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FACIL:STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
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SUBJECT: LER 88-002-00:on 880109,ASME surveillance interval exceeded for containment isolation valve.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 W/8 ltr. SIZE: 6
TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:Standardized plant. 05000530

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD5 LA	1	1	PD5 PD	1	1
	LICITRA,E	1	1	DAVIS,M	1	1
INTERNAL:	ACRS MICHELSON	1	1	ACRS MOELLER	2	2
	AEOD/DOA	1	1	AEOD/DSP/NAS	1	1
	AEOD/DSP/ROAB	2	2	AEOD/DSP/TPAB	1	1
	ARM/DCTS/DAB	1	1	DEDRO	1	1
	NRR/DEST/ADS 7E	1	0	NRR/DEST/CEB 8H	1	1
	NRR/DEST/ESB 8D	1	1	NRR/DEST/ICSB 7	1	1
	NRR/DEST/MEB 9H	1	1	NRR/DEST/MTB 9H	1	1
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	NRR/DEST/SGB 8D	1	1	NRR/DLPQ/HFB 10	1	1
	NRR/DLPQ/QAB 10	1	1	NRR/DOEA/EAB 11	1	1
	NRR/DREP/RAB 10	1	1	NRR/DREP/RPB 10	2	2
	NRR/DRIS/SIB 9A	1	1	NRR/PMAS/ILRB12	1	1
	REG FILE 02	1	1	RES TELFORD,J	1	1
	RES/DE/EIB	1	1	RES/DRPS DIR	1	1
	RGN5 FILE 01	1	1			
EXTERNAL:	EG&G GROH,M	4	4	FORD BLDG HOY,A	1	1
	H ST LOBBY WARD	1	1	LPDR	1	1
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RIDS/ADDS RIDS/ADDS

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 3	0 5 0 0 0 5 3 0	1 OF 0 6

TITLE (4)
ASME Surveillance Interval Exceeded For Containment Isolation Valve

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 1	0 9	8 8	8 8	— 0 0 2	— 0 0	0 4	2 1	8 8	N/A	0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		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
	AREA CODE
Timothy D. Shriver, Compliance Manager	6 0 2 — 3 9 3 - 2 5 2 1

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 March 24, 1988 Palo Verde Unit 3 was in Mode 1 (POWER OPERATION) at 100 percent power when it was discovered that surveillance testing had not been conducted within the allowable time interval for a containment isolation valve from the containment radwaste sump (WK).

On December 1, 1987 surveillance testing had been conducted on the valve in accordance with Technical Specification 4.0.5 which requires testing in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. The valve met the required acceptance criteria; however, the measured stroke time increased by more than 50% from the previous test. The valve is required to be tested once per 3 months; however, when stroke times increase by 50% or more relative to the previous test, ASME Section XI requires the testing frequency to be adjusted to a monthly interval. The testing schedule was not modified to meet the monthly surveillance interval for the valve. On January 9, 1988 the modified surveillance interval was exceeded.

The root cause of the event was evaluated to be a cognitive personnel error by a technician (utility, non-licensed) responsible for tracking the completed tests. To prevent recurrence the individual will receive appropriate counseling and/or disciplinary action.

A previous similar event occurred as described in LER 1-87-002-00.

IE22

1/1

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

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

I. DESCRIPTION OF WHAT OCCURRED:

A. Initial Conditions:

At the time of event discovery on March 24, 1988, Palo Verde Unit 3 was in Mode 1 (POWER OPERATION) at approximately 100 percent power. For the duration of the event described below, Unit 3 operated in Mode 1 at essentially 100% power.

B. Reportable Event Description (Including Dates and Approximate Times of Major Occurrences):

Event Classification: Condition Prohibited by the Plants Technical Specifications

On March 24, 1988, Palo Verde Unit 3 was in Mode 1 (POWER OPERATION) at approximately 100 percent power when it was discovered that surveillance testing on valve (ISV) RDA-UV-023 was not conducted within the time interval required by Technical Specification 4.0.5 during the period described below. Surveillance testing on RDA-UV-023 was required to have been conducted monthly after December 1, 1987. The testing schedule was not adjusted to meet the monthly surveillance requirements and on January 9, 1988 the surveillance interval for RDA-UV-023 was exceeded. The valve was subsequently, satisfactorily tested on February 19, 1988 and March 19, 1988. The event was discovered by an individual (utility, non-licensed) during the process of reviewing and updating the ASME surveillance test data files.

Based upon valve RDA-UV-023 not being surveillance tested as required by ASME Section XI requirements, the valve was administratively inoperable from January 9, 1988 to February 19, 1988 (approximately 41 days). Therefore, Palo Verde Unit 3 operated in a condition prohibited by Technical Specification 3.6.3 during this period since the appropriate ACTION requirements were not met during the period of valve inoperability.

Pursuant to Technical Specifications 3.6.3 and 4.0.5, containment isolation valves are required to be OPERABLE and are to be surveillance tested in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. Specification 4.0.5 requires testing in accordance with ASME Section XI testing requirements. Containment isolation valve (ISV) RDA-UV-023 from the containment sump (WK) pump (P) to the Liquid Radwaste System (WD) holdup tank (TK) is required to be surveillance tested once per three months in accordance with

Code testing intervals. If the valve's stroke time increases by 50 percent or more relative to the previous test, the surveillance testing is required by the Code to be conducted monthly. Per Technical Specification 3.6.3, the maximum actuation time for RDA-UV-023 is thirty (30) seconds. The valve has a history of actuating in approximately eighteen (18) seconds.

Prior to the event, on October 9, 1987 RDA-UV-023 was surveillance tested in accordance with approved procedures during which the valve's stroke time was erroneously recorded as being 0.52 seconds. During the subsequent ASME technical review of this test, this stroke time was compared to the previous stroke time (18.53 seconds) by the responsible test engineer (utility, non-licensed) and it was concluded that the previous stroke time was in doubt. Based upon this conclusion, another verification surveillance test was not initiated for the valve nor investigative action initiated. During the next regularly scheduled surveillance test on December 1, 1987, valve RDA-UV-023 was stroked tested and the stroke time was recorded to be 18.91 seconds. Due to the stroke time increase from October 9, 1987 to December 1, 1987 being greater than 50 percent, the testing interval should have been reduced to once per month and the next test would have been required no later than January 9, 1988 (this includes the 25 percent tolerance allowed by Technical Specifications 4.0.5 and 4.0.2).

C. Status of structures, systems, or components that were inoperable at the start of the event that contributed to the event:

Other than RDA-UV-023, no inoperable structures, systems, or components contributed to the event.

D. Cause of each component or system failure, if known:

Not applicable - no failures were involved.

E. Failure mode, mechanism, and effect of each failed component, if known:

Not applicable - no failures were involved.

F. For failures of components with multiple functions, list of systems or secondary functions that were also affected:

Not applicable - no failures were involved.

G. For failure that rendered a train of a safety system inoperable, estimated elapsed time from the discovery of the failure until the train was returned to service:

Not applicable - no failures were involved.

H. Method of discovery of each component or system failure or procedural error:

Not applicable - no failures or procedural errors were involved. However, during a review of this event by engineering management (utility, non-licensed) it was determined that the procedures contributed to this event as discussed below.

I. Cause of event:

The cause of the event described herein was a cognitive personnel error on the part of an ASME Section XI technician (utility, non-licensed) responsible for reviewing and tracking ASME valve data. The responsible individual did not ensure that the valve was tested on a monthly interval as a result of the stroke time increasing by 50 percent or more as previously discussed. The error was contrary to approved procedural controls. The procedural controls are believed to provide sufficient guidance in this area.

As a contributory factor, the stroke time for valve RDA-UV-023 was documented as being 0.52 seconds on October 9, 1988. A review of the valve operating history and valve design has determined that it is not possible that the actual stroke time was 0.52 seconds. Therefore, it has been determined that a cognitive personnel error occurred in recording the actual stroke time by the individual (utility, licensed) responsible for the performance of the surveillance test. This error was contrary to approved procedural controls. The procedural controls utilized for the conduct of the surveillance test were reviewed by engineering management and determined to have contributed to this error. The procedures did not contain adequate guidance for the personnel conducting the test and the subsequent acceptance review of the test to enable them to adequately determine if the as-found condition is representative of the valve's actual performance characteristics.

An additional cognitive personnel error occurred which may have contributed to this event. This error occurred subsequent to the October 9, 1987 surveillance test on RDA-UV-023 during the performance of the ASME technical review by the responsible ASME test engineer (utility, non-licensed). As previously discussed, the stroke time was erroneously recorded on October 9, 1987; however, during the subsequent ASME technical review of this test, the responsible ASME test engineer erroneously concluded that the previous stroke time was in doubt and did not initiate further investigative action. It has also been determined that the procedural controls contributed to this error since representative stroke time values were not provided in the surveillance test.

There were no unusual characteristics of the work locations which contributed to the event and there were no other personnel errors which contributed to the event.

J. Safety System Response:

None

K. Failed Component Information:

Not applicable to this event.

II. ASSESSMENT OF THE SAFETY CONSEQUENCES AND IMPLICATIONS OF THIS EVENT:

There were no safety consequences or implications resulting from this event. The valve was administratively inoperable for the period of time described above due to the surveillance interval not being modified as required by ASME Section XI guidelines. A review of the surveillance test data indicates that the valve met applicable stroke time requirements prior to and after the period of administrative inoperability, therefore, it would have been capable of performing its intended safety function.

III. CORRECTIVE ACTIONS:

A. Immediate:

Appropriate actions were initiated to ensure that the valve was tested on a monthly basis as required by ASME Section XI testing requirements and ANPP administrative controls requirements.

B. Action to Prevent Recurrence:

The responsible ASME Section XI technician and engineer have received appropriate counseling and/or disciplinary action. The individual responsible for incorrectly recording the test data described herein has also received appropriate counseling.

The procedural controls are being revised as discussed below.

IV. PREVIOUS SIMILAR EVENTS:

A similar event occurred as reported in Unit 1 LER 1-87-015-00. ANPP has reviewed the circumstances surrounding the event described herein and in LER 1-87-015-00. Based upon this review, ANPP believes that cognitive personnel errors of the type described in these events are a result of temporary mental lapses and are not normally correctable with revised procedures or additional training. Therefore, the event described herein would not have been prevented by the corrective actions taken as a result of LER 1-87-015-00.

As discussed above, a contributory cause was identified in that the current procedural controls could be enhanced in order to minimize the probability of this type of event. ANPP had previously identified that the surveillance procedures are not "user-friendly" since they do not provide representative valve stroke time information. Under the current ASME technical review requirements that ANPP is committed to, it would not have been administratively practical to include representative stroke times for all ASME valves in their respective surveillance procedures. Recognizing this, ANPP submitted a relief request to allow tracking and review of valve stroke time information in a manner similar to that currently utilized for tracking ASME pump data. If approved, ANPP intends to revise surveillance procedures to include representative values for each valve based upon the results of this relief request. ANPP believes this will provide personnel additional information to determine that a problem exists with a particular valve on an expedited basis. However, additional corrective actions will be based upon the results of the relief request.

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

192-00369-JGH/TDS/DAJ
April 21, 1988

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

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 3
Docket No. STN 50-530 (License No. NPF-74)
Licensee Event Report 88-002-00
File: 88-020-404

Attached please find Licensee Event Report (LER) No. 88-002-00 prepared and submitted pursuant to 10CFR 50.73. In accordance with 10CFR 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. D. Shriver, Compliance Manager at (602) 393-2521.

Very truly yours,

J. G. Haynes
Vice President
Nuclear Production

JGH/TDS/DAJ/kj

Attachment

cc: O. M. DeMichele (all w/a)
E. E. Van Brunt, Jr.
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T. J. Polich
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A. C. Gehr
INPO Records Center

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