

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8804060158 DOC.DATE: 88/03/30 NOTARIZED: NO DOCKET #
 FACIL:STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528
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SUBJECT: LER 88-004-00:on 880229,Mode 4 entered w/both HPSI pumps
 inoperable.

W/8 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:Standardized plant.

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RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR 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/ICSB7A	1 1
NRR/DEST/MEB 9H	1 1	NRR/DEST/MTB 9H	1 1
NRR/DEST/PSB 8D	1 1	NRR/DEST/RSB 8E	1 1
NRR/DEST/SGB 8D	1 1	NRR/DLPQ/HFB10D	1 1
NRR/DLPQ/QAB10A	1 1	NRR/DOEA/EAB11E	1 1
NRR/DREP/RAB10A	1 1	NRR/DREP/RPB10A	2 2
NRR/DRIS/SIB9A1	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
NRC PDR	1 1	NSIC HARRIS,J	1 1
NSIC MAYS,G	1 1		
NOTES:	1 1		

TOTAL NUMBER OF COPIES REQUIRED: LTTR 47 ENCL 46

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Palo Verde Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 5 2 8										PAGE (3) 1 OF 0 4																		
TITLE (4) Mode 4 Entry With Both HPSI Pumps Inoperable																																						
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 N/A						DOCKET NUMBER(S) 0 5 0 0 0					
0 2			2 9			8 8			8 8			0 0 4			0 0			0 3			3 0			8 8			N/A						0 5 0 0 0					
OPERATING MODE (9) 4						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																																
POWER LEVEL (10) 0 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)						50.73(a)(2)(ii)						50.73(a)(2)(viii)(A)																				
						20.405(a)(1)(iv)						50.73(a)(2)(iii)						50.73(a)(2)(viii)(B)																				
20.405(a)(1)(v)						50.73(a)(2)(iv)						50.73(a)(2)(ix)																										
LICENSEE CONTACT FOR THIS LER (12)																																						
NAME Timothy D. Shriver, 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)																EXPECTED SUBMISSION DATE (15)						MONTH		DAY		YEAR												
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)																<input checked="" type="checkbox"/> NO																						

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

At 1755 MST on February 29, 1988, Palo Verde Unit 1 was in Mode 4 (HOT SHUTDOWN) at approximately 281°F and 396 psia when it was identified that Mode 4 was entered at 1635 MST on February 29, 1988, with the High Pressure Safety Injection (HPSI)(BQ) Pumps (P) inoperable. This was contrary to Technical Specification 3.0.4.

The HPSI pumps were placed in an inoperable status in accordance with approved procedure 410P-1ZZ10 (Hot Standby to Cold Shutdown Mode 3 to Mode 5) during a planned reactor shutdown. Approved procedure 410P-1ZZ01 (Cold Shutdown to Hot Standby Mode 5 to Mode 3) was used during restart to enter Mode 4. The unit was in Mode 4 when it was identified that both HPSI pumps were inoperable.

The root cause was a procedural inadequacy in that 410P-1ZZ01 did not ensure that equipment was returned to an operable status prior to entering Mode 4.

To prevent recurrence 410P-1ZZ01 has been revised to include steps to ensure that the HPSI pumps are procedurally required to be returned to service prior to entering Mode 4.

There have not been any previous similar events reported.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Palo Verde Unit 1	0 5 0 0 0 5 2 8 8 8	—	0 0 4	— 0 0	0 2	OF	0 4

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

At approximately 1755 MST on February 29, 1988, Palo Verde Unit 1 was in Mode 4 (HOT SHUTDOWN) at approximately 281°F and 396 psia when it was identified that Mode 4 entry had been made at approximately 1635 MST on February 29, 1988, with the High Pressure Safety Injection (HPSI) (BQ) pumps (P) inoperable. This was contrary to Technical Specification (T.S.) 3.0.4.

At approximately 1755 on February 29, 1988, the shift supervisor (utility, licensed) was conducting a routine Main Control Board (MCB) walkdown. During the walkdown he noted indications of a loss of control power (JC) for the HPSI pumps. As immediate corrective action the HPSI trains were declared inoperable and Limiting Condition for Operation (LCO) 3.5.3 Action (a) was entered. Subsequent investigation by control room personnel (utility, licensed and non-licensed) identified that the HPSI breaker (BKR) UC control power fuses (FU) had been removed. The fuses were replaced and the HPSI pumps were declared operable exiting the LCO at approximately 1800 MST on February 29, 1988. The event duration was approximately five (5) minutes.

An investigation into the root cause of the event identified that the fuses had been removed to satisfy a procedure step in (General Operating Procedure (GOP) 410P-1ZZ10 ("Hot Standby to Cold Shutdown Mode 3 to Mode 5") during a planned reactor shutdown. The fuses were removed on February 20, 1988, to prevent an inadvertent HPSI actuation during the reactor shutdown and while in Mode 5. The subsequent reactor startup was being conducted on February 29, 1988, in accordance with approved procedural controls GOP 410P-1ZZ01 ("Cold Shutdown to Hot Standby Mode 5 to Mode 4") when entry into Mode 4 was made with the HPSI pumps in an inoperable status. A review of the procedures found that placing the HPSI pump breakers in an inoperable status was specifically addressed in 410P-1ZZ10 however restoration was not required by 410P-1ZZ01. An expanded procedure review which included 410P-1ZZ11 "Mode Change Checklists" identified that the HPSI pumps were required to be demonstrated operable in accordance with the applicable surveillance requirements. However, this requirement is designed only to verify the surveillance tests were conducted within the specified periodicity. An evaluation of the operators' actions prior to and during the event concluded that they adhered to the existing procedural controls. Based upon the results of the investigation it was concluded that the root cause of the event was an error in an approved procedure.

During the course of the investigation three contributory causes were identified. The first involves the error discussed above in 410P-1ZZ01. The error had been previously identified and a procedure feedback form was submitted for evaluation and initiation of the appropriate revisions. The request was inappropriately evaluated as not requiring expedited review/processing and was subsequently processed with other routine requests.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Palo Verde Unit 1	0500052888	—	004	—00	03	OF	04

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

The second contributory cause involves the Technical Specification Component Condition Records (TSCCR) program. TSCCR's are utilized as an aid to control room personnel in determining equipment status. The program did not provide sufficient guidance to ensure its consistent application. That is, there were no specific procedural controls established to ensure that TSCCR's were consistently utilized where necessary. The third contributory cause involves control room personnel (utility, licensed) awareness of inoperable safety equipment as stated by the Safety Equipment Status System (SESS). SESS panel and control board (MCBD) indications are required to be reviewed during shift turnover. Prior to this event, control room personnel completed the shift turnover and reviewed the SESS panel and control board to determine equipment status. However, control room personnel did not maintain an adequate awareness of the status of the SESS equipment prior to changing modes.

As corrective action, the following actions are being taken for Units 1, 2, and 3:

- a) A procedure change has been implemented for 410P-1ZZ01 which specifically requires restoration of the HPSI pumps prior to Mode 4 entry.
- b) Procedures 410P-1ZZ01 and 410P-1ZZ10 have been reviewed to identify and correct other omissions.
- c) Procedural controls for the issuance and control of TSCCR's are being developed. As an interim measure, a night order was issued requiring the preparation of a TSCCR anytime equipment has been rendered inoperable for present or future modes.
- d) A formal system for prioritizing procedure feedback forms is being established. A prototype for this system was utilized in conducting the activities described in "e" below.
- e) A review of open procedure feedback forms was conducted to ensure each was properly prioritized.
- f) Procedural controls are being developed and implemented to prescribe the control and use of the procedure feedback forms. As an interim measure, a supervisory review will be required on the procedure feedback forms to verify validity and proper prioritization.
- g) Procedural controls are being established to ensure that control room personnel verify the status of safety equipment monitored by SESS prior to a Mode change.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104
EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Palo Verde Unit 1	0 5 0 0 0 5 2 8 8 8	—	0 0 4	— 0 0	0 4	OF	0 4

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

An evaluation to determine the safety significance of this event was conducted. It was concluded that there was little safety significance associated with this event under the existing conditions. That is, in a subcritical mode, without core heat generation, and the availability of both the Low Pressure Safety Injection (LPSI) (BP) and the charging (CB) systems.

There were no structures systems or components inoperable at the start of this event, other than those discussed above, that contributed to the event. As discussed, this event was a direct result of an error in an approved procedure. There were no unusual characteristics of the work location that contributed to the event. There were no automatic or manually initiated safety system responses.

A Special Plant Event Evaluation Report (SPEER) addressing this event is in the final review/approval cycle. Any additional information pertinent to the event or any revisions to the information provided in this report identified in the SPEER will be provided in a supplement to this report.

There have been no previous similar events reported where a mode change had been made contrary to T.S. 3.0.4 as a direct result of an error in an approved procedure.



Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

192-00357-JGH/TDS/JEM
March 30, 1988

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

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1
Docket No. STN 50-528 (License No. NPF-41)
Licensee Event Report 88-004-00
File: 88-020-404

Attached please find Licensee Event Report (LER) No. 88-004-00 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
J. G. Haynes
Vice President
Nuclear Production

JGH/TDS/JEM/kj

Attachment

cc: O. M. DeMichele (all w/a)
E. E. Van Brunt, Jr.
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11