

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Palo Verde Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 5 2 8	PAGE (3) 1 OF 0 2
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TITLE (4)  
Automatic Actuation of Balance of Plant Engineered Safety Feature 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	1	2	0	8	5	0	0	4			0 5 0 0 0
0	1	2	0	8	5	0	0	2			0 5 0 0 0

OPERATING MODE (9) 6	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below end in Text, NRC Form 365A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)

NAME William F. Quinn (extension 6087)	TELEPHONE NUMBER 6 0 2 9 4 3 - 7 2 0 0
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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)       NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Automatic actuation of the Containment Purge Isolation Actuation Signal (CPIAS) and a cross trip actuation of the Control Room Essential Filtration Actuation Signal occurred due to a spurious auxiliary equipment failure alarm on the containment purge radiation monitoring unit. All attendant equipment actuated satisfactorily. The cause of the auxiliary equipment failure was indeterminate.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Palo Verde Unit 1	DOCKET NUMBER (2)  0   5   0   0   0   5   2   8	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8   5	-   0   0   4	-   0   0	0   2	OF

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

On January 20, 1985 at 0520 Palo Verde Unit 1 was in Mode 6. Initial fuel loading had been completed and Train B of shutdown cooling was in operation when the Balance of Plant Engineered Safety Features Actuation System (BOP/ESFAS) was automatically actuated by a spurious auxiliary equipment failure alarm from the Containment Purge Radiation Monitor. This spurious auxiliary equipment failure alarm caused actuation of the Containment Purge Isolation Actuation System (CPIAS) Train A. This resulted in a cross trip of CPIAS Train B and cross trips of Control Room Essential Filtration Actuation Signal Trains A and B. All of these trips are per design and all attendant equipment operated satisfactorily.

The containment Purge Radiation Monitor was not required to be operable per Technical Specification 3.3.3.1 at this time as the power access purge was not in operation.

The CPIAS signal will operate from either a high radiation signal or an equipment failure signal from the containment purge radiation monitor's relays located in the remote indicating controller located in the Control Room. The spurious auxiliary equipment failure alarm lasted for approximately twelve seconds as indicated on the Radiation Monitoring System computer. The computer does not identify and store the cause of the spurious auxiliary equipment failure alarm.

All indication available on the radiation monitor indicated that it had returned to operable status and the radiation monitor was not declared inoperable.

During subsequent testing of the radiation monitor the plant was unable to generate a similar actuation. The plant design architect engineer and vendor were requested to assist in identifying troubleshooting techniques to be used. The following actions were taken:

(1) Simulated Voltage and Frequency Transients

All available loads on the bus supplying the radiation monitor Remote Indication Controller (RIC) were operated while monitoring bus voltage and frequency. Although voltage transients were observed, no actuation occurred.

(2) Simulated Electro-magnetic Interference

Two-way radios were operated in front of the radiation detectors, radiation monitor micro-computers and the Remote Indication Controllers. No actuation occurred.

The plant BOP/ESFAS systems operated in a fail safe manner with a spurious failure alarm of the radiation monitoring system.

Subsequent similar actuation occurred on January 22 and 24 and will be reported in a separate LER. Chart recorders were attached to record the BOP/ESFAS actuation voltage across the RIC's relays on January 25, 1985 and no spurious actuations have occurred since January 25, 1985.