

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Palo Verde Unit 2** DOCKET NUMBER (2) **050005219** PAGE (3) **1 OF 013**

TITLE (4) **MSIS Actuation Due to an Incorrect Amperage Fuse**

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)
02	20	86	86	002	00	03	24	86			05000
<p>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)</p>											

OPERATING MODE (9) 5	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0.010	20.405(a)(1)(i)	50.36(c)(1)		50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)		50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)	
	20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12) NAME **William F. Quinn, Manager - Nuclear Licensing (Extension 4087)** TELEPHONE NUMBER **6102943172010**

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS
B	JIE	FIU	XI919	N					

SUPPLEMENTAL REPORT EXPECTED (14) YES (If yes, complete EXPECTED SUBMISSION DATE) NO
 EXPECTED SUBMISSION DATE (15) **015011816**

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

On February 20, 1986, at 0509, with Palo Verde Unit 2 in Mode 5 (COLD SHUTDOWN) at 0 percent reactor power, a Train A Main Steam Isolation System (MSIS) actuation occurred. This was an actuation of an Engineered Safety Feature (ESF). All other equipment operated as designed.

The cause of this event was an undersized fuse in the 2-4 logic trip path for Train A MSIS. The fuse was found to be a 4 amp fuse installed in a location where an 8 amp fuse was required. An investigation is being conducted into the root cause of how and when the incorrect fuses were installed. A supplement is forecast for submittal by May 1, 1986.

As corrective action, an engineering evaluation has been submitted to the vendor for his evaluation and correction of the schematics. A work order has been developed to verify that fuses in the similar circuits in Unit 1 are appropriately sized. Performance of the work order is scheduled during the March 1986 outage. The surveillance test has been satisfactorily completed in Units 1 and 2. Work orders have been completed to verify the fuses in similar locations in Unit 2.

A similar event occurred and is being reported in LER 86-009-00.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

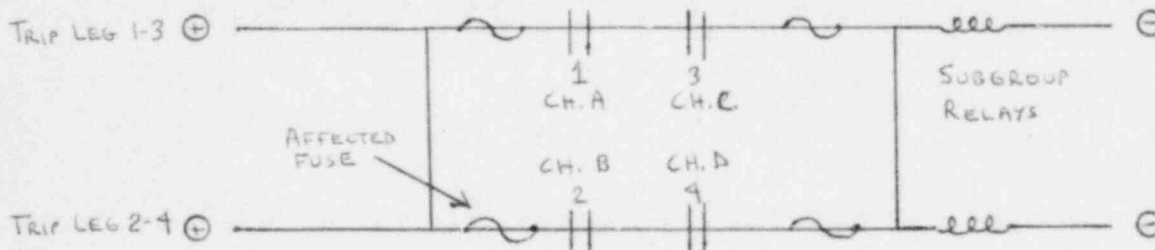
FACILITY NAME (1) Palo Verde Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 5 2 9	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 6	- 0 0 2	- 0 0	0 2	OF	0 3

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

On February 20, 1986, at 0509, with Palo Verde Unit 2 in Mode 5 (COLD SHUTDOWN) at 0 percent reactor power, a Train A Main Steam Isolation System (MSIS) (JE) actuation occurred. This was an automatic actuation of an Engineered Safety Feature (ESF). All equipment operated as designed.

The initial performance of the Surveillance Test of the Plant Protection System (PPS)(JE) Monthly Functional Test had been interrupted so that electrical maintenance work could be performed on a supply breaker. With this supply breaker de-energized, the 1-3 leg of both the Train A and Train B MSIS logic trip path is also de-energized. This caused all MSIS logic trip path current to pass through the respective 2-4 legs, and resulted in the actuation of a Train A MSIS.

The cause of this event was an undersized fuse (FU) in the 2-4 leg of the Train A MSIS logic trip path. The 2-4 leg fuse was unable to support the current load of both legs, resulting in the actuation of the A Train MSIS devices. An investigation determined that the A Train schematic was not correct. A discrepancy between the PPS initiation panel schematics was discovered in that the indicated fuse ratings were different between the two ESFAS trains for the same ESFAS features.



The root cause of the event was an incorrect amperage fuse (vendor Bussman, Model Number: KLM4), which caused the trip on the MSIS 2-4 leg. The fuse was found to be a 4 amp fuse in a location where the panel calls for an 8 amp fuse. An investigation is being conducted into the root cause of how and when the fuse was installed.

As an immediate corrective action, an 8 amp fuse was installed in the affected path. As corrective action, an engineering evaluation has been submitted to the vendor for his evaluation and corrections of the schematics. A work order has been developed to verify that the fuses in similar circuits in Unit 1 are appropriately sized. Performance of the work order is scheduled during the March 1986 outage. The surveillance test has been satisfactorily completed in Units 1 and 2. Work orders have been completed to verify the fuses in similar locations in Unit 2.

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TEXT (If more space is required, use additional NRC Form 288A's) (17)

There have been no personnel errors identified at this time. There were no system or safety train failures that contributed to the event. No safety limits were approached, no fission product barriers were challenged, and all equipment functioned as designed. Therefore, there was no threat to the health and safety of the public.

A supplement is forecast for submittal by May 1, 1986.

A similar event occurred and is being reported in LER 86-009-00.



Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

March 24, 1986
ANPP-35651-EEVB/BJA/98.05

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

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 2
Docket No. STN 50-529 (License NPF-46)
Licensee Event Report - 86-002-00
File: 86-020-404

Dear Sirs:

Attached please find Licensee Event Report (LER) No. 86-002-00 prepared and submitted pursuant to 10 CFR 50.73. In accordance with 10 CFR 50.73(d), we are herewith forwarding a copy of the LER to the Regional Administrator of the Region V Office.

If you have any questions, please contact me.

Very truly yours,

E. E. Van Brunt, Jr.
Executive Vice President
Project Director

EEVB/BJA/rw
Attachment

cc: J. B. Martin (all w/a)
R. P. Zimmermar
A. L. Hon
E. A. Licitra
A. C. Gehr
INPO Records Center

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