

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Palo Verde Unit 1** DOCKET NUMBER (2) **050000528** PAGE (3) **1 OF 03**

TITLE (4) **Intentional Isolation of Containment Spray 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)
08	03	85	85	056	010	03	18	86		050000

OPERATING MODE (9) **4**

POWER LEVEL (10) **0.010**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

<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"/> 20.40b(a)(1)(i)	<input type="checkbox"/> 50.48(a)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(a)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 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)(viii)(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)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **William F. Quinn, Manager - Nuclear Licensing (Extension 4087)** TELEPHONE NUMBER **6029431-7200**

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NFRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NFRDS
X	JE	HSM	502	Y					

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)

This is a supplement to LER 85-056-00.

On August 2, 1985, Palo Verde Unit 1 was in Mode 4 with the reactor coolant system (AB) at approximately 335 psia and 250°F when 2 spurious actuations by the containment spray actuation logic (JE) occurred. Licensed operators reviewed the situation and conditions in the reactor coolant system and core, and verified no valid condition existed which required a containment spray system (BE) actuation.

Upon consideration of overall plant status, the operators determined it would be prudent to prevent an inadvertent actuation of the containment spray system and isolated both trains of the system, a condition prohibited by the Technical Specifications. This placed the unit in compliance with Specification 3.0.3 at 0010 on August 3, 1985.

The cause of the signals was identified as a main control board manual initiation switch, which apparently had corroded contacts. The switch was cycled to remove any buildup and the system was monitored to assure that the system was returned to operability. The system was inoperable a total of six hours and four minutes, after which time the isolation valves were reopened and the system returned to service. The switch was subsequently replaced.

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FACILITY NAME (1) Palo Verde Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 5 2 1 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

This is a supplement to LER 85-056-00.

On August 2, 1985, Palo Verde Unit 1 was in Mode 4 with the Reactor Coolant System (AB) at approximately 335 psia and 250°F. The unit entered Mode 4 at 2058.

At 2328, and again at 2343, the plant experienced partial trips of the Containment Spray Actuation System (JE). These partial trips were on the "A" and "B" train portion of the system, with the "1-3" leg of the actuation logic relays indicating the trip. No evidence of valid containment high pressure signals existed which would have required a containment spray (BE) actuation. The licensed operators requested that maintenance personnel investigate the incident in an attempt to determine the cause of the partial trip of the actuation system. The technicians who investigated the situation were not immediately able to determine the cause of the signals. At that time, the operators considered the significant potential effect that an inadvertent system actuation could have on the plant, the relatively small amount of decay heat present in the core due to the low burnup of the initial nuclear fuel, and the status of the primary system pressure and temperature, and decided to voluntarily enter the provisions of Technical Specification 3.0.3. At 0010 on August 3, 1985, the Containment Spray System discharge header isolation valves (1-SI-UV-671 and 672) were isolated to remove the possibility of an inadvertent containment spray actuation. Isolation of these valves placed both trains of the Containment Spray System into an inoperable condition. Both trains required isolation because the actuation logic which was experiencing the spurious trips would cause actuation of both trains of the Containment Spray System.

In parallel with the actions taken to prevent inadvertent actuation, the control room contacted the responsible engineering personnel to request their assistance in diagnosis and correction of the problem. The engineering staff determined that a potential source of the problem was the "A" train manual initiation switch for the Containment Spray Actuation System located on the main control board. The engineers requested the switch be cycled to remove possible corrosion from the contacts of the switch. The control room operators cycled the switch six times. After each cycle, the logic was reset satisfactorily. The system was then monitored for approximately four hours, during which no further trips were experienced. At 0614, the isolation valves were reopened and the system was returned to operable status having been out of service a total of six hours and four minutes.

Throughout this event, the Reactor Coolant System was maintained at approximately 335 psia and 250°F.

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

Following the event termination, a work request was generated to replace the switch which was responsible for the spurious signals. This work was completed by August 6, 1985.

This event had little effect on the safe operation of the plant. As described above, the reactor coolant system was maintained with a relatively low specific energy in the system coolant. Also, due to the low burnup of the reactor fuel, the decay heat load present in the system was only a fraction of what is normally found following power operations. Analysis indicated that the existing decay heat would not provide adequate energy to damage the fuel integrity in the event of a design basis accident. These factors combined with the negative effects of an inadvertent actuation of the spray system, and subsequent degradation of the containment environment, justified the decision to enter Specification 3.0.3.

The NRC Operations Center and Senior Resident Inspector were notified of this event at 1730 and 1830 respectively, August 3, 1985.

There are no similar events.



Arizona Nuclear Power Project

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March 18, 1986
ANPP-35576-EEVB/JBK/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 - 85-056-01
File: 86-020-404

Dear Sirs:

Attached please find Supplement Number 01 to Licensee Event Report (LER) No. 85-056-00 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/JBK/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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