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James D. Shiffer  
Senior Vice President and  
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Nuclear Power Generation

December 11, 1990

PG&E Letter No. HBL-90-056



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

Re: Docket No. 50-133, OL-DPR-7  
Humboldt Bay Power Plant, Unit 3  
Licensee Event Report 3-90-002-00  
Failure of Annunciator System

Gentlemen:

Pursuant to 10CFR 50.73(a)(2)(i)(B), PG&E is hereby submitting the enclosed Licensee Event Report concerning a failure of the remote annunciator for Unit 3. The failure was caused by the inadvertent reconnection of a faulty annunciator, for a decommissioned system, to the main annunciator system. The faulty annunciator rendered the Unit 3 remote annunciator incapable of audible or visual annunciation.

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

Sincerely,

A handwritten signature in cursive script, appearing to read 'J. D. Shiffer'. The signature is written in dark ink and is positioned above the typed name.

J. D. Shiffer  
cc: D. Martin  
J. B. Martin  
R. T. Nelson  
Humboldt Distribution

HB3-90-QC-N003

Enclosure

5137S/0085K/RLK/2246

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# LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>HUMBOLDT BAY UNIT 3</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 1 3 3</b>	PAGE (3) <b>1</b> OF <b>4</b>
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TITLE (4) **FAILURE OF ANNUNCIATOR SYSTEM**

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)			
MON	DAY	YR	YR	SEQUENTIAL NUMBER	REVISION NUMBER	MON	DAY	YR	FACILITY NAMES		DOCKET NUMBER (5)		
11	11	90	90	- 0   0   2	- 0   0	12	11	90			0   5   0   0   0		
												0   5   0   0   0	

OPERATING MODE (9) **N**

POWER LEVEL (10) **0 | 0 | 0**

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

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)

<b>PETER E. RIGNEY, PLANT ENGINEER</b>	TELEPHONE NUMBER
	AREA CODE <b>707</b> <b>444-0771</b>

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S	
X	I   B	S   O   L	D   1   0   8	Y						

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

ABSTRACT (16)

On November 11, 1990 at 0230, while the Unit was in SAFSTOR, an Operator was performing Surveillance Test Procedure (STP) 3.20.5, "Monthly Fire Protection Sprinkler Tests" when he discovered that the remote annunciator for Unit 3, which is in the continuously manned control station for the nonnuclear Units 1 and 2, would not annunciate. The Unit 3 Control Room is not continuously manned. The Administrative Controls section of the Technical Specifications VII.C.1.c requires that the Unit 3 control room be continuously manned, or as an alternative, audible and visual annunciation of all Unit 3 alarms be provided at the control station for Units 1 and 2. The time that the remote annunciator became inoperable is unknown, but this condition did not last for more than 8.5 hours. During this time the Unit 3 control room was periodically monitored and no alarms were observed.

The root cause of this event was failure of a solenoid that had reached end of life.

Corrective action to prevent recurrence included testing of the solenoids in the remaining annunciators to verify their integrity.

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  HUMBOLDT BAY UNIT 3	DOCKET NUMBER (2)  0 5 0 0 0 1 3 3	LER NUMBER (6)			PAGE (3)  2   of   4
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		90	- 0 0 2	- 0 0	

TEXT (17)

I. Plant Conditions

Unit 3 was in SAFSTOR.

II. Description of Event

A. Event:

On November 11, 1990, at 0230 PST, during the performance of STP 3.20.5, "Monthly Fire Protection Sprinkler Tests," the remote annunciator (IB)(ANN) for Unit 3 did not annunciate. The Unit 3 Control Room was not continuously manned and the Unit 3 alarms were not capable of being annunciated in the continuously manned control station in Units 1 or 2, in violation of the Administrative Controls section of the Technical Specifications VII.C.1.c.

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

Unit 3 Remote Annunciator

C. Dates and Approximate Times for Major Occurrences:

1. November 10, 1990, at 1804 PST: Annunciator tested and successfully performed all required functions.
2. November 11, 1990, at 0230 PST: It was discovered that the annunciator system was not capable of audible annunciation either locally or remotely and that the Control Room had not been continuously manned since the last time that the annunciator system had been verified functional.

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

The event was discovered during the performance of STP 3.20.5, "Monthly Fire Protection Sprinkler Tests, when an operator brought equipment into the alarm condition and the corresponding annunciator visibly alarmed, but the annunciator system horn failed to audibly annunciate the alarm condition and the Unit 3 Remote Annunciator failed to visibly and audibly alarm.

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
HUMBOLDT BAY UNIT 3	0 5 0 0 0 1 3 3	YEAR	ACQUISITION NUMBER	REVISION NUMBER	3   of   4
		90	- 0 0 2	- 0 0	

TEXT (17)

F. Operators Actions:

The event was immediately reported to Plant Management. The Unit 3 Control Room was continuously manned following the discovery of the event until the cause could be determined and corrected.

G. Safety System Responses:

None.

III. Cause of the Event

A. Immediate Cause:

The annunciator system failed to function due to a faulty solenoid (IB)(SOL) in an annunciator for a decommissioned system. The alarm input leads for decommissioned systems have been lifted which will normally cause the corresponding annunciator to display the alarm condition. The inactive annunciators are normally disengaged from the annunciator board by being unplugged, thereby maintaining electrical isolation from the annunciator system. This electrical isolation allows the inactive alarms for decommissioned systems to not display an alarm condition. The inactive annunciator with the faulty solenoid that caused the annunciator system to fail had inadvertently become electrically connected to the rest of the annunciator system. It remains unknown how the inactive annunciator became connected to the annunciator board.

B. Root Cause:

The root cause of this event was failure of a solenoid in an inactive annunciator which resulted in disabling the remote annunciator. The solenoid had reached its end of life.

IV. Analysis of the Event

A review of the Unit 3 logs and automatic data recordings reveals that no alarm conditions on equipment that is required by the plant Technical Specifications occurred during the event. All Spent Fuel Storage Pool Water samples were within the Technical Specification limits. There are no Safety Related functions served by the Unit 3 Annunciator System.

This situation does not affect the public's health and safety.

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	PAGE	OF
HUMBOLDT BAY UNIT 3	0 5 0 0 0 1 3 3	90	- 0 0 2	- 0 0	4	4

TEXT (17)

V. Corrective Actions

A. Immediate Corrective Actions:

- A. The Unit 3 Control Room was continuously manned from the time of discovery until the problem was diagnosed and corrected.
- B. All of the inactive annunciators have been removed from the annunciator board.
- C. The solenoids for the remaining annunciators have been tested to verify their integrity.

VI. Additional Information

A. Failed Components:

- 1. Solenoid that reached end of life.