

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 3
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TITLE (4)
Entered LCO 3.0.3 Due to Inoperable Containment Isolation Valves

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 9	0 2	8 6	8 6	0 4	8	0 0	1 0	0 2	8 6			0 5 0 0 0 0
												0 5 0 0 0 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 1 0 1 0	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	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)						
	20.405(a)(1)(iii)		X 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 Thomas R. Bradish, Compliance Supervisor (Ext. 6936)	TELEPHONE NUMBER 6 1 0 2 9 1 3 1 2 - 1 5 1 3 1 0 1 0
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	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)

At 2138 MST on September 2, 1986, and at 0848 MST on September 3, 1986, Palo Verde Unit 1 was in Mode 3 (Hot Standby) when Technical Specification (T.S.) Limiting Condition for Operation (LCO) 3.0.3 was entered due to not meeting the ACTION requirements of T.S. 3.6.3.

On September 2, 1986, the "B" accumulator for a Main Steam Isolation Valve (MSIV) was inoperable. At 2138 the MSIV was taken to slow open and during the open evolution the "A" accumulator pressure decreased below minimum. The valve was declared inoperable and LCO 3.0.3 was entered. At 2148 LCO 3.0.3 was exited.

On September 3, 1986, a Feed Water Isolation Valve (FWIV) was inoperable at 0848 the other FWIV was taken to slow close and the A and B accumulators pressure decreased below minimum during the close evolution and LCO 3.0.3 was entered. At 0856 LCO 3.0.3 was exited.

The cause of the loss of accumulator pressure in both cases was an oil flow directing valve that must shift to block off the accumulator oil line during a slow close or slow open operation. During the shifting of this valve some oil is lost back to the oil reservoir.

As corrective action, a Technical Specification change will be pursued which will allow the MSIVs and FWIVs to complete a normal valve evolution without declaring the valves inoperable.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Palo Verde Unit 1	DOCKET NUMBER (2) 05000528886	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		86	048	010	02	OF	03

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

At 2138 MST on September 2, 1986, and at 0848 MST on September 3, 1986, Palo Verde Unit 1 was in Mode 3 (Hot Standby) when Technical Specification (T.S.) Limiting Condition for Operation (LCO) 3.0.3 was entered due to not meeting the ACTION requirements of T.S. 3.6.3. The events were identified by the control room operator (utility-licensed) upon receiving hydraulic pressure low annunciator (ANN) alarms (ALM) on the main control board (MCBD).

On September 1, 1986, the "B" accumulator (ACC) for a Main Steam Isolation Valve (MSIV) (ISV) was isolated for troubleshooting of spurious MSIV actuations. The "A" accumulator was operable thereby maintaining the MSIV operable since only one accumulator is required for the MSIV to perform its design function. At 2138 on September 2, 1986 the control room operator (utility-licensed) placed the handswitch (HS) for the MSIV to the slow open position in order to open the valve (V). At this time the "A" accumulator pressure decreased below the minimum required and the MSIV was declared inoperable and LCO 3.0.3 was entered. The MSIV requires approximately six (6) minutes to travel from the close to the open position. Upon reaching the open position the accumulator pressure was restored to above the minimum by the integral hydraulic pump (P) and at 2148 LCO 3.0.3 was exited and the MSIV declared operable. This event lasted approximately 10 minutes.

At 0612 on September 3, 1986, a Feed Water Isolation Valve (FWIV) (ISV) was declared inoperable due to low accumulator pressure in both A and B accumulators and T.S. 3.6.3 was entered. At 0848 the other FWIV handswitch was placed in the slow close position in order to meet the ACTION requirements of T.S. 3.6.3. During the close cycle, which takes approximately six (6) minutes, the accumulator pressure dropped below the minimum required. This FWIV was then declared inoperable and LCO 3.0.3 was entered. Upon reaching the closed position the accumulator pressure was restored above minimum by the integral hydraulic pump and LCO 3.0.3 was exited at 0856. This event lasted 8 minutes.

The cause of both events was low accumulator pressure during a normal valve evolution. The root cause of the loss of accumulator pressure is that for a slow close or slow open evolution, an oil flow directing valve must shift to block off the accumulator oil line. During the shifting of this valve, some oil is lost back to the oil reservoir. This loss of oil from the hydraulic system will decrease the pressure. When the pressure decreases the integral hydraulic pump commences to recharge the accumulator. The accumulator is then fully recharged after completion of valve movement. The time required to recharge the accumulators will depend on how low the pressure is reduced. This loss of pressure only occurs during a slow open or slow close evolution. During a fast close cycle the accumulator pressure is quickly dumped to ensure a fast close of the valve. There is not a fast open cycle on these valves. On the MSIV's the two accumulators are independent and redundant; thus, normally only one accumulator is affected by a slow operation. On the FWIVs the two accumulators are in parallel and both are affected by a slow operation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

The configuration where both accumulators on a MSIV and both FWIVs in a single line are rendered inoperable due to routine operation is not considered normal and could only be created as described above. Normally there would be a fully charged accumulator on a MSIV available while the other accumulator operates the valve. With the FWIVs there would be the second valve in line operable while the other valve is being operated.

As corrective action, a Technical Specification change will be pursued which will allow the MSIVs and FWIVs to complete a normal valve evolution without declaring the valves inoperable. Until final resolution of this issue, an Operational Department Experience Report (ODER) will be issued to ensure operation's personnel are cognizant of the valve operation when in this configuration.

There were no other structures, systems or components inoperable, other than those previously mentioned, prior to the event which contributed to the event. There were no automatic or manual safety system responses. There were no safety limits approached and no fission product barriers were challenged. Therefore, there was no threat to the health and safety of the public.

There have not been any similar events previously reported.



Arizona Nuclear Power Project

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ANPP-00087-JGH/TDS/JEM/96.03

October 2, 1986

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
Licensee Event Report-86-048-00
File: 86-020-404

Dear Sirs:

Attached please find Licensee Event Report (LER) No.86-048-00 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 T. R. Bradish, Compliance Supervisor at (602)932-5300 Ext.6936.

Very truly yours,

J. G. Haynes
Vice President
Nuclear Production

JGH/JEM/dh

Attachment

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