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NPD1VPO:0462

Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, Licensee No. DPR-66
LER-96-001-00

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

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

LER 96-001-00, 10 CFR 50.73.a.2.i.B, "Condition Prohibited by Technical Specifications-Main Steam Safety Valve Setpoints Not Within Specifications".

T. P. Noonan
Division Vice President
Nuclear Operations/Plant Manager

JLS/nlc

Attachment

220043

IE22

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FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Beaver Valley Power Station Unit 1	05000334	1 OF 3

Condition Prohibited by Technical Specifications - Main Steam Safety Valve Setpoints not within Specification

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 NAME	DOCKET NUMBER
03	20	96	96	001	00	04	17	96	N/A	
									FACILITY NAME: N/A	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 20 CFR § (Check one or more) (11)											
POWER LEVEL (10)	65%		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)				
			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)	X	50.73(a)(2)(vii)		OTHER				
			20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in abstract below and in Text NRC Form 366A)				
			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 (include Area Code)
T. P. Noonan, Vice-President Nuclear Operations	(412) 393-7622

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS				COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
D	SB	RV	D245	Y						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO				

ABSTRACT (Limited to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 19 and March 20, 1996, with Beaver Valley Unit 1 operating at 65% power, eight Main Steam Safety Valves were determined by testing to be outside the Technical Specification 3.7.1.1 setpoint tolerance of +1% - 3%. Testing of these valves was previously conducted, in Hot Standby (mode 3), on March 1, 1995 in response to NRC Information Notice 94-56. At that time, five of the eight affected valves were found to have setpoints outside the allowable tolerance, and were reset to their respective nominal setpoints. Three of the affected valves were found to be above their nominal setpoint, but within tolerance during the 3/1/95 testing and were not reset. When these valves were tested in Power Operation on March 19, 1996 and March 20, 1996, their setpoints were found to be above allowable tolerance. The eight valves had their setpoints out of tolerance because of setpoint drift. Engineering evaluation has attributed the most likely cause of this setpoint drift to be the valves not having reached thermal stability when they were tested in Mode 3. In accordance with Technical Specification 3.7.1.1, all of the failed valves were adjusted to reduce their setpoints to acceptable conditions within four hours. This report is being submitted in accordance with 10CFR50.73.a.2.i.B as a condition prohibited by Technical Specifications, and with 10CFR 50.73.a.2.vii as a common cause failure.

DESCRIPTION OF EVENT

On March 1, 1995 Main Steam Safety Valve (MSSV) testing was conducted in response to NRC Information Notice 94-56, which addressed concerns regarding mean seat area when using an assist device to determine safety valve set pressure. At that time, six MSSVs were identified as having setpoints suspected as being above the allowable tolerance as reported in LER 1-95-004. Five MSSVs underwent setpoint adjustments as a result of the testing. These adjustments were performed in Hot Standby (Mode 3) following the 10th refueling outage.

On March 19 and 20, 1996, with Beaver Valley Unit 1 in Power Operation at 65% power, eight Main Steam Safety Valves were determined, by testing, to have setpoints above the Technical Specification 3.7.1.1 setpoint tolerance of +1% - 3%. Five of these MSSVs were among the six valves which had undergone setpoint verification in March of 1995, following the 10th refuleing outage. The other three valves found to be out of tolerance had been observed to be above their nominal setpoints, but within tolerance, during the March 1, 1995 test.

CAUSE OF EVENT

The cause of this event was due to two factors:

1. Three of the valves were left with setpoints close to their upper setpoint limits. This along with a relatively small amount of normal setpoint drift caused the setpoints to exceed their allowable tolerance.

2. The other five valves had been reset in Hot Standby (Mode 3) following the 10th refueling outage. Their setpoint drift may be attributed to the valves not having reached thermal stability when they were tested in Mode 3.

CORRECTIVE ACTIONS

1. Main Steam Safety Valve setpoint adjustments were performed on March 19 and 20, 1996, to reduce the setpoints to acceptable values. Retesting was performed to verify that the setpoints were within the allowable Technical Specification tolerance.

2. Revisions to Unit 1 and Unit 2 test procedures are being evaluated to address the need for valve thermal stability prior to setpoint adjustment. Any required changes will be completed prior to the next use of these procedures.

REPORTABILITY

This written report is being submitted in accordance with 10 CFR 50.73.a.2.i.B as a condition prohibited by Technical Specifications. In addition, this event introduced a common mode failure mechanism for Main Steam Safety Valves at Unit 1, and meets the criteria for reportability of 10CFR50.73.a.2.vii.

SAFETY IMPLICATIONS

Safety implications from this event are minor. The basis for Technical Specification 3.7.1.1 states that the safety valves are sized to accommodate a 100% load rejection with subsequent loss of condenser heat sink and maintain secondary system pressure at less than 1085 psig. The as-found setpoint errors created Main Steam Safety Valve lift setpoints which were greater than the Technical Specification 3.7.1.1 allowable tolerance of +1%. This would have prevented eight of the fifteen MSSVs from opening at or below their setpoints, however the difference between measured lift setpoints and maximum allowed lift setpoints was less than 10 psig for all eight valves and did not appreciably compromise their capability to perform their intended function.

PREVIOUS SIMILAR EVENTS

There are several previous similar events involving Main Steam Safety Valve setpoint drift including LERs 81-106, 83-019, 84-011, 86-002 and 95-004. Setpoint drift was a factor in all previous events, but temperature differences due to testing in different operational modes was not previously identified.