NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Palo Verde Unit 2	0 5 0 0 0 5 2 9	1 OF 0 3

TITLE (4)

Inadvertent Operation with Inoperable SG Snubbers Due to Personnel Error

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)
									N/A	0 5 0 0 0
0 3	1 0	8 6	8 6	— 0 2 4	— 0 0				N/A	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)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	0 0 0	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)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		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	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)

On May 14, 1986, at 1000, with Unit 2 in Mode 4 (HOT SHUTDOWN), it was determined that several steam generator (SG) snubbers were inoperable. The SG snubbers were inoperable since a required visual examination had not been performed following the replacement of various SG snubber load pins with load cells. This resulted in the Unit inadvertently operating in Modes that require the SG snubbers operable from March 10, 1986, until April 30, 1986.

With Unit 2 in Mode 4, the visual exam was completed at 1247 on May 14, 1986, restoring SG snubber operability within the time restraints of the Technical Specification Action Statement. No discrepancies were noted.

The root cause of this event was a personnel error by an operator (utility licensed) and a personnel error by a work group supervisor (utility non-licensed). To prevent recurrence, this event will be reviewed with all licensed operators and work group supervisors.

There have been no similar events.

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

On May 14, 1986, a work order was being reviewed by an outage management engineer for closeout. This work order had replaced load pins in several steam generator (SG) snubbers (SNB) with load cells (LDC) to support performance of plant piping dynamic transient testing. Replacement of the load pins with load cells rendered the snubbers inoperable; however, the SG snubbers were not required to be operable in Mode 5 (COLD SHUTDOWN) when the work was performed (work complete February 21, 1986). The work order required the performance of a retest consisting of a snubber visual examination surveillance test (ST) to restore snubber operability. The work order review identified that this visual exam had not been performed.

On May 14, 1986, at 1000, with Unit 2 in Mode 4 (HOT SHUTDOWN), the Operations department was informed that the associated SG snubbers were inoperable. Since the SG snubbers are required to be operable in this Mode (Unit 2 had entered Mode 4 from Mode 5 on May 14, 1986, at 0333), immediate corrective action was initiated to perform the snubber visual examination. With Unit 2 remaining i Mode 4, this inspection was completed with no discrepancies on May 14, 1986, at 1247, restoring SG snubber operability within the time restraints of the Technical Specification (T.S.) Action Statement.

A further review of plant operating history determined that the Unit had inadvertently operated in Modes requiring the SG snubbers to be operable from 1100 on March 10, 1986 (Mode 4 entry from Mode 5), until 0627 on April 16, 1986 (Mode 5 entry from Mode 4), and from 1732 on April 16, 1986 (Mode 4 entry from Mode 5) until 1642 on April 30, 1986 (Mode 5 entry from Mode 4).

An investigation into the cause of this event was performed. The work order contained a step requiring notification of the snubber program engineer when the load cell installation was complete, at which time the visual exam would be conducted. Although the work order indicates that this step was performed on February 21, 1986, the visual exam was not initiated. The work order cover sheet had also referenced an incorrect T.S. section, Mode restriction, and ST number (required for the retest). These were essentially typographical errors. The work order did indicate that the work was T.S. related, did impact Mode changes, and a retest ST was required. The work order package also contained a T.S. impact analysis which clearly indicated that the work impacted Mode 4 operation.

Although the visual exam was not initiated by the snubber program engineer, and typographical errors existed on the work order cover sheet, neither of these contributing factors would have resulted in this event had the work order been identified as a Mode 4 restraint or had the operations department been notified of the delay in closing out the work order.

Therefore, this event has two root causes: personnel error by the work group supervisor (utility non-licensed) since the operations department was not notified of the delay in the completion of the retest portion of the work order, and a personnel error by the operator (utility licensed) who initially approved the work order for performance, since administrative controls were not established which would have required the work order to be completed before entering Mode 4. These actions were contrary to approved procedures which defined the actions and responsibilities of station personnel for completion of work and closeout of work documents. There were no unusual characteristics of the work location that directly contributed to these errors.

As corrective action to prevent recurrence, this event will be reviewed with all licensed operators to emphasize the importance and consequences of a thorough review of work orders for operational impact. The event will also be reviewed with all work group supervisors to emphasize the importance and consequences of informing the operations department of delays in closing out work orders with Mode change impact.

There are no safety consequences or implications associated with this event. The subsequent performance of the snubber visual inspection confirmed that the load cells had been properly installed. Therefore, the associated snubbers were functionally operable during all subsequent plant operation.

There were no automatically or manually initiated safety system responses associated with this event. There were no other inoperable structures, systems or components at the start of this event that contributed to the event. There have been no similar events.

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

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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 2
Docket No. STN 50- 529 (License NPF-51)
Licensee Event Report - 86-024-00
File: 86-020-404

Dear Sirs:

Attached please find Licensee Event Report (LER) No. 86-024-00 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 me

Very truly yours,

E E Van Brunt Jr/JH

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

EEVB/PGN/rw
Attachment

cc: J. B. Martin (all w/a)
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