Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

P. O. BOX 402

MINERAL, VIRGINIA 23117

10 CFR 50.73

April 7, 1993

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

NAPS:MPW
Docket Nos. 50-338
License Nos. 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. 50-338/93-010-00

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

120105

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

LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
North Anna Power Station Unit 1	0 5 0 0 0 3 3 8	1 OF 0 3

TITLE (4) ENGINEERED SAFETY FEATURE ACTUATION DURING REACTOR PROTECTION AND ENGINEERED SAFETY FEATURE RESPONSE TIME 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 NAMES	DOCKET NUMBER(S)
0 3	2 3	9 3	9 3	- 0 1 0	- 0 0	0 4	0 7	9 3		0 5 0 0 0
										DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9): 5

POWER LEVEL (10): 0 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)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	[X] 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 23, 1993, at 1032 hours with Unit 1 in Mode 5, cold shutdown, the Unit 1 'A' Service Water Pump (1-SW-P-1A) started unexpectedly during performance of Unit 1 Reactor Protection and Engineered Safety Feature(ESF) Train A Slave Relay Time Response Testing. Since the 1-SW-P-1A is part of the ESF system and starting this component was not preplanned, this event is reportable pursuant to 10CFR50.73 (a)(2)(iv) as an automatic actuation of an ESF component. The SW pump was promptly secured and returned to normal standby status. A four hour report was made to the NRC pursuant to 10CFR50.72(b)(2)(ii).

The cause of the event was inadequate procedure. The periodic test (PT) diagram did not identify all cables and wires as they appear in the SSPS output cabinet. During the performance of the time response testing an electrical lead, not listed in the PT, had not been properly lifted to defeat the automatic start of 1-SW-P-1A. This resulted in the pump starting when the slave relay was energized during testing.

No significant safety consequences resulted from the event because the pump started as designed when the ESF slave relay was energized. Therefore, the health and safety of the public were not affected at any time during this event.

1.0 Description of the Event

On March 23, 1993, at 1032 hours with Unit 1 in Mode 5, cold shutdown, the Unit 1 'A' Service Water Pump (1-SW-P-1A) (EIIS System BI, Component P) started unexpectedly during performance of Unit 1 Reactor Protection (EIIS System JD) and Engineered Safety Feature(ESF) Train A Slave Relay (EIIS System JE, Component RLY) Time Response Testing. Since the 1-SW-P-1A is part of the ESF system and starting this component was not preplanned, this event is reportable pursuant to 10CFR50.73 (a)(2)(iv) as an automatic actuation of an ESF component. The SW pump was promptly secured and returned to normal standby status. A four hour report was made to the NRC pursuant to 10CFR50.72(b)(2)(ii).

The Unit 1 Reactor Protection and ESF Train A Slave Relay Time Response Testing for Safety Injection Slave Relay K609 was being performed. Whenever possible, equipment that will be effected by any relay test and is capable of being placed in a non-operational condition such as manual mode, pull-to lock, or de-energized, is disabled before testing the relay. However, since placing the 1-SW-P-1A in one of these conditions would cause the equipment to be in an action statement status it was determined that the leads in the Unit 1 Train A Solid State Protection System (SSPS) Output Cabinet (EIIS System JG, Component CAB) would be lifted to defeat actuation of the pump.

The periodic test (PT) procedure diagram was used to identify the wire that would be lifted. This action would defeat the actuation of the pump when the safety injection test signal was initiated. The procedure diagram did not identify the actual cabinet wiring configurations. Two additional wires are attached to terminals 7 and 8 which also provide input to start 1-SW-P-1A. The tags attached to the wires and cables were not consistent in that the identification numbers for the wires and cables are printed on one side of the tag for some and others have the cable number on one side with the wire number on the backside. The technician lifted the lead identified in the test diagram. Upon noticing the additional lead, which had a tag showing only one identification number, the technician did not believe the additional wire needed to be lifted.

At the point in the test where the slave relay is energized to allow the recorder to record the transient the SW pump actuated because the pump had not been totally defeated.

2.0 Significant Safety Consequences and Implications

No significant safety consequences resulted from the event because the pump started as designed when the ESF slave relays was energized. 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 inadequate procedure. The periodic test diagram did not identify all cables and wires as they appear in the SSPS output cabinet. During the performance of the time response testing an electrical lead, not listed in the PT, had not been properly lifted to defeat the automatic start of 1-SW-P-1A. This resulted in the pump starting when the slave relay was energized during testing.

Contributing factors to this event included the lifting of terminal leads rather than placing the component in a non-operational condition and inconsistent cable/wire identification tagging.

4.0 Immediate Corrective Actions

The SW pump, 1-SW-P-1A, was promptly secured and returned to normal standby status.

5.0 Additional Corrective Actions

The Unit 1 Reactor Protection and ESF Train A Slave Relay Time Response Testing was completed satisfactorily on April 2, 1993.

6.0 Actions to Prevent Recurrence

The Unit 1 & 2 Periodic Test (PT) procedures will be permanently revised prior to the next respective refueling outages to clarify cabinet wiring configurations.

The identification tags on the terminal wires/cables will be replaced with new tags to ensure consistency between tags.

7.0 Similar Events

LER N1/2-89-012-00 The Unit 2 Service Water Pump, 2-SW-P-1A, inadvertently started during performance of Unit 1 Reactor Protection and ESF Train A Slave Relay Time Response Testing.

8.0 Additional Information

On March 23, 1993, Unit 2 was operating in Mode 1 at 100 percent power and was not affected by this condition.