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ACCESSION NBR:8804210311 DOC.DATE: 88/04/18 NOTARIZED: NO DOCKET #
FACIL:STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528
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SUBJECT: Corrected LER 88-002-00:on 880228,nonconservative setpoints on HI log power trip.

W/8 ltr.

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

NOTES:Standardized plant. 05000528

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NOTES: 1 1

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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 1	0 5 0 0 0 5 2 8	1 OF 0 4

TITLE (4)
Nonconserative Setpoints On The HI Log Power Trip

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

OPERATING MODE (9)	3
POWER LEVEL (10)	0 0 0

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

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)

X YES (If yes, complete EXPECTED SUBMISSION DATE) ☐ NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	0 5	1 8	8 8

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

On March 17, 1988, at approximately 1110 MST Palo Verde Unit 1 was in Mode 1 (POWER OPERATION) at approximately 100 percent power when engineering personnel (utility, non-licensed) informed the Unit 1 Shift Supervisor (utility, licensed) that the HI Log Power Trips (JC) may have been set contrary to the allowable values in the Technical Specifications, Table 2.2.-1.

On January 22, 1988, Unit 1 was in Mode 3 (HOT STANDBY) when the reactor trip switchgear (AA) were closed. Technical Specification 3.3.1, Table 3.3-1 requires the HI Log Trip setpoint to be OPERABLE in Mode 3 with the reactor trip switchgear closed. Preliminary calculations indicate the Hi Log trip setpoints may have been set contrary to the allowable setpoint.

The cause of the setpoints being set contrary to the PVNGS Technical Specifications allowable values is still under investigation. A supplement to this report will be issued describing the causes and necessary corrective actions to prevent recurrence.

The trip setpoints have been conservatively reset.

IE22
1/1

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 2	— 0 0	0 2 OF 0 4

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

I. DESCRIPTION OF WHAT OCCURRED:

A. Initial Conditions

On March 17, 1988 at approximately 1110 MST Palo Verde Unit 1 was in Mode 1 (POWER OPERATIONS)(at normal operating temperature and pressure) following completion of the Unit's first refueling outage.

B. Reportable Event Description (Including Date and Appropriate Times of Major Occurrences)

Event Classification: Operation of Unit 1 with the log power trip setpoints may have been set contrary to the requirements of PVNGS Technical Specifications (T.S.).

On March 17, 1988, at approximately 1110 MST engineering personnel (utility, non-licensed) informed the Unit 1 Shift Supervisor (utility, licensed) that the HI Log Power Trips (JC) may have been set contrary to the values specified in PVNGS T.S. Table 2.2-1. This determination was based upon preliminary calculations conducted by the engineer. At this time, Unit 1 management (utility, licensed) discussed the preliminary engineering evaluation with the responsible engineer and conservatively assumed that the trip setpoints (JC) had been set contrary to the T.S. and preparations were begun to begin a reactor shutdown in accordance with T.S. 3.0.3. Further evaluation determined that when the reactor is above 1E-04 percent power, the effected trips can be bypassed in accordance with T.S. 3.3.1. However, the decision was made to conservatively reset the trip setpoints and the preparations for the reactor shutdown were terminated.

On March 16, 1988, engineering personnel (utility, non-licensed) obtained voltage readings on the log and linear power channels (JC) from the Plant Protection System (PPS)(JC) cabinets. On March 17, 1988 the voltage readings were calculated to determine the variance between the log and linear power channels. The linear power instrumentation had been periodically calibrated by a secondary calorimetric which confirmed the log power channels were indicating a lower power level than actually existed. Based upon the indications available at 100 percent power it was assumed that the trip setpoints may not have actuated at the values specified in T.S. Table 2.2-1. An Engineering Evaluation Request (EER) has been initiated to determine the actual settings of the trip setpoints in relationship to the variance identified in the Log Power indications.

T.S. 2.2.1 and 3.3.1, the Hi Log Power level trip (JC) is required to be OPERABLE in Mode 1, 2, 3*, 4*, 5*. (*With the protective system trip breakers in the closed position, the CEA drive system capable of CEA withdrawal, and fuel in the reactor vessel.) On January 22, 1988, Unit 1 was in Mode 3 (HOT STANDBY) following the completion of

the first refueling when the reactor trip switchgear breakers (AA) were closed.

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

There were no other structures, systems, or components inoperable at the start of the event which contributed to the event other than those discussed in section I.B of this report.

D. Cause of each component or system failure:

Preliminary evaluations indicate that the cause of this event was inadequate programmatic controls to ensure that the excore detectors were conservatively set during the initial startup following a refueling outage. However, a Special Event Evaluation Report (SPEER) is currently being conducted to identify the root cause and any necessary corrective actions.

E. Failure Mode mechanism and effect of each failed component:

Not applicable. There were no component failures associated with this event.

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

Not applicable.

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

On March 17, 1988 the HI Log Power Trips were declared inoperable at approximately 1117 MST and were returned to service at approximately 1204 MST. The estimated elapsed time from discovery until the HI Log Power Trips were returned to service was approximately 47 minutes.

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

On March 16, 1988 the responsible engineer (utility, non-licensed) was notified of a variance between the log and linear power indications. The responsible engineer obtained the voltage readings from the log and linear power channels. On March 17, 1988 the engineer analyzed that data to determine the probable setpoint setting. Based upon the preliminary evaluations, the Hi Log Power Trip setpoints were conservatively assumed to be contrary to the allowable values in the T.S. Table 2.2-1 and actions were taken as described in section III of this report.

I. Cause of the Event:

As discussed in Section I.D of this report preliminary indications are that the root cause of this event was inadequate programmatic controls. However, a SPEER is being conducted to document the root cause evaluation and any necessary corrective actions.

J. Safety System Responses

There were no safety system responses and none were expected.

K. Failed Component Information:

Not applicable. There were no failed components associated with this event.

II. ASSESSMENT OF SAFETY CONSEQUENCES

At the time of the event identification there were no safety consequences because the effected trips were not required to be operational. An EER has been initiated to determine if there were any potential consequences at power levels less than 1E-04 percent.

III. CORRECTIVE ACTIONS:

A. Immediate:

Conservative setpoints were inserted in high log power trip. The effected surveillance test was revised and the appropriate test successfully conducted.

B. Actions to Prevent Recurrence:

Actions necessary to prevent recurrence will be identified in the SPEER.

IV. PREVIOUS SIMILAR EVENTS:

Other events have been reported under the requirements of 10CFR50.73 that involved inappropriate or misadjustments of setpoints. However, based upon the preliminary determination of the root cause there have been no similar events. Final determination will be made based upon the results of the SPEER.

V. ADDITIONAL INFORMATION:

The additional information required by 10CFR 50.73 and actions to prevent recurrence will be identified in a supplement to this report. The supplemental information will be based upon the results of the SPEER.

CORRECTED COPY
(Abstract, Item 11)

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

192-00366-JGH/TDS/DAJ
April 18, 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 88-002-00
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.
J. B. Martin
T. J. Polich
E. A. Licitra
A. C. Gehr
INPO Records Center

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