

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9109030007 DOC.DATE: 91/08/16 NOTARIZED: NO DOCKET #  
 FACIL:STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529  
 AUTH.NAME AUTHOR AFFILIATION  
 LEVINE,J.M. Arizona Public Service Co. (formerly Arizona Nuclear Power  
 RECIP.NAME RECIPIENT AFFILIATION  
 Document Control Branch (Document Control Desk)

SUBJECT: Special Rept 2-SR-91-001:on 910811 unusual event declared  
 due to identified leakage of RCS exceeding TS 3.4.5.2  
 limiting condition for operation.Caused by leakage from HX  
 seal injection drain valves.Seal injection isolated.

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NOTES:Standardized plant.

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EXTERNAL:	EG&G BRYCE,J.H	3 3	L ST LOBBY WARD	1 1
	NRC PDR	1 1	NSIC MURPHY,G.A	1 1
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NOTES: 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  
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192-00735-JML/TRB/KR  
August 16, 1991

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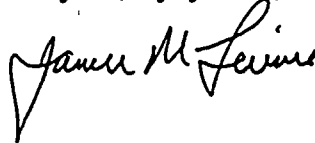
Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Unit 2  
Docket No. STN 50-529 (License No. NPF-51)  
Special Report 2-SR-91-001  
File: 91-020-404

Attached please find Special Report 2-SR-91-001 prepared and submitted pursuant to Emergency Plan Implementing Procedure (EPIP-03). This report discusses a condition requiring the NOTIFICATION OF UNUSUAL EVENT wherein the Technical Specification 3.4.5.2 Limiting Condition for Operation for reactor coolant system leakage limit of one (1) gallon per minute UNIDENTIFIED LEAKAGE was exceeded.

If you have any questions, please contact T. R. Bradish, Compliance Manager at (602) 393-2521.

Very truly yours,



JML/TRB/KR/nk

Attachment

cc: W. F. Conway (all with attachment)  
J. B. Martin  
D. H. Coe  
A. C. Gehr  
A. H. Gutterman

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Palo Verde Nuclear Generating Station Unit 2

Notification of Unusual Event

Docket No. 50-529

License No. NPF-51

Special Report No. 2-SR-91-001

This Special Report is being provided pursuant to Emergency Plan Implementing Procedure (EPIP)-03, "Notification of Unusual Event Implementing Actions" to report a condition requiring the declaration of a Notification of Unusual Event for Palo Verde Unit 2 from August 11, 1991 at 2330 MST to August 12, 1991 at 0230 MST.

On August 11, 1991, at approximately 2330 MST, Palo Verde Unit 2 was in Mode 3 (HOT STANDBY) when the Unit 2 Shift Supervisor declared a Notification of Unusual Event due to UNIDENTIFIED LEAKAGE exceeding the Technical Specification (TS) 3.4.5.2 Limiting Condition for Operation (LCO) for reactor coolant system leakage limit of one (1) gallon per minute (gpm). Emergency Plan Implementing Procedures require the declaration of a Notification of Unusual Event for exceeding TS leakage limits. TS 3.4.5.2 ACTION (b) requires a reduction in the leakage rate to within limits within four (4) hours or be in at least HOT STANDBY within the next six (6) hours and in COLD SHUTDOWN within the following thirty (30) hours. At approximately 2342 MST, Unit 2 personnel notified the appropriate state and local agencies. At approximately 0005 MST on August 12, 1991, the Nuclear Regulatory Commission (NRC) Operations Center was notified of the condition requiring the declaration of a Notification of Unusual Event (i.e., UNIDENTIFIED LEAKAGE exceeding TS leakage limit).

Prior to the declaration of a Notification of Unusual Event for the UNIDENTIFIED LEAKAGE, at approximately 1633 MST the reactor coolant system (RCS) water inventory balance procedure was initiated following completion of corrective maintenance on a leaking reactor coolant pump seal injection heat exchanger thermal relief valve. Prior to completion of the RCS water inventory balance procedure, Control Room personnel determined that the reactor coolant pump seal injection heat exchanger drain valves were not fully seated. The drain valves had been opened during the corrective maintenance on the thermal relief valve. The Control Room Shift Supervisor terminated the RCS water inventory balance procedure. However, subsequent to the termination of the RCS water inventory balance procedure, at approximately 1833 MST, a reactor operator reported that the RCS water inventory balance computer-generated computation calculated the UNIDENTIFIED LEAKAGE to be approximately 2.780 gpm.

Engineering and Unit 2 personnel investigated and verified that the reactor coolant system leakage was attributed to leakage from the reactor coolant pump seal injection heat exchanger drain valves. The leakage was directed to the non-Engineered Safety Feature sump located in the Auxiliary Building. At approximately 2134 MST, following a review of the RCS water inventory balance calculation, the Shift Supervisor determined that the leakage should be classified as UNIDENTIFIED LEAKAGE and entered TS 3.4.5.2 ACTION (b).



At approximately 2330 MST, a PVNGS management review determined that a Notification of Unusual Event should be declared because, although the source of the UNIDENTIFIED LEAKAGE was known to be from the drain valves, the amount of the leakage was not quantified.

At approximately 2350 MST, on August 11, 1991, Unit 2 personnel isolated the seal injection to the reactor coolant pumps prior to re-performing the RCS water inventory balance procedure. At approximately 0008 MST, on August 12, 1991, the second RCS water inventory balance procedure was initiated. At approximately 0230 MST, on August 12, 1991, following the performance of the RCS water inventory balance procedure, Control Room personnel verified that reactor coolant system UNIDENTIFIED LEAKAGE had been reduced to within limits (approximately 0.303 gpm) with the seal injection isolated and TS 3.4.5.2 ACTION (b) was exited. In addition, the condition requiring the declaration of a Notification of Unusual Event was terminated. Unit 2 had remained in the TS ACTION statement for approximately five (5) hours. At approximately 0252 MST, on August 12, 1991, seal injection to the reactor coolant pumps was restored.

Further investigation into the circumstances surrounding this event is being performed in accordance with the PVNGS Incident Investigation Program.

