

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

P. O. BOX 402

MINERAL, VIRGINIA 23117

10 CFR 50.73

April 27, 1993

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

NAPS:MPW
Docket No. 50-338
License No. NPF-4

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Unit 1.

Report No. 5 338/93-012-00

This Report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to the Corporate Management Safety Review Committee for its review.

Very Truly Yours,



G. E. Kane
Station Manager

Enclosure:

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

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station

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LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)
North Anna Power Station Unit 1

DOCKET NUMBER (2)
050003381

PAGE (3)
1 OF 03

TITLE (4) ENGINEERED SAFETY FEATURE ACTUATION WHERE THE MAIN STEAM TRIP VALVES CLOSED ON THE GENERATION OF A MAIN STEAM LINE ISOLATION SIGNAL DUE TO PERSONNEL ERROR

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	4	08	93	012	00	0	4	27	93		050003381																								
OPERATING MODE (9) 4			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)																																
POWER LEVEL (10) 000			<table border="0"><tr><td>20.402(b)</td><td>20.405(c)</td><td><input checked="" type="checkbox"/> 50.73(a)(2)(iv)</td><td>73.71(b)</td></tr><tr><td>20.405(a)(1)(i)</td><td>50.36(c)(1)</td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.405(a)(1)(ii)</td><td>50.36(c)(2)</td><td>50.73(a)(2)(vi)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 305A)</td></tr><tr><td>20.405(a)(1)(iii)</td><td>50.73(a)(2)(i)</td><td>50.73(a)(2)(vii)(A)</td><td></td></tr><tr><td>20.405(a)(1)(iv)</td><td>50.73(a)(2)(ii)</td><td>50.73(a)(2)(vii)(B)</td><td></td></tr><tr><td>20.405(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td>50.73(a)(2)(ix)</td><td></td></tr></table>									20.402(b)	20.405(c)	<input checked="" type="checkbox"/> 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)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 305A)	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	
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LICENSEE CONTACT FOR THIS LER (12)

NAME
G. E. Kane

TELEPHONE NUMBER
AREA CODE
703894-2101

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	

SUPPLEMENTAL REPORT EXPECTED (14)

☐ YES (If yes, complete EXPECTED SUBMISSION DATE) ☒ NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On April 8, 1993, at 0257 hours with Unit 1 in Mode 4, hot shutdown, a main steam line isolation signal was generated, causing the main steam trip valves to close, as a result of simultaneously blowing down two steam flow transmitter sensing lines. Flow transmitter sensing line blow down is performed to remove any condensation and/or non-condensable gas. The blowdown evolution resulted in a high steam flow signal on one of two protection channels on two of three main steam lines coincident with low low reactor coolant system average temperature or low steam line pressure which initiated the main steam trip valve isolation signal. A four hour report was made to the NRC pursuant to 10CFR50.72(b)(2)(ii). This event is reportable pursuant to 10CFR50.73(a)(2)(iv) as an automatic actuation of an Engineered Safety Feature (ESF) component.

The cause of the event was personnel error due to communications and self check inadequacies. Upon receiving the notification to blow down the sensing lines a second time adequate self check techniques were not employed to ensure only one transmitter sensing line was worked at a time.

No significant safety consequences resulted from the event because all components functioned as required for the ESF actuation. In addition, there was no actual transient in progress. Therefore, the health and safety of the public were not affected at any time during this event.

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 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.

FACILITY NAME (1) North Anna Power Station Unit 1	DOCKET NUMBER (2) 05000338	LER NUMBER (6)				PAGE (3)	
		YEAR 93	SEQUENTIAL NUMBER 012	REVISION NUMBER 00	02 OF 03		

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

1.0 Description of the Event

On April 8, 1993, at 0257 hours with Unit 1 in Mode 4, hot shutdown, a main steam (EIIS System SB) line isolation signal was generated, causing the main steam trip valves (EIIS System SB, Component ISV) to close, as a result of simultaneously blowing down the steam line flow transmitter (EIIS System SB, Component FT) sensing lines. The blow down evolution resulted in a high steam flow signal on one of two protection channels (EIIS System JG, Component CHA) on two of three main steam lines coincident with low low Reactor Coolant System (RCS) average temperature or low steam line pressure which initiated a safety injection signal and main steam trip valve (MSTV) isolation. The safety injection signal was previously blocked in accordance with station procedures. A four hour report was made to the NRC pursuant to 10CFR50.72(b)(2)(ii). This event is reportable pursuant to 10CFR50.73(a)(2)(iv) as an automatic actuation of an Engineered Safety Feature (ESF) component.

The main steam line flow transmitter blowdown for plant start-up was in progress in containment. Flow transmitter sensing line blow down is performed to remove any condensation and/or non-condensable gas. While the blow down is in progress the indicator in the control room is observed to ensure proper indicator deflection. Individuals performing the blow down were notified that two steam flow transmitters were still reading above the desired indication and required additional blowdown. Blow down of both transmitters at the same time caused one of two protection channels on two of three main steam lines to indicate high steam flow with low RCS temperature and/or low main steam pressure resulting in the main steam line isolation signal.

2.0 Significant Safety Consequences and Implications

No significant safety consequences resulted from the event because all components functioned as required for the ESF actuation. In addition, there was no actual transient in progress. Therefore, the health and safety of the public were not affected at any time during this event.

3.0 Cause of the Event

The cause of the event was personnel error due to communications and self check inadequacies. Upon receiving the notification to blow down the sensing lines a second time adequate self check techniques were not employed to ensure only one transmitter sensing line was worked at a time.

4.0 Immediate Corrective Actions

Blow down activities were immediately suspended. The SG Pressure Operated Relief Valves (PORV) were opened for approximately 5 minutes to control RCS temperature. The steam dumps were shut to prevent loss of main steam header pressure and the MSTV bypasses were opened to equalize delta pressure across the MSTVs. The MSTVs were opened and heat removal was transferred from the SG PORVs to the steam dumps.

LICENSEE EVENT REPORT (LER)
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		93	012	00	03 OF 03		

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

5.0 Additional Corrective Actions

The technicians involved with the flow transmitter sensing line blow down were counseled on the importance of employing proper self check techniques and to ensure communications are effective.

6.0 Actions to Prevent Recurrence

Coaching sessions with all Instrument & Controls personnel on the importance of self checking have been applied. Actions taken are sufficient to preclude recurrence.

7.0 Similar Events

None

8.0 Additional Information

Unit 2 was operating in Mode 1 at 100 percent power and was not affected by this event.