10 CFR 50.73

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION
P. O. BOX 402
MINERAL, VIRGINIA 23117

May 4, 1989

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. N-89-008A
NAPS/JHL: nih
Docket No. 50-339

License No. NPF-7

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Unit 2.

Report No. LER 89-005-01

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to Safety Evaluation and Control for their review.

Very truly yours,

G. E. Kane for
Station Manager

Enclosure

cc: U. S. Nuclear Regulatory Commission
101 Marietta Street, N. W.
Suite 2900
Atlanta, Georgia 30323

Mr. J. L. Caldwell
NRC Senior Resident Inspector
North Anna Power Station

IE22
1/1

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)
NORTH ANNA POWER STATION, UNIT 2	0 5 0 0 0 3 3 9	1 OF 0 4

TITLE (4)

MAIN STEAM SAFETY VALVES SETPOINTS OUT OF TOLERANCE

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 3	1 4	8 9	8 9	0 0 5	0 1	0 5	0 4	8 9		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 6

POWER LEVEL (10): 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

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)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	X 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
G. E. Kane, Station Manager	7 0 3 8 9 4 - 5 1 5 1

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	

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)

At 1430 hours on March 14, 1989, with Unit 2 in Mode 6 (Refueling), 5 of 15 Main Steam Line Code Safety Valves (MSSVs), "as found" set pressures were found to be outside the lift set pressure tolerance allowed by Technical Specification 3.7.1.1. This event is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

On March 3, 1989, all 15 MSSVs were sent to Wyle Labs to determine the "as found " set pressure, the amount of disc to seat leakage under limited flow conditions and the set pressure, blowdown, and the amount of disc to seat leakage under full flow conditions. Five of the MSSVs "as found" set pressures exceeded the Technical Specification limits and 15 exhibited disc to seat leakage following the "as found" testing.

None of the valves leaked during the final leak test following inspection, cleaning, and refurbishment.

This event posed no significant safety implications because the impact of the high "as found" MSSV set pressures has been reviewed and the expected peak main steam pressure was found to be less than the main steam design basis pressure. There is no impact on having low "as found" set pressures because the MSSVs would have performed their safety function with a main steam pressure event. The health and safety of the general public were not affected during the event.

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

1.0 Description of Event

At 1430 hours on March 14, 1989, with Unit 2 in Mode 6 (Refueling), 5 of the 15 Main Steam Line Code Safety Valves (MSSVs) (EIIS System Identifier SB, Component Identifier RV, Vendor Identifier C710) "as found" set pressures were found to be outside the lift set pressures allowed by Technical Specification 3.7.1.1. This event is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

On March 3, 1989, all 15 MSSVs were sent to Wyle Labs to determine the "as found " set pressure, the amount of disc to seat leakage under limited flow conditions and the set pressure, blowdown, and the amount of disc to seat leakage under full flow conditions. All the tests were performed in accordance with Periodic Test (1-PT-70), Main Steam Code Safety Valve Setpoint Verification. The "as found" set pressures on 5 of 15 MSSVs were found to be outside the allowable values stated in 1-PT-70. These allowable values are the same as those required by Technical Specification 3.7.1.1.

Upon disassembly of the valves for inspection, cleaning and refurbishment, 8 of the valves were determined to need the nozzle assembly and disc seating surfaces lapped, 15 of the valves needed their discs replaced, and 7 of the valves needed the body/nozzle assembly replaced. Each valve was tested for set pressure, blowdown, and seat leakage on the Wyle Full-Flow Steam System. All 15 MSSVs were leaking following the blowdown tests. While maintaining spring compression, the valves were disassembled, lapped, reassembled and tested for seat leakage. None of the valves exhibited leakage during this final leak test. A list of the "as found" and "as left" set pressures is provided in Attachment 1.

2.0 Significant Safety Consequences and Implications

This event posed no significant safety implications because the impact of the high "as found" MSSV set pressures has been evaluated considering the most limiting UFSAR transient analysis, Loss of Load. As a result of this evaluation, the expected peak main steam pressure resulting from the high "as found" MSSV set pressures was found to be less than the main steam design basis pressure. There is no impact on having low "as found" set pressures because the MSSVs would have performed their safety function with a main steam pressure event. The health and safety of the general public were not affected during this event.

3.0 Cause of the Event

The cause of this event has not been determined.

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

4.0 Corrective Action

The MSSVs were refurbished and retested by Wyle Labs until the set pressures were within the allowable limit of Technical Specification 3.7.1.1 and exhibited no disc to seat leakage.

5.0 Additional Corrective Actions

As an additional corrective action, an evaluation is being conducted to determine if the tolerance for the MSSV setpoints can be increased from +/- 1 percent. If additional tolerance can be justified, a Technical Specification change will be considered.

6.0 Similar Events

Previous similar events have occurred at North Anna Power Station on Unit 1 on February 8, 1980 (LER 80-009/03L-0), May 8, 1987 (LER 87-009-01), and on Unit 2 on April 21, 1983 (LER 83-027/03L-0), February 21, 1986 (LER 86-001-01), and January 21, 1988 (LER 87-009-01).

7.0 Additional Information

North Anna Unit 1 was in Mode 5 throughout this event and was not affected.

*U.S. GPO: 1988-520-589/00070

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

ATTACHMENT 1

VALVE	SET PRESSURE (PSIG)	AS FOUND (PSIG)	AS LEFT (PSIG)
2-MS-SV-201A	1085 +/- 11	1081	1080
2-MS-SV-201B	1085 +/- 11	1076	1090
2-MS-SV-201C	1085 +/- 11	1109	1091
2-MS-SV-202A	1095 +/- 11	1137	1101
2-MS-SV-202B	1095 +/- 11	1091	1090
2-MS-SV-202C	1095 +/- 11	1088	1100
2-MS-SV-203A	1110 +/- 11	1154	1103
2-MS-SV-203B	1110 +/- 11	1107	1104
2-MS-SV-203C	1110 +/- 11	1112	1104
2-MS-SV-204A	1120 +/- 11	1111	1121
2-MS-SV-204B	1120 +/- 11	1101	1117
2-MS-SV-204C	1120 +/- 11	1131	1125
2-MS-SV-205A	1135 +/- 11	1131	1141
2-MS-SV-205B	1135 +/- 11	1134	1140
2-MS-SV-205C	1135 +/- 11	1116	1137

As found values are for the initial lift of the three test runs.
As left values are average.