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April 13, 1992
ND3MNO:3283

Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
LER 92-003-00

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

In accordance with Appendix A, Beaver Valley Technical Specifications, the following Licensee Event Report is submitted:

LER 92-003-00, 10 CFR 50.73.a.2.iv, "ESF Actuation - Feedwater Isolation due to Hi-Hi Level in the A Steam Generator".

Very truly yours,

T. P. Noonan
General Manager
Nuclear Operations

DSC/sl

Attachment

050003

IE22

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NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 4/30/92
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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Beaver Valley Power Station Unit 2	0 5 0 0 0 4 1 2	1 OF 0 3

TITLE (4)

ESF Actuation - Feeuwater Isolation due to Hi-Hi Level in the A Steam Generator

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 3	1 4	9 2	9 2	0 0 3	0 0	0 4	1 3	9 2		0 5 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)			
4		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 0		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)(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
T.P. Noonan, General Manager Nuclear Operations	4 1 2 6 4 3 - 1 2 5 8

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	
A	J B	X X X X	X X X X	Y							

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 3/14/92, the station was in Operation Mode 4 (Hot Shutdown), and in the process of cooling down to begin refueling operations. Steam generator levels were being maintained between 60 and 70 percent during a eight hour soak for chemistry control. Operators were in the process of placing the Residual Heat Removal (RHR) system in service. At 1613 hours, the A steam generator level reached its Hi-Hi level setpoint of 75 percent. This initiated a feedwater isolation (FWI) signal, causing the three feedwater containment isolation valves FWS*HYV157A, B and C to close. All other components that receive a FWI signal were already either removed from service or secured during the plant shutdown. This event was due to operators failing to control steam generator levels. Operators were concentrating on placing the RHR system in service and failed to properly monitor the steam generator levels. There were no safety implications due to this event. The FWI signal generated by the Hi-Hi steam generator level is described in Beaver Valley's UFSAR section 7.7.2.13, "Control Systems not required for safety" as an equipment protection signal, designed to protect the turbine blading from moisture carryover. As the turbine was shutdown at the time of the event this equipment protection function was not required.

Description of Event

On 3/14/92, the station was in Operation Mode 4 (Hot Shutdown), and in the process of cooling down to begin refueling operations. Operators, in accordance with the shutdown procedures (Operating Manual procedure 20M-51.4, "Station Shutdown - Cooldown From Hot Standby to Cold Shutdown"), were maintaining the steam generator levels between 60 and 70 percent for an eight hour chemistry control soak period. Feed water to the steam generators was being provided from the condensate pumps via the bypass feedwater regulating valves (BFRV). The BFRVs had to be operated in manual, since their automatic control circuit would have attempted to maintain the steam generator level at the programmed level of 33 percent, which would be below the procedural level requirements of the chemistry soak.

At this time, operators were also placing the Residual Heat Removal (RHR) system in service. Operators were aligning the system and preparing to initiate RHR flow to support the plant cooldown.

At 1613 hours, the A steam generator level increased to 75 percent and initiated a feedwater isolation (FWI) signal. This FWI signal caused the three feedwater containment isolation valves FWS*HYV157A, B and C to close. All other components that receive a this FWI signal (the main turbine, the main feedwater pumps and the main feedwater regulating valves) had already been either removed from service or secured by the station shutdown procedures.

Cause of event

The shutdown procedure had the operators maintain the steam generator levels at 60 to 70 percent for the chemistry soak. This is above the high level deviation alarm setpoint (38 percent) and just below the feedwater isolation setpoint (75 percent). It has been determined that maintaining this level was not necessary and as such contributed to this event since the procedure was written to require this abnormal condition. Under these operating conditions, no alarm was available to alert the operators to the increasing level in the A steam generator. The operators were distracted while placing the RHR system into service and failed to maintain proper control of steam generators levels.

Corrective Actions

1) At 1615 hours, level was reduced to less than 75 percent and then restored to the 60 to 70 percent range required by procedures. At 1622 hours, operators reopened the feedwater containment isolation valves that had been closed by the FWI signal.

2) The involved operator was counseled concerning this event.

3) The shutdown procedure is being revised to perform the steam generator soak at the normal level band so that the deviation alarm will be available to alert the operators to level increases.

Previous Similar Events

Review of station records revealed no recent similar events.

Reportability

The inadvertent feedwater isolation signal in this event actuated three containment isolation/engineered safety feature (ESF) valves and is being considered an unplanned ESF actuation. This event is therefore being reported in accordance with 10CFR50.73.a.2.iv.

Safety Implications

There were no safety implications due to this event. A feedwater isolation due to a Hi-Hi steam generator level is described in Beaver Valley Unit 2 UFSAR section 7.7.2.13, "Control systems not required for safety." This isolation does not serve any reactor safety function, but is provided to protect the main turbine blades from damage due to excessive moisture carryover that could result from high steam generator levels. The main turbine had already been removed from service prior to this event as part of the plant shutdown, therefore this equipment protective function was not required.