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December 14, 1990
ND3MNO:3077

Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
LER 90-023-00

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 90-023-00, 10 CFR 50.73.a.2.iv, "ESF Actuation - Feedwater Isolation Due to Condenser Steam Dump Valve Response".

Very truly yours,

K. L. Ostrowski
for

T. P. Noonan
General Manager
Nuclear Operations

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Attachment

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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 - Feedwater Isolation Due to Condenser Steam Dump Valve Response

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 1	1 4	9 0	9 0	- 0 2 3	- 0 0	1 2	1 4	9 0	N/A	0 5 0 0 0
										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)			
3	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 0 0	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)(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
T.P. Noonan, General Manager Nuclear Operations	AREA CODE 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	
X	J I	P C V	X X X X	N							

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 11/14/90, at 0001 hours, with the Unit in Hot Standby, a surveillance test for reactor coolant system (RCS) resistance-temperature-detectors (RTD) calibration verifications were in progress. This test requires the steam generators levels at 56% and the operating crew to maintain a target RCS temperature of 450F. When the RCS temperature is within 5 degrees of the target, the test directs the operator to utilize the steam dump system to decrease the heatup rate. At 0639 hours, the operator placed a demand signal on the steam dump system to initiate opening of the steam dump valves. This action resulted in a "swell" in all three steam generators, and a Feedwater Isolation (FWI) signal due to level in the 21B steam generator reaching the 75% setpoint value. The cause for this event was the calibration of the steam dump system. Three valves in the first bank of steam dump valves opened simultaneously rather than sequentially causing the rapid increase in steam flow. The FWI signal was reset and the feedwater containment isolation valves were reopened at 0642 hours. The first bank of steam dump valves have been recalibrated to open in a sequential mode. There were no safety implications as a result of this event. The feedwater containment isolation valves closed as designed upon receipt of the FWI signal. All other components actuated by the FWI signal were not in service.

DESCRIPTION OF EVENT

On 11/14/90, at 0001 hours, with The Unit in Hot Standby (operating Mode 3), a surveillance test for reactor coolant system (RCS) resistance-temperature-detectors (RTD) calibration verification was in progress. This test requires the steam generators levels at 56% and the operating crew to maintain a target RCS temperature of 450F. When the RCS temperature is within 5 degrees of the target, the test directs the operator to utilize the steam dump system to decrease the heatup rate. The steam dump system was in the "Steam Pressure Control Mode" which will normally allow operation of the first two banks of valve (9 valves) to maintain steam header pressure at a corresponding setpoint determined by the operator. At the RCS temperature of 450F, a control interlock restricts operation of the steam dump valves to three pressure control valves, which will respond to the steam dump controller. At 0639 hours, the operator placed a demand signal on the steam dump system to initiate opening of the steam dump valves. This action resulted in a "swell" in all three steam generators, and a Feedwater Isolation (FWI) signal due to level in the 21B steam generator reaching the 75% setpoint value. The FWI signal resulted in closure of the feedwater containment isolation valves. The three pressure control valves opened simultaneously rather than sequentially causing the rapid increase in steam flow and the subsequent "swell" of levels in the steam generators. The FWI signal was reset and the feedwater containment isolation valves were reopened at 0642 hours. The Nuclear Regulatory Commission was notified of this Engineered Safety Features actuation at 0730 hours.

CAUSE OF THE EVENT

The cause for this event was the operation of the steam dump system in the Steam Pressure Control Mode. The two banks of steam dump valves, including the three pressure control valves which are interlocked with RCS temperature, were calibrated to open simultaneously based on the magnitude of controller output. This caused a rapid increase in steam flow and the subsequent "swell" of levels in the steam generators.

CORRECTIVE ACTIONS

The following corrective actions have been or will be taken as a result of this event:

1. The FWI signal was reset and the feedwater containment isolation valves were reopened at 0642 hours.

2. The steam dump valves have been recalibrated to provide sequential opening versus simultaneous opening upon receipt of a demand signal.

REPORTABILITY

This event was reported to the Nuclear Regulatory Commission at 0730 hours in accordance with 10CFR50.72.b.2.ii. This written report is being issued in accordance with 10CFR50.73.a.2.iv, an an event involving an Engineered Safety Features (ESF) system actuation.

PREVIOUS OCCURRENCES

The following similar events involving feedwater isolations and steam dump system operation have been previously reported for Unit 2:

LER 87-009-00 "Inadvertent Feedwater Isolation"

LER 87-017-00 "Inadvertent Feedwater Isolatior Due To A Procedural Deficiency"

LER 90-021-00 "Inadvertent Feedwater Isolation Due To Repressurization Of Main Steam Header"

cc: Mr. T. T. Martin, Regional Administrator
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