

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																																																																				
TITLE (4) Automatic Actuation of Engineered Safety Features Due to Bus Fault																																																																																								
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)																																																
1			0			2			9			8			5			8			5			-			0			7			4			-			0			1			0			5			0			9			8			6			Palo Verde Unit 2													0 5 0 0 0 5 2 9												
1			0			2			9			8			5			8			5			-			0			7			4			-			0			1			0			5			0			9			8			6			Palo Verde Unit 3													0 5 0 0 0 5 3 0												
OPERATING MODE (9) 3									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									20.402(b)									20.405(c)									X 50.73(a)(2)(iv)									73.71(b)																																																				
									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 365A)																																																				
									20.405(a)(1)(iii)									50.73(a)(2)(i)									50.73(a)(2)(viii)(A)																																																													
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LICENSEE CONTACT FOR THIS LER (12)																																																																																								
NAME William F. Quinn, Manager - Nuclear Licensing (Extension 4087)															TELEPHONE NUMBER 6 0 2 9 4 3 - 7 2 0 0																																																																									
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																																																								
CAUSE			SYSTEM			COMPONENT			MANUFACTURER			REPORTABLE TO NRC			CAUSE			SYSTEM			COMPONENT			MANUFACTURER			REPORTABLE TO NRC																																																													
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SUPPLEMENTAL REPORT EXPECTED (14)																																																																																								
YES (If yes, complete EXPECTED SUBMISSION DATE)															X NO																																																																									
EXPECTED SUBMISSION DATE (15)															MONTH DAY YEAR																																																																									

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

On October 29, 1985, Palo Verde Unit 1 was in Mode 3 (HOT STANDBY) at 565 degrees F and 2250 psia. Reactor Coolant Pump (RCP) 2A was started at 1320 and normal RCP running indication was observed. Approximately 30 seconds later, a loss of power was experienced to the 13.8 kV bus NAN-S01 due to an 86 lockout on the cross-tie breaker NAN-S03B. The cause of the 86 lockout was a bus fault between buses NAN-S03 and NAN-S01 due to improper installation during construction. This also caused a loss of power to radiation monitors which actuated the Fuel Building Essential Ventilation Actuation System (FBEVAS), the Control Room Essential Filtration Actuation System (CREFAS) and the Containment Purge Isolation Actuation System (CPIAS). All systems performed as designed and at 1346 the FBEVAS, CREFAS, and CPIAS were all reset.

The root cause of the incident was the methodology used during the original construction and installation of the Calvert Buses, since the approved installation specifications were not followed. The incident occurred due to an insulation insert under the boot connection not being installed. This insert was also found missing on other connections.

To prevent recurrence, Calvert Buses in Units 1 and 2 have been inspected at flexible and solid splices, and properly repaired where needed. Unit 3 is in the process of a similar inspection and reworks will be conducted as necessary.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1) Palo Verde Unit 1	DOCKET NUMBER (2) 050005218	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		85	074	01	02	OF	02

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

This is a supplement to LER 85-074-00.

On October 29, 1985, Palo Verde Unit 1 was in Mode 3 (HOT STANDBY) at 565 degrees F and 2250 psia. Reactor Coolant Pump (RCP)(AB)(P) 2A was started at 1320 and normal RCP running indication was observed. Approximately 30 seconds later, a loss of power was experienced to the 13.8 kV bus NAN-S01 (EA) (NSBU) due to an 86 lockout on the cross-tie breaker NAN-S03B (EA)(BKR). Cause of the 86 lockout was a bus fault between buses NAN-S05 (EA) (NSBU) and NAN-S01. This also caused a loss of power to radiation monitors (IL) which actuated the Fuel Building Essential Ventilation Actuation System (FBEVAS)(JE), Control Room Essential Filtration Actuation System (CREFAS)(JE) and Containment Purge Isolation Actuation System (CPIAS)(JE). All systems performed as designed and, at 1346, FBEVAS, CREFAS, and CPIAS were all reset. The event lasted a total time of approximately 26 minutes.

The root cause of the incident was the methodology used during the original construction and installation of the Calvert Buses, since the approved installation specifications were not followed. The incident occurred due to an insulation insert under the boot connection not being installed. This insert was also found missing on other connections.

To prevent recurrence, all the Calvert Buses in Units 1 and 2 have been inspected at flexible and solid splices, and reworked where necessary. Unit 3 is in the process of a similar inspection and reworks will be conducted as necessary.

The inspections and reworks have been/are being conducted under the controls of the licensee's work control program to ensure timely and complete corrective actions.

There were no unusual characteristics of the work location, no errors in the installation specification, and no component, system, or safety train failures that contributed to the event. No safety limits were approached, no fission product barriers were challenged, and all safety equipment functioned as designed. Therefore, there was no threat to the health and safety of the public.

No similar events have previously occurred.



Arizona Nuclear Power Project

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

May 9, 1986
ANPP-36542-EEVB/JRP-98.05

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

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1
Docket No. STN 50-528 (License NPF-41)
Licensee Event Report - 85-074-01
File: 86-020-404

Dear Sirs:

Attached please find Supplement Number 01 to Licensee Event Report (LER) No. 85-074-00 prepared and submitted pursuant to 10 CFR 50.73. In accordance with 10 CFR 50.73(d), we are herewith forwarding a copy of this report to the Regional Administrator of the Region V Office.

If you have any questions, please contact me.

Very truly yours,

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

EEVB/PGN/rw
Attachment

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

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