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May 21, 1993  
ND3MNO:3457


Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, Licensee No. DPR-66  
LER 93-008-00

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 93-008-00, 10 CFR 50.73.a.2.i.B, "Check Valves Not Included in ASME Testing Program."

  
L. R. Freeland  
General Manager  
Nuclear Operations

DJM/sl

Attachment

210070  
9305260502 930521  
PDR ADOCK 05000334  
S PDR

*JEZ*

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cc: Mr. T. T. Martin, Regional Administrator  
United States Nuclear Regulatory Commission  
Region 1  
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United States Nuclear Regulatory Commission  
Washington, DC 20555

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**LICENSEE EVENT REPORT (LER)**

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNRB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Beaver Valley Power Station Unit 1

DOCKET NUMBER (2)

05000 3 3 4

PAGE (3)

1 OF 03

TITLE (4)

Check Valves Not Included in the ASME Testing Program

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	23	93	93	008	00	05	21	93	N/A	05000 N/A
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)			
6	0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
		<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
		<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> OTHER
		<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<small>(Specify in Abstract Below and on Text, NRC Form 366A)</small>
		<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
		<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
L. R. Freeland, General Manager Nuclear Operations	412 643-1258

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS
A	K F	XXXX	XXXX	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES <small>(If yes, complete EXPECTED SUBMISSION DATE)</small>	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 4/23/93, during hydrostatic testing on the train "A" Reactor Plant River Water System (RW), leakage was detected through two check valves in the chlorine injection line. Further investigation determined that these check valves, and their train "B" counterparts, were not included in the station's ASME Section XI testing program, and were not tested in accordance with Technical Specification surveillance requirement 4.0.5. An engineering analysis determined that the as-found leakage for each train did not adversely affect the ability of the RW system to fulfill its safety function. This event is being reported as a condition prohibited by Technical Specifications.

REQUIRED NUMBER OF DIGITS/CHARACTERS  
FOR EACH BLOCK

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 -- FACILITY NAME 8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Beaver Valley Power Station Unit 1	05000 3 3 4	9 3	- 0 0 8 -	0 0	OF 02 03

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

DESCRIPTION OF EVENT

On 4/23/93 with the plant in Mode 6 (Refueling), a hydrostatic test on the train "A" Reactor Plant River Water System (RW) was in progress. Leakage was detected through two series check valves in the chlorine injection line. Further investigation determined that these check valves, and the equivalent valves on train "B", were not included in the station's ASME Section XI testing program, and were not tested in accordance with Technical Specification surveillance requirement 4.0.5.

The function of these series check valve pairs is to limit back-leakage from the train independent RW headers, assuming the non-safety related chlorine injection piping breaks during accident conditions.

Since excessive check valve leakage could degrade RW system performance, the leakage was quantified and evaluated. The measured leakage was 18 gpm for the train "A" check valves, and negligible (<0.02 gpm) for the train "B" check valves. Using the as-found 18 gpm leak rate, the maximum expected leakage from the train "A" RW header, with the piping downstream of the check valves completely failed, would be 34 gpm. A 500 gpm leak at these check valves would have to occur in order to prevent a RW header from fulfilling its safety function. Therefore, the leakage exhibited through the check valves did not affect RW system operability.

Although the as-found leakage for each train did not adversely affect the ability of the RW system to fulfill its safety function, the valves will be replaced or refurbished to correct the leakage.

CAUSE OF EVENT

The cause of this event was a failure to include the subject check valves in the ASME Section XI testing program when the program was developed.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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Beaver Valley Power Station Unit 1	05000 3 3 4	9 3	- 0 0 8 -	0 0	OF 03 03

TEXT (If more space is required, use additional copies of NRC Form 365A) (17)

CORRECTIVE ACTIONS

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

1. The check valves have been added to the station's ASME testing program.
2. The check valves will be replaced or refurbished to correct the leakage problem.

REPORTABILITY

This report is being submitted in accordance with 10CFR 50.73.a.2.i.B as a condition prohibited by Technical Specifications. Technical Specifications require that ASME Class 1, 2, and 3 components be inspected and tested in accordance with surveillance intervals specified in ASME Boiler and Pressure Vessel Code Section XI.

SAFETY IMPLICATIONS

There were no safety implications due to this event. It was determined that the Reactor Plant River System would be able to fulfill its safety function during accident conditions with the degraded check valves in their as-found condition.

SIMILAR EVENTS

Review of station documents showed the following similar events involving ASME inservice testing and inspection program deficiencies:

LER 1-91-019-02 documented the failure to inspect certain welds during the first ten year inspection interval as required by ASME Section XI.

LER 1-92-001 documented the failure to time a containment isolation valve in the closed direction, as required by ASME Section XI.