

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <u>Palo Verde Unit 1</u>	DOCKET NUMBER (2) <u>0 5 0 0 0 5 2 8</u>	PAGE (3) <u>1 OF 0 3</u>
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TITLE (4)  
Isolation of Plant Protection Channel

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)																																			
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) <u>3</u></td> <td colspan="11">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) <u>0 0 0</u></td> <td><input type="checkbox"/> 20.402(b)</td> <td><input type="checkbox"/> 20.405(c)</td> <td><input type="checkbox"/> 50.73(a)(2)(iv)</td> <td><input type="checkbox"/> 73.71(b)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(i)</td> <td><input type="checkbox"/> 50.38(e)(1)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)</td> <td><input type="checkbox"/> 73.71(e)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(ii)</td> <td><input type="checkbox"/> 50.38(c)(2)</td> <td><input type="checkbox"/> 50.73(a)(2)(vi)</td> <td rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(iii)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(iv)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(x)</td> <td></td> </tr> </table>												OPERATING MODE (9) <u>3</u>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)											POWER LEVEL (10) <u>0 0 0</u>	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(e)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	
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LICENSEE CONTACT FOR THIS LER (12)

NAME <u>W. F. Quinn, Manager - Nuclear Licensing (Extension 4087)</u>	TELEPHONE NUMBER AREA CODE: <u>6 0 2</u> NUMBER: <u>9 4 3 - 7 2 0 0</u>
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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)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15) MONTH:    DAY:    YEAR:
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On July 17, 1985, at Palo Verde Unit 1, a containment pressure transmitter isolation valve was discovered closed. The transmitter provides an input (one of four channels) to the 2 out of 4 coincidence logic used to activate the containment spray portion of the Engineered Safety Features Actuation System (JE). With the transmitter isolation valve closed the instrument channel was inoperable. Consequently, Technical Specification L.C.O. 3.3.2 ACTION Statement 13 was violated because the ESFAS channel was not placed in the bypassed or tripped condition.

The instrument channel was declared inoperable and an investigation initiated. Maintenance equipment history indicated the last work associated with the instrument valve was an instrument calibration procedure performed on April 25, 1985. The actual date on which the instrument valve was closed, is indeterminate. During the time period the valve was closed, a potential impact on the safe operation of the plant existed, however, during the time period of April 25, 1985 to July 17, 1985, there were no conditions that required a containment spray actuation.

As corrective action, calibration procedures will be revised to better define equipment restoration requirements by providing specific steps for verifying (including independent verification) instrument valve positions in lieu of less specific statements such as "return the transmitter to service."

Procedure revisions and corresponding retraining will be completed prior to the next performance date of each of the procedures with all procedures revised by October 15, 1985.

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TEXT (if more space is required, use additional NRC Form 368A's) (17)

On July 17, 1985, at 0004 hours, Palo Verde Unit 1 was in Mode 3 (565 degrees F and 2250 psia) with a containment wide-range pressure channel check surveillance procedure in progress. The results of the channel check indicated a variation among the four independent channel indicators which was greater than allowed by the procedure. The containment wide-range pressure channels provide input to the 2 out of 4 coincidence logic used to actuate the containment spray portion of the Engineered Safety Features Actuation System (JE). The Reactor Operator determined the Channel "C" indication to be questionable, declared the channel inoperable, and commenced an investigation.

Following initial troubleshooting actions, the decision was made to verify channel "C" calibration by performance of the procedure. At 1030 hours, the channel "C" transmitter isolation valve was discovered to be closed. Control Room Operators were notified and immediately requested verification of the other containment pressure channel isolation valve positions. Transmitter isolation valves were verified to be open for all containment pressure channels. Following completion of the channel "C" calibration procedure and opening of the transmitter isolation valve, the channel was declared OPERABLE. As a precautionary measure, the instrument isolation valves were verified to be correctly positioned on all instrumentation channels governed by Technical Specifications. All valves were found to be positioned correctly and documented as such at 1430 hours on July 18, 1985.

The investigation into the maintenance history for the channel "C" transmitter identified the last work performed was the instrument channel calibration surveillance procedure on April 25, 1985. The restoration section of that procedure contained an action step for "returning the transmitter to service" and an action step for independent verification.

In an attempt to determine when the channel "C" isolation valve had been closed, a review of completed channel check surveillance procedure data sheets was performed. The channels in question are wide-range channels, displaying a range of -4 to +85 psig on an indicator scale with 1 psig increments. Normal containment pressure indication on the wide range channels was between 0 and 1.5 psig. Due to the relatively infrequent and small variations in containment pressure combined with the range and increments of the indicator scale, the review of containment pressure channel check records was inconclusive in determining when the channel "C" isolation valve had been closed.

The date/time the channel "C" containment wide-range pressure transmitter isolation valve was closed is indeterminate. During the indeterminate time interval from valve closure to its reopening on July 19, 1985, the channel was inoperable but not declared so. Consequently, Technical Specifications L.C.O. 3.3.2 ACTION Statement 13 was violated. ACTION Statement 13 requires the inoperable Channel to be placed in the bypassed or tripped condition within 1 hour, if the number of channels OPERABLE is less than the Total Number of Channels.

A review was conducted to determine if channels A, B, or D had been inoperable during the time from April 25 to July 17, 1985. Results of the review indicated that channels A, B, and D had been maintained operable during that period. However, during the performance of the required monthly Plant Protection System functional test

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procedure, the containment wide-range pressure channels are bypassed (1 hour/channel) during trip/alarm setpoint verification for the containment spray ESFAS initiation setpoint. Therefore, Action Statement 14 requires one of the inoperable channels to be placed in bypass and the other inoperable channel to be placed in the tripped condition within one hour, if the number of channels OPERABLE is one less than the Minimum Channels OPERABLE.

As corrective action, calibration procedures will be revised to better define equipment restoration requirements by providing specific steps for verifying (including independent verification) instrument valve positions in lieu of less specific steps such as "return the transmitter to service." Procedure revisions and corresponding retraining will be completed prior to the next performance date of each of the procedures, with all procedures revised by October 15, 1985.

During the time period the channel "C" containment wide-range pressure transmitter isolation valve was closed, a potential impact on the safe operation of the plant existed, however, no conditions existed that would have required a containment spray actuation. Technical Specification L.C.O. 3.3.2 for containment hi-hi (wide-range) pressure/containment spray requires 2 channels to trip. Two out of the four channels were continuously available for ESFAS actuation.



## Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85372-2034

ANPP-33230-EEVB/GEC

August 16, 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-41  
Licensee Event Report - Isolation of Plant Protection Channel  
File: 85-056-026; G.1.01.10

Dear Sirs:

Attached please find Licensee Event Report (LER) No. 85-050-00 prepared and submitted pursuant to 10 CFR 50.73. This LER addresses the isolation of a Plant Protection Channel. 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. / JH*

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

EEVB/GEC/slh  
Attachments

cc: J. B. Martin (all w/a)  
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E. A. Licitra  
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INPO Records Center

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