

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

P. O. BOX 402

MINERAL, VIRGINIA 23117

10 CFR 50.73

April 21, 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. 50-338/93-011-00

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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Handwritten initials/signature

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)
05000338

PAGE (3)
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TITLE (4) ENGINEERED SAFETY FEATURE ACTUATION OF REACTOR TRIP AND BYPASS BREAKERS OPENING DURING SOLID STATE PROTECTION TESTING 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 NAME(S)	DOCKET NUMBER(S)
0	4	03	93	011	00	0	4	21		05000338
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)										
OPERATING MODE (9)		5		20.402(b)		20.405(c)		<input checked="" type="checkbox"/> 50.73(a)(2)(vi)		73.71(b)
POWER LEVEL (10)		000		20.405(a)(1)(i)		50.36(c)(1)		<input type="checkbox"/> 50.73(a)(2)(v)		73.71(c)
				20.405(a)(1)(ii)		50.36(c)(2)		<input type="checkbox"/> 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)		<input type="checkbox"/> 50.73(a)(2)(viii)(A)		
				20.405(a)(1)(iv)		50.73(a)(2)(ii)		<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
				20.405(a)(1)(v)		50.73(a)(2)(iii)		<input type="checkbox"/> 50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME
G. E. Kane

TELEPHONE NUMBER
AREA CODE
703 894-2101

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 3500 single-space typewritten lines) (16)

On April 3, 1993, at 2107 hours with Unit 1 in Mode 5, cold shutdown, the Unit 1 "B" Reactor Trip and "A" Bypass breakers opened after receiving an automatic reactor trip signal when the "A" Steam Generator (SG) level reached its setpoint limit of 18 percent on two of three channels. The automatic reactor trip signal was an expected actuation for the SG draining evolution in progress. The opening of the breakers was not expected since they were believed to have been defeated during performance of the Train "A" Reactor Protection (RPS) and Engineered Safety Feature (ESF) Logic Channel functional test which was occurring simultaneously. The breakers are part of the ESF system and tripping them was not preplanned. As such, the event is reportable pursuant to 10CFR50.73 (a)(2)(iv) as an automatic actuation of an ESF component. A four hour report was made to the NRC pursuant to 10CFR50.72(b)(2)(ii).

The cause of the event was personnel error. Communication of actions necessary to prevent the "B" Reactor Trip and "A" Bypass breakers from opening prior to receiving the reactor trip signal was untimely.

No significant safety consequences resulted from the event because the rod control system was removed from service prior to receiving the trip signal and the actuation was of no safety significance. 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 REQUIREMENT: 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)

DOCKET NUMBER (2)

LER NUMBER (6)

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Unit 1

YEAR

SEQUENTIAL
NUMBERREVISION
NUMBER

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TEXT (If more space is required, use additional NRC Form 305A's) (17)

1.0 Description of the Event

On April 3, 1993, at 2107 hours with Unit 1 in Mode 5, cold shutdown, the "B" Reactor Trip and "A" Bypass breakers (E11S System JD, Component BKR) opened after receiving an automatic reactor trip signal when the "A" Steam Generator (SG) (E11S System AB, Component SG) level reached its setpoint limit of 18 percent on two of three channels. The automatic reactor trip signal was an expected actuation for the SG draining evolution in progress. The opening of the breakers was not expected since they were believed to have been defeated during performance of the Train "A" Reactor Protection (RPS) (E11S System JD) and Engineered Safety Feature (ESF) (E11S System JE) Logic Channel functional test which was occurring simultaneously. The breakers are part of the ESF system and tripping them was not preplanned. As such, the event is reportable pursuant to 10CFR50.73 (a)(2)(iv) as an automatic actuation of an ESF component. A four hour report was made to the NRC pursuant to 10CFR50.72(b)(2)(ii).

On April 3, 1993, the "A" Steam Generator (SG) was being pumped to the clarifier (E11S System WD, Component CLF) before being refilled to its normal operating level. During this evolution the Train "A" Reactor Protection and Engineered Safety Feature Logic Channel functional test was being performed. As part of the testing the "A" and "B" train reactor trip and "A" bypass breakers were closed.

Prior to the "A" SG reaching the 18 percent level, setpoint for RPS/ESF actuation, the question was raised as to whether the SG draining evolution would affect the channel functional testing in progress. Since the "Input Error Inhibit" switch (E11S System JG, Component HS) was selected, Train "A" would not be affected by the reactor trip signal. The question was asked again if the SG draining evolution would affect the channel functional testing in progress. It was determined that the "B" Reactor Trip and "A" Bypass breakers would open after receiving the reactor trip signal when the "A" SG reached 18 percent level. Securing the SG pump down alignment was in progress when the trip signal was received and the breakers opened.

2.0 Significant Safety Consequences and Implications

No significant safety consequences resulted from the event because the rod control system was properly removed from service prior to receiving the trip signal and the actuation was of no safety significance. 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. Communication of actions necessary to prevent the "B" Reactor Trip and "A" Bypass breakers from opening when the reactor trip signal was received was untimely.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATE BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTED IN 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)

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

4.0 Immediate Corrective Actions

Train "A" Reactor Protection and Engineered Safety Feature Logic Channel functional test was stopped. The A SG level was returned to greater than 18 percent level and the "B" Reactor Trip and "A" Bypass breakers were closed.

5.0 Additional Corrective Actions

Train "A" Reactor Protection and Engineered Safety Feature Logic Channel functional test was completed satisfactorily. Individuals involved with planning operations and testing activities were counseled on the importance of stipulating adequate controls during multiple plant work evolutions during shutdown conditions including effective communications.

6.0 Actions to Prevent Recurrence

Actions taken are sufficient to preclude recurrence.

7.0 Similar Events

Unit 2 LER N2-89-004-00 identifies the unexpected generation of a reactor trip signal during Steam Generator Feed Flow Protection Channel IV testing due to low steam generator level on May 2, 1989. Unit was in Mode 5.

Unit 1 LER N1-92-004-00 identifies the unexpected generation of a reactor trip signal during Reactor Trip From Turbine Trip Response Time testing due to not defeating Train "B" SSPS trips on February 26, 1992. Unit was in Mode 5.

8.0 Additional Information

On April 3, 1993, Unit 2 was operating in Mode 1 at 100 percent power and was not affected by this condition.