

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 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 4	2 5	8 5	8 5	0 2 7	0 0								0 5 0 0 0			
OPERATING MODE (9) 4			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)													
POWER LEVEL (10) 0 1 0 1 0			20.402(b)				20.406(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)	
			20.406(a)(1)(i)				50.38(c)(1)				<input type="checkbox"/> 50.73(a)(2)(v)				73.71(e)	
			20.406(a)(1)(ii)				50.38(c)(2)				<input type="checkbox"/> 50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
			20.406(a)(1)(iii)				50.73(a)(2)(i)				<input type="checkbox"/> 50.73(a)(2)(viii)(A)					
			20.406(a)(1)(iv)				50.73(a)(2)(ii)				<input type="checkbox"/> 50.73(a)(2)(viii)(B)					
			20.406(a)(1)(v)				50.73(a)(2)(iii)				<input type="checkbox"/> 50.73(a)(2)(ix)					
LICENSEE CONTACT FOR THIS LER (12)																
NAME William F. Quinn, Manager-Nuclear Licensing (Extension 4087)										TELEPHONE NUMBER 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 NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS						
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input type="checkbox"/> NO		0 9	3	0 8 5

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

Automatic actuation of the Control Room Essential Filtration Actuation Signal occurred due to a spurious high radiation alarm on the radiation monitoring unit (RU-29). Control Room normal air handling unit Dampers HJB-M01 and HJB-M55 failed to close as required. All other attendant equipment operated satisfactorily.

The root cause and final corrective action regarding this event are still under investigation and will be addressed in a supplement to this report.

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

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Palo Verde Unit 1	0 5 0 0 0 5 2 8 8 5	-	0 2 7	-	0 0	0 2 OF 0 2

TEXT (If more space is required, use additional NRC Form 365A's) (17)

On April 25, 1985, at 1345 Palo Verde Unit 1 was in Mode 4 when the Control Room Essential Filtration unit was automatically operated by a spurious alarm/actuation from the Control Room ventilation process radiation monitor. Control Room normal air handling unit dampers HJB-M01 and HJB-M55 failed to close as required. All other attendant equipment operated satisfactorily.

The Control Room Essential Filtration Unit is actuated from the Balance of Plant Engineered Safety Features Actuation System 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 $2.71\text{E}-06$ with a set point of $2.00\text{E}-06$. The duration of the alarm was less than 16 seconds.

This actuation occurred simultaneously with a failure to start of Diesel Generator "A". Some support equipment for 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 $1\text{E}-06$ to $1\text{E}-01$ microcuries per milliliter. The setpoint of $2.0\text{E}-06$ is the Technical Specification required setpoint, but this value is near the lower end of the operating range of the detector. Routine Radiological Surveys have not detected 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 are ongoing at this time:

1. Evaluation of the design of grounding utilized in the Radiation Monitoring System and the effects that noise spikes in the ground system may have on the radiation monitors.
2. Evaluation of the possible degradation of the radiation monitor's detector and noise discrimination circuitry.
3. Evaluation of the possibility of raising the radiation monitor's alarm setpoint to a value away from the low level electronic noise while still maintaining a safe environment for control room habitability.
4. This radiation monitor is being declared inoperable and the setpoint is being raised to $1\text{E}-04$ to evaluate if subsequent spikes are of sufficient magnitude to cause further actuations.

The cause of the failure of the dampers has been determined to be foreign matter in the air supply lines to the dampers. 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

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ANPP-32735-EEVB/WFQ

May 25, 1985

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 No. NPF-34
Licensee Event Report - Automatic Actuation of Balance of
Plant Engineered Safety Feature System
File: 85-056-026; G.1.01.10

Dear Sirs:

Attached please find Licensee Event Report (LER) No. 85-027-00 prepared and submitted pursuant to 10 CFR 50.73. This LER addresses an automatic actuation of the Balance of Plant Engineered Safety Feature System. 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 or concerns, please contact me.

Very truly yours,

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

EEVB/GEC/dlm
Attachment

cc: J. B. Martin
R. P. Zimmerman
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