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

10 CFR 50.73

April 13, 1993

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

NAPS:DCH
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. 50-339/93-001-00

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

IE22

NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

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.

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 3

TITLE (4)
Inoperable power range nuclear instrument 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 3	2 2	9 3	9 3	- 0 0 1	- 0 0	0 4	1 3	9 3		0 5 0 0 0
										DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9): 1

POWER LEVEL (10): 1 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
G.E. Kane	AREA CODE 7 0 3 8 9 4 - 2 1 0 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)

[ ] YES (If yes, complete EXPECTED SUBMISSION DATE) [X] NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On March 22,1993, with Unit 2 at 100 percent power (Mode 1) it was identified that a condition outside the actions of Technical Specification (TS) 3.3.1.1, Table 3.3-1 Action 2(a) existed in that a power range nuclear instrument channel was inoperable for greater than one hour without being placed in trip. The channel calibration tests had been completed on power range NI channels N 41 and N 42 and returned to service. While returning power range NI channel N 43 to service following the calibration test it was noted that the delta flux indication for power range NI channel N 42 was not in agreement with the other three power range NI channels. Further evaluation determined that the detector input signal cables for power range NI channel N 42 which are disconnected from the upper and lower power range NI drawers during the calibration test had been inadvertently reversed and reconnected to the wrong drawers. This event is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

The cause of the event was personnel error due to an inadequate self check and inadequate independent verification.

No significant safety consequences resulted from this event because the minimum number of operable power range NI channels required by TS 3.3.1.1, Table 3.3-1 was maintained. Therefore, the health and safety of the public was not affected at any time during this event.

1.0 Description of the Event

On March 22, 1993 with Unit 2 at 100 percent power (Mode 1) the power range nuclear instrument (NI) channel (EIIS System Identifier-JD, Component Identifier-CHA) calibration tests had been completed on power range NI channels N 41 and N 42 and the channels returned to service. While returning power range NI channel N 43 to service following the calibration test it was noted that the delta flux indication for power range NI channel N 42 was not in agreement with the other three power range NI channels. Further evaluation determined that the detector input signal cables (EIIS Component Identifier-CBL) for power range NI channel N 42 which are disconnected from the upper and lower power range NI drawers during the calibration test had been inadvertently reversed and reconnected to the wrong drawers. It has been determined that the reversal of the detector input cables to the power range NI drawers results in the power range NI channel being inoperable. This condition had existed in excess of one hour before the channel was placed in trip and the detector input signal cables reconnected to the proper power range NI drawers. As such, the one-hour action of TS 3.3.1.1, Table 3.3-1 Action 2.(a) for an inoperable power range NI was exceeded without the channel being placed in the trip condition.

This event is reportable pursuant to 10CFR50.73 (a)(2)(i)(B) for conditions prohibited by the Technical Specifications.

2.0 Significant Safety Consequences and Implications

A study was conducted on the effects of the detector input cables being reversed and connected to the wrong power range NI drawers. Although power range NI channel N 42 was inoperable because of the reversed detector input cables the study determined that given the plant conditions at the time of the event N 42 remained capable of generating the required reactor trip inputs that are assumed in the accident analysis.

No significant safety consequences resulted from this event because the minimum number of operable power range NI channels required by TS 3.3.1.1, Table 3.3-1 was maintained. 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 human error in that self checking and independent verification were not effective. The individual reconnecting the detector input cables to the power range NI drawers did not self check that the proper connections were being made and the individual performing the independent verification failed to ensure that the detector input cables were connected to the proper power range NI drawers.

4.0 Immediate Corrective Actions

Upon discovery of the abnormal delta flux indication on power range N 42, the channel was placed in the trip condition. Subsequently, a calibration test was performed and the channel returned to an operable condition.

5.0 Additional Corrective Actions

The individuals who are responsible for the maintenance on the power range NI's will be coached on the necessity and importance of the concepts of self check and independent verification.

6.0 Actions to Prevent Recurrence

The coaching sessions for those individuals who are responsible for the maintenance on the power range NI's will reduce the probability of recurrence of this type of event.

7.0 Similar Events

None

8.0 Additional Information

Unit 1 was in Refueling (Mode 6) and was not effect by this event.