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 FACIL:STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
 AUTH.NAME AUTHOR AFFILIATION
 BRADISH,T.R. Arizona Public Service Co. (formerly Arizona Nuclear Power
 LEVINE,J.M. Arizona Public Service Co. (formerly Arizona Nuclear Power
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-011-01:on 891206,missed ASME surveillance test on
 generator air start sys check valve.

W/9 ltr.

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 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:Standardized plant.

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	NRR/DET/ESGB 8D	1 1	NRR/DLPQ/LHFB11	1 1
	NRR/DLPQ/LPEB10	1 1	NRR/DOEA/OEAB11	1 1
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	NRR/DST/SICB 7E	1 1	NRR/DST/SPLB8D1	1 1
	NRR/DST/SRXB 8E	1 1	REG FILE 02	1 1
	RES/DSIR/EIB	1 1	RGN5 FILE 01	1 1
EXTERNAL:	EG&G WILLIAMS,S	4 4	L ST LOBBY WARD	1 1
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Arizona Public Service Company
PALO VERDE NUCLEAR GENERATING STATION
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

JAMES M. LEVINE
VICE PRESIDENT
NUCLEAR PRODUCTION

192-00637-JML/TRB/DAJ
March 14, 1990

U. S. Nuclear Regulatory Commission
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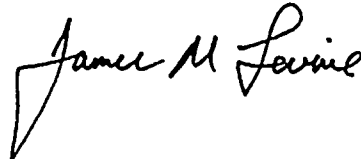
Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 3
Docket No. STN 50-530 (License No. NPF-74)
Licensee Event Report 89-011-01
File: 89-020-404

Attached please find Supplement Number 1 to Licensee Event Report (LER) No. 89-011-00 prepared and submitted pursuant to 10CFR50.73. This supplement is being provided to update the schedule for accomplishing corrective actions. The procedure revision discussed in the attached LER is being included with other changes being made to the procedures. In accordance with 10CFR50.73(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) 393-3531.

Very truly yours,



JML/TRB/DAJ/kj

Attachment

cc: W. F. Conway (all w/a)
E. E. Van Brunt
J. B. Martin
D. H. Coe
T. L. Chan
A. C. Gehr

INPO Records Center

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) **Palo Verde Unit 3** DOCKET NUMBER (2) **0 5 0 0 0 5 3 0 1** PAGE (3) **1 OF 0 6**

TITLE (4)

Missed ASME Surveillance Test on Generator Air Start System Check 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)									
1	2	0	6	8	9	8	9	0	1	1	0	1	0	3	1	4	9	0	N/A	0 5 0 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)																	
POWER LEVEL (10)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)																	
4			20.402(b)																	
0 0 0			20.405(a)(1)(i)																	
			20.405(a)(1)(ii)																	
			20.405(a)(1)(iii)																	
			20.405(a)(1)(iv)																	
			20.405(a)(1)(v)																	
			20.405(c)(1)																	
			20.405(c)(2)																	
			20.405(c)(2)(i)																	
			20.405(c)(2)(ii)																	
			20.405(c)(2)(iii)																	
			20.405(c)(2)(iv)																	
			20.405(c)(2)(v)																	
			20.405(c)(2)(vi)																	
			20.405(c)(2)(vii)																	
			20.405(c)(2)(viii)																	
			20.405(c)(2)(ix)																	
			20.405(c)(2)(x)																	

LICENSEE CONTACT FOR THIS LER (12)

NAME **Thomas R. Bradish, (Acting) Compliance Manager** TELEPHONE NUMBER **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 NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

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 approximately 1715 MST on December 6, 1989, Palo Verde Unit 3 was in Mode 4 when APS engineering personnel discovered that quarterly ASME surveillance testing had not been performed on a Train "A" air start system check valve for the Train "B" emergency diesel generator. The surveillance testing should have been performed when the Train "A" air start system compressor was returned to service on November 18, 1989. The surveillance testing is required pursuant to Technical Specification 4.0.5.

The cause of the event was insufficient procedural controls. As corrective action, the procedures are being revised.

There have been no previous similar events reported pursuant to 10CFR50.73.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1) Palo Verde Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 5 3 0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 9	— 0 1 1	— 0 1	0 2	OF	0 6

TEXT (If more space is required, use additional NRC Form 365A's) (17)

I. DESCRIPTION OF WHAT OCCURRED:

A. Initial Conditions:

At the time of event discovery on December 6, 1989, at approximately 1715 MST Palo Verde Unit 3 was in Mode 4 (HOT SHUTDOWN) at approximately 2250 pounds per square inch-absolute (psia) and 335 degrees Fahrenheit (F). As described in Section I.B, the Train "B" Emergency Diesel Generator (EK)(DG) was returned to service on November 18, 1989, at approximately 1050 MST without performing a required ASME Section XI surveillance test. On November 18, 1989, Palo Verde Unit 3 was in Mode 5 (COLD SHUTDOWN) during a refueling outage. Subsequently, Palo Verde Unit 3 entered Mode 4 at approximately 0507 MST on November 28, 1989; entered Mode 3 (HOT STANDBY) at approximately 1453 MST on November 29, 1989; re-entered Mode 4 at approximately 0446 MST on December 6, 1989; and re-entered Mode 3 at approximately 0546 MST on December 12, 1989.

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

Event Classification: Condition prohibited by the plant's Technical Specifications.

On December 6, 1989, at approximately 1715 MST, APS engineering personnel (utility, non-licensed) discovered that required ASME Section XI surveillance testing had not been performed on an ASME Code Class 3 check valve (Valve I.D. No. 3P-DGB-V497) in the Train "A" air start system (LC) for the Unit 3 Train "B" emergency diesel generator. The surveillance testing is required pursuant to Technical Specification 4.0.5.

Palo Verde Unit 3 has two, redundant emergency diesel generators. Each emergency diesel generator has two, redundant air start systems. Each air start system consists of an air compressor (CMP), air start receiver (TK), and associated piping and valves (V). The air compressors are not required for emergency diesel generator operability since an adequate air supply is stored in each air start receiver. Various valves in the air start system are required to be periodically surveillance tested in accordance with ASME Section XI requirements pursuant to Technical Specification 4.0.5.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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

Each air start train has an ASME Code Class 3 check valve (V) on the outlet of the air start receiver. The check valves (one in each train) are required to be tested at least once per quarter to ensure that they will not restrict air flow to the emergency diesel generator. Normal practice in accordance with approved surveillance procedures for verifying the operability of the diesel is to test the Train "B" check valve the first month of the quarter, the Train "A" check valve the second month of the quarter, and both check valves the third month of the quarter. Satisfactory testing is exhibited when the emergency diesel generator starts utilizing the appropriate air start train(s).

Prior to the event, on April 15, 1989, a "Caution" tag was placed on the Train "A" air start compressor for the Train "B" emergency diesel generator which stated that the compressor was to only be used in an emergency due to high vibration. At the time, Unit 3 was in Mode 6 (REFUELING). The Train "A" air start check valve had last been tested satisfactorily on February 8, 1989, and was due to be tested again in May 1989. However, in May 1989, the Train "A" air start compressor was still out of service; therefore, the air start check valve was not surveillance tested. Since the valve was not tested, the surveillance interval for the air start check valve elapsed and the valve became administratively inoperable on approximately June 3, 1989 (This includes the 25 percent extension allowed by Technical Specification 4.0.2). It was not identified that performance of the check valve surveillance testing was required when the air compressor was to be returned to service.

During the refueling outage, the Train "A" air start compressor was repaired and returned to service on November 18, 1989, at approximately 1050 MST; however, the ASME surveillance testing for the Train "A" air start check valve was not performed. Subsequently, the Train "B" air start compressor was removed from service for maintenance at approximately 1100 MST on November 18, 1989. Since the Train "A" air start system was now in service and the Train "B" compressor was out of service, operations personnel (utility, non-licensed) did not continue to verify (i.e., take log readings) adequate air start pressure in the Train "B" air start receiver. As a result, the Train "A" air start system was administratively inoperable and the Train "B" air start system was considered to be out of service. This rendered the Train "B" emergency diesel generator administratively inoperable.

The Train "B" emergency diesel generator remained administratively

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TEXT CONTINUATION

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

inoperable until December 3, 1989, at approximately 2000 MST when operations personnel (utility, non-licensed) began verifying that adequate air start pressure was available in the Train "B" air start receiver. During the time period that the Train "B" emergency diesel generator was administratively inoperable, the following conditions prohibited by the Technical Specifications occurred: Mode 4 was entered on November 28, 1989, at approximately 0507 MST contrary to the requirements of Technical Specifications 3.0.4 and 4.0.4; Mode 3 was entered on November 29, 1989, at approximately 1453 MST contrary to the requirements of Technical Specification 3.0.4 and 4.0.4; and while in Modes 3 and 4, the appropriate ACTION requirements of Specification 3.8.1.1 for one inoperable emergency diesel generator were not met.

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

Except for the Unit 3 Train "B" emergency diesel generator and its associated air start system components being inoperable as described in Section I.B, no other structures, systems, or components were inoperable at the start of the event which contributed to the event.

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

Not applicable - no component or system failures were involved.

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

Not applicable - no component failures were involved.

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

Not applicable - no component failures were involved.

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

Not applicable - no failures were involved.

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

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

Not applicable - there were no component or system failures or procedural errors.

- I. Cause of Event:

An independent investigation of the event was conducted in accordance with the APS Incident Investigation Program. Based upon the results of this investigation, the cause of this event has been determined to be inadequate procedural guidance (SALP cause classification - procedural problems). The Train "B" emergency diesel generator air start check valves are tested in accordance with surveillance test procedure 43ST-3DG02, "Diesel Generator B Test 4.8.1.1.2.a." This surveillance test procedure is primarily intended to provide administrative controls for the performance of monthly Train "B" emergency diesel generator surveillance testing. A secondary function of the procedure is to provide for quarterly testing of various ASME air start system valves since they are tested concurrent with the emergency diesel generator operability run. However, it is not readily apparent to a user of the procedure that non-performance of certain sections of the procedure results in non-performance of required ASME surveillance testing.

The event was not the result of an individual not adequately following an approved procedure or the result of an activity or task not being covered by an approved procedure. There were no unusual characteristics of the work location which contributed to the event.

- J. Safety System Response:

Not applicable - there were no safety system responses and none were necessary.

- K. Failed Component Information:

Not applicable - no component failures were involved.

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

There was no safety consequences or implications resulting from this event. The Train 'A' air start check valve was capable of performing

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its design function during the time the Train 'B' air compressor was out of service as evidenced by the successful performance of the Section XI Surveillance Test on December 7, 1989. In addition, the Train 'A' air receivers were capable of supplying the necessary starting air to the diesel generator when the Train 'B' air compressor was out of service. Therefore, there was at least one starting air train fully functional and capable of starting the diesel generator during this event.

III. CORRECTIVE ACTIONS:

A. Immediate

As immediate corrective action, the Train "A" air start system check valve was satisfactorily surveillance tested on December 7, 1989, at approximately 0605 MST.

B. Action to Prevent Recurrence:

As corrective action to prevent recurrence, the procedure utilized in Units 1, 2, and 3 to verify operability of the ASME components will be revised to provide procedural guidance on applicability of testing requirements. These procedure revisions are scheduled to be completed by April 30, 1990.

IV. PREVIOUS SIMILAR EVENTS:

There have been no previous similar events reported pursuant to 10CFR50.73. Previous reports have been submitted which concern missed surveillance tests; however, none of the previous events have involved missed ASME surveillance testing resulting from the cause described in Section I.I.