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 Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Units 1 & 2.

Report No. 50-338/93-013-00

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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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 Units 1 & 2	0 5 0 0 0 3 3 8	1 OF 0 4

TITLE (4) MISSED SURVEILLANCE TO FUNCTIONALLY TEST ENTIRE CIRCUITRY FOR MANUAL PHASE "A" ISOLATION SWITCHES AND SAFETY INJECTION INTERLOCK FOR "H" & "J" BUS UNDERVOLTAGE PROTECTION 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	1 4	9 3	9 3	- 0 1 3	- 0 0	0 4	2 7	9 3	North Anna Unit 2	0 5 0 0 0 3 3 9
										DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 5 0	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 April 14, 1993, at 0930 hours with Unit 1 in Mode 1, 50 percent power, and Unit 2 in Mode 1, 100 percent power, the continuing evaluation of Technical Specification (TS) surveillance requirements, being performed as a corrective action reported under LER 50-338/92-007-00, identified additional missed surveillances. Portions of two manual Phase "A" isolation switch circuitry were not functionally tested as required by TS. The action of TS 4.0.3 was entered for both units to allow testing within 24 hours. Testing was completed and the actions were cleared at 1712 hours for Unit 1 and 1703 hours for Unit 2. It was also determined, on April 15, 1993, that a portion of the safety injection interlock to the "H" and "J" Bus undervoltage protection circuitry was not being functionally tested as required by TS. The action of TS 4.0.3 was entered at 0800 hours and testing was completed with the actions cleared at 1345 hours for Unit 1 and 1405 hours for Unit 2. These conditions are prohibited by TS and are reportable pursuant to 10CFR50.73 (a)(2)(i)(B).

The cause of the event was personnel error resulting in failure to develop adequate procedures to test the entire component circuitry.

No significant safety consequences resulted from these conditions because subsequent testing determined the affected circuitry was capable of performing the required functions. Therefore, the health and safety of the public were not affected at any time during this event.

1.0 Description of the Event

On April 14, 1993, at 0930 hours with Unit 1 in Mode 1, 50 percent power, and Unit 2 in Mode 1, 100 percent power, the continuing evaluation of Technical Specification (TS) surveillance requirements, being performed as a corrective action reported under LER 50-338/92-007-00, identified additional missed surveillances. Portions of two manual Phase "A" isolation switch (EIIS System JE, Component HS) circuitry were not functionally tested as required by TS 4.3.2.1.1, Table 4.3-2 Item 3.a(1) on a refueling frequency. The action of TS 4.0.3 was entered for both units to allow testing within 24 hours. Testing was completed and the actions were cleared at 1712 hours for Unit 1 and 1703 hours for Unit 2. It was also determined, on April 15, 1993, that a portion of the Safety Injection (SI) interlock (EIIS System BQ, Component IEL) to the "H" and "J" bus undervoltage protection circuitry (EIIS System EK) was not being functionally tested as required by TS 4.3.2.1.1, Table 4.3-2 Item 1a on a refueling frequency. The action of TS 4.0.3 was entered at 0800 hours and testing was completed with the actions cleared at 1345 hours for Unit 1 and 1405 hours for Unit 2. These conditions are prohibited by TS and are reportable pursuant to 10CFR50.73 (a)(2)(i)(B).

Technical Specification requirement, 4.2.3.1.1 Table 4.3-2, Item 3.a(1) Phase "A" Manual Isolation, requires functional testing of the two manual isolation switches every 18 months during shutdown. A portion of the circuitry between the Containment Isolation Phase "A" Actuation switch and the master relays and between the Containment Isolation Phase "A" Actuation switch and the logic ground were not being functionally tested.

Technical Specification requirement, 4.3.2.1.1 Table 4.3-2 Item 1a Safety Injection, requires functional testing of SI interlock to the "H" and "J" Bus undervoltage protection circuitry every refueling outage for each train or logic channel. The UV circuitry interlock that starts timer 62S (EIIS Component 62), in 7.5 seconds, versus timer 62 (EIIS Component 62), in 56 seconds, on a 90 percent degraded voltage condition with a safety injection signal was not previously tested. This function is actuated by Solid State Protection System (SSPS) output relay K608 (EIIS System JG, Component RLY). During previous testing a jumper was placed between the terminal boards excluding the K608 relay. As such, testing to ensure the K608 relay actuates was not being performed.

2.0 Significant Safety Consequences and Implications

No significant safety consequences resulted from these conditions because subsequent testing determined the affected circuitry was capable of performing the required functions. 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 resulting in failure to develop adequate procedures to test the entire component circuitry. The functional testing of the manual Phase "A" isolation switch circuitry and the safety injection interlock to the "H" and "J" bus undervoltage protection circuitry were not included in the test procedures.

4.0 Immediate Corrective Actions

The action of TS 4.0.3 was entered for both units to allow testing within 24 hours. The periodic test procedures were changed to provide controls for testing. Testing was satisfactorily completed for both the manual Phase "A" isolation switch circuitry and the safety injection interlock to the "H" and "J" bus undervoltage protection circuitry on Units 1 & 2 within the required 24 hour limit.

5.0 Additional Corrective Actions

None

6.0 Actions to Prevent Recurrence

The changes to the Unit 1 & 2 periodic test procedures will be sufficient to preclude recurrence.

7.0 Similar Events

Missed surveillances concerning failure to test entire component circuitry include:

LER N1/2-92-007-00 regarding missed surveillances on the monthly Unit 2 Reactor Coolant Pump bus undervoltage/underfrequency channel functional test, 18 month Unit 1 undervoltage/underfrequency channel calibration and monthly safety injection input to reactor trip.

LER N1/2-92-009-01 regarding missed surveillances on the containment purge and exhaust radiation monitor monthly channel functional test and power operated relief valve alarm identified during corrective action reported under LER N1/2-92-007-00.

LER N1/2-92-014-00 regarding missed surveillances on the emergency diesel generator start circuitry, emergency bus undervoltage/degraded voltage trip circuitry and station service bus undervoltage/underfrequency sensors identified during corrective action reported under LER N1/2-92-007-00.

LER N1/2-93-008-00 regarding missed surveillances on the RCS loop stop valve position limit switch inputs to the Solid State Protection System (SSPS) and the manual Safety Injection switch input to all four reactor trip and bypass breaker circuits.

B.0 Additional Information

The systematic review of the surveillance program was initiated to ensure full compliance with the TS at North Anna. The review involves a line-by-line examination to verify that TS surveillance requirements are completely addressed by station procedures. These reviews are currently scheduled to be completed by June 1993. Status to date includes: Chapters 2 Power Distribution Limits, 4 Reactor Coolant System, 5 Emergency Core Cooling System, 6 Containment, 7 Plant Systems, 8 Electric Power, 10 Special Test Exceptions, and 11 Radioactive Storage - complete; Chapters 1 Reactivity Control and 3 Instrumentation (RPS, ESF, and Radiation Monitoring) and 9 Refueling - working.