when the MRF was being reconfigured. During a subsequent review of alarm histories, security personnel discovered that the MW transceiver had been inoperable since March 7, 1999.

H. Operator Actions

None.

I. Safety System Responses

None.

III. Cause of the Problem

A. Immediate Cause

1. A MW transceiver failed.

2. Security officers did not discover the failed transceiver while conducting reconfiguration testing in accordance with the checklist.

B. Root Cause

The root cause of the event was determined to be a deficient checklist in a security procedure.

TEXT

C. Contributory Cause

A contributory cause was identified as a specific lack of knowledge regarding the four alarm zones corresponding with the 17E and 17W transceivers and the balanced magnetic switches on the two gates. This condition, in conjunction with nonspecific communication with SAS during the reconfiguration, led officers to believe that they were satisfying all appropriate criteria. The NSO requested verification of alarms (17 East and 17 West) instead of specific zones or distinguishing between gate and transceiver alarms.

IV. Analysis of the Event

Microwave transceivers 17 East (Zone 630) and 17 West (Zone 629) are an integral part of the MRF reconfiguration. However, they are supplemented with a posted security officer each time the MRF is reconfigured for material handling.

A security officer was posted at the MRF for the reconfiguration on March 9, 10, and 11, 1999. When the transceiver was observed to be inoperable on March 12, 1999, the posted security officer was advised within 10 minutes and told to watch that particular area more closely. Additionally, the video capture and all other detection systems were operable at the time.

During the time Zone 630 was inoperable and the MRF was closed, the normal PA intrusion system in the area was operable and would have detected any intrusion attempts. There were no indications of any undetected access into the PA.

PG&E determined that there was no malevolent intent involved in the transceiver failure or the failure to properly test the transceiver and that no adverse conditions resulted.

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

TEXT

V. Corrective Actions

A. Immediate Corrective Actions

1. A security officer was posted within 10 minutes to watch the area affected by the failed transceiver.

2. The transceiver was replaced and satisfactorily performance tested.

3. An MRF refresher training brief was prepared and presented at shift briefings for several days. An attendance sheet was used to ensure all officers received the information.

B. Corrective Actions to Prevent Recurrence

1. The MRF reconfiguration checklist will be enhanced to clearly reflect the required actions to open and close the MRF and to ensure the intrusion alarm features are functional.

2. Sufficient information will be provided on the checklist to ensure there are clear alarm verification communications between the security officer at the MRF and the SAS operator.

VI. Additional Information

A. Failed Components

MW Transceiver.

B. Previous Similar Events

None.