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SUBJECT: LER 90-003-00:on 900110,condition outside design basis for recirculation spray sys.

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February 9, 1990
ND3MNO:2025

Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
LER 90-003-00

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 90-003-00, 10 CFR 50.73.a.2.ii.B, "Condition Outside the Design Basis for the Recirculation Spray System".

Very truly yours,

T. P. Noonan
General Manager
Nuclear Operations

cj

Attachment

IE22
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)
Beaver Valley Power Station, Unit 1	0 5 0 0 0 3 3 4	1 OF 0 3

TITLE (4)

Condition Outside the Design Basis for the Recirculation Spray System

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)
0 1	1 0	9 0	9 0	0 0 3	0 0	0 2	0 9	9 0	N/A	0 5 0 0 0
									N/A	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)			
1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 1 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)	X 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
Thomas 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
B	B E	X X X X	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 1/10/90, it was determined that the Recirculation Spray Heat Exchanger (RSHX) river water radiation monitor sample lines do not have a containment isolation valve that is automatic, remote manual or locked shut. This configuration does not meet General Design Criteria (GDC) 57, and no exception had previously been taken in the Updated Final Safety Analysis Report (UFSAR). The RS System is designed to provide the cooling and depressurization of the containment (CNMT) after any Loss Of Coolant Accident (LOCA). The River Water (WR) system is designed to supply cooling water to at least two of the four RS heat exchangers. During accident conditions, the RSHX radiation monitors analyze a continuous sample obtained from each heat exchanger river water outlet. The outside CNMT river water lines discharging from the RSHXs contain a one inch branch line, to the RSHX radiation monitors, between the CNMT penetration and the CNMT motor operated isolation valve. This branch line does not meet the requirements of GDC 57. The cause for this event was a deficiency in the UFSAR documentation. A Justification for Continued Operation and an exemption to GDC 57 have been issued. There were no safety implications as a result of this event. In the event of a RSHX tube failure, provisions exist for isolation of the pathway outside of containment.

DESCRIPTION

On 1/10/90, it was determined that the Recirculation Spray Heat Exchanger (RSHX) river water radiation monitor (RM-RW-100A, 100B, 100C, 100D) sample lines do not have a containment isolation valve that is automatic, remote manual or locked shut. This configuration does not meet General Design Criteria (GDC) 57, and no exception had previously been taken in the Updated Final Safety Analysis Report (UFSAR). The systems involved are the Recirculation Spray (RS) System, the River Water (WR) System and the Radiation Monitoring System. The RS System is designed to provide the cooling and depressurization of the containment (CNMT) after any Loss Of Coolant Accident (LOCA). The WR system is designed to supply cooling water to at least two of the four RS heat exchangers. During accident conditions, the RSHX radiation monitors, one monitor for each heat exchanger, analyze a continuous sample obtained from each heat exchanger water outlet. The outside CNMT river water lines discharging from the RSHXs contain a one inch branch line, to the RSHX radiation monitors, between the CNMT penetration and the CNMT motor operated isolation valve. This branch line does not meet the requirements of GDC 57.

CAUSE OF THE EVENT

The cause for this event was a deficiency in the UFSAR documentation. The system design is sufficient to address the technical aspects of this concern, however, the UFSAR Section 5.3.3 does not describe this deviation from General Design Criteria 57.

CORRECTIVE ACTIONS

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

1. A Justification for Continued Operation (JCO) has been repared to address the deviation from GDC 57.

2. An request for exemption to GDC 57 has been initiated through a letter from J. D. Sieber dated, January 11, 1990.

3. Operating procedures were reviewed and were found to ensure isolation of the affected heat exchanger and monitoring path in the event of a tube failure during a postulated accident.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Beaver Valley Power Station, Unit 1	0 5 0 0 0 3 3 4	9 0	— 0 0 3	— 0 0	0 3 OF 0 3

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

SAFETY IMPLICATIONS

There were safety implications to the public as a result of this event. The existing plant configuration presents no adverse effects as a result of postulated accidents since flow of contaminated fluid through the sample line would require that a passive failure be assumed (recirculation spray heat exchanger tube leak) in the short term following the initiating accident. Assumption of this type of failure is not within the Beaver Valley Power Station Unit 1 licensing basis (Reference: UFSAR Section 1.3.1). Assumption of the tube failure presents no adverse effects in the long term since existing operating procedures contain provisions for shutdown of the recirculation spray pump. This removes the driving force for the leak since the containment is subatmospheric and provides time for operators to complete manual isolation of the sample lines as well.

REPORTABILITY

This event has been reported in accordance with 10CFR50.72. This written report is being submitted in accordance with 10CFR50.73.a.2.ii.B, as a condition that is outside the design basis of the plant as described in the Updated Final Safety Analysis Report.