NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Palo Verde Unit 1	0 5 0 0 0 5 2 8	1 OF 0 3

TITLE (4)

Automatic Actuation of Balance of Plant Engineered Safety Features 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 4	2 5	8 5	8 5	0 2 7	0 1		0 3	2 7	8 6		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
4		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 0		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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
William F. Quinn, Manager - Nuclear Licensing (Extension 4087)	AREA CODE 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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

This Supplemental Report is provided to include additional information.

On April 25, 1985, at 1345 Palo Verde Unit 1 was in Mode 4, HOT SHUTDOWN, when the Control Room Essential Filtration Unit was automatically operated by a spurious alarm/actuation from the Control Room Ventilation Process Radiation Monitor (RU-29). Control Room Normal Air Handling Unit isolation dampers HJB-M01 and HJB-M55 failed to close as required. The cause of the isolation dampers failing to close was foreign matter in the air supply lines to the damper actuators. All other affected equipment operated satisfactorily.

The following activities have been completed at this time:

1. A temporary modification, upgrading the grounding system, was installed for one month and a Plant Change Request has been approved to install an isolated grounding system for the Radiation Monitoring System. The projected completion date of this plant change is July 1, 1986.
2. The radiation monitor's detector and noise circuitry were tested satisfactorily.
3. The high radiation trip setpoint for this radiation monitor was raised to a new Technical Specification limit.
4. The air supply lines to the damper actuators were blown down and the dampers were satisfactorily operated.

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This supplemental report includes additional information obtained since the original report was submitted.

On April 25, 1985, at 1345 Palo Verde Unit 1 was in Mode 4, HOT SHUTDOWN, when the Control Room Essential Filtration Unit was automatically operated by a spurious alarm/actuation from the Control Room Ventilation Process Radiation Monitor (RM). Control Room Normal Air Handling Unit isolation dampers (DMP) HJB-M01 and HJB-M55 failed to close as required. All other affected equipment operated satisfactorily.

The Control Room Essential Filtration Unit is actuated from the Balance of Plant Engineered Safety Features Actuation System (JE) which receives a signal from the Control Room Ventilation Radiation Monitoring Unit (RU-29). The signal operated from a high radiation alarm in the radiation monitor. The system computer identified that high radiation caused the trip, with the radiation level indicating 2.71E-06 micro-curies per milliliter with a setpoint of 2.00E-06 micro-curies per milliliter. The duration of the alarm was less than 16 seconds.

This actuation occurred simultaneously with a failure to start of Diesel Generator "A" (DG). Some support equipment from the Diesel Generator is supplied from the same motor control center as the air sample pump for the radiation monitor. Previous and subsequent starts of the Diesel Generator have had no effect on the operation of the radiation monitor. It is therefore, believed that these simultaneous failures are coincidental. The cause of the high radiation signal was not identified. The range of the instrument is 1E-06 to 1E-01 micro-curies per milliliter. The setpoint of 2.0E-06 was the Technical Specification required setpoint, but this value was near the lower end of the operating range of the detector. Routine radiological surveys did not detect airborne radiation above naturally occurring background levels. It is believed that these random spikes of radiation levels are due to electronic circuit noise.

The following activities on the radiation monitoring system have been completed at this time:

1. The grounding design utilized in the Radiation Monitoring System (IL) and the effects that noise spikes in the ground system may have on the radiation monitors have been evaluated. A Temporary Modification was installed for one month to upgrade the grounding system and a Plant Change Request has been approved to install an isolated grounding system for the Radiation Monitoring System.

2. The radiation monitor was subjected to a source. The monitor and the detector noise discrimination circuitry exhibited no degradation from initial calibration.

3. A change to the Technical Specifications was submitted and approved to raise the high radiation trip setpoint to less than or equal to 2.0E-5 micro-curies per milliliter. After the setpoint was raised to the new Technical Specification limit, the plant has not experienced any high radiation trips on the Control Room Ventilation Radiation Monitors. The radiation monitor has been returned to OPERABLE status.

The cause of the failure of the isolation dampers to close has been determined to be foreign matter in the air supply lines to the damper actuators. The air supply lines were blown down and satisfactory operation of these dampers has been demonstrated.

This actuation is considered random and is similar to events that occurred on January 19, 1985, and reported on LER 85-003-00; February 6, 1985, and reported on LER 85-011-00; March 24, 1985, and reported on LER 85-011-01; and April 17, 1985, and reported on LER 85-031-00.

Arizona Nuclear Power Project
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

March 27, 1986
ANPP-35759/EEVB/BJA/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 - 85-027-01
File: 86-020-404

Dear Sirs:

Attached please find Supplement Number 01 to Licensee Event Report (LER) No. 85-027-00 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. E. Van Brunt, Jr.
Executive Vice President
Project Director

EEVB/BJA/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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