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

10 CFR 50.73

June 4, 1992

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

Serial No. N-92-21
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 and 2.

Report No. 50-338,339/92-009-01

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. Hahn
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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920611025C 920604
PDR ADDCK 05000338
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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 Units 1 and 2

DOCKET NUMBER (2)
050003381

PAGE (3)
1 OF 04

TITLE (4)
MISSED SURVEILLANCE ON CONTAINMENT PURGE AND EXHAUST ISOLATION AND PRESSURIZER POWER OPERATED RELIEF VALVE ALARM ACTUATION DUE TO PERSONNEL ERROR DURING PROCEDURE DEVELOPMENT

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	02	92	009	01	06	04	92	North Anna Unit 2	050003381
										05000001

OPERATING MODE (9) 1

POWER LEVEL (10) 095

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 6 (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(d)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 365A)
<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME
G. E. Kane, Station Manager

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 NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit of 1400 sps.; i.e., approximately fifteen single-space typewritten lines) (16)

On April 2, 1992, with Unit 1 in Mode 1 and Unit 2 in Mode 5, an evaluation of surveillance requirements was being performed as a corrective action for missed surveillance's reported under LER 50-338,339/92-007-00. During this review, it was determined that a portion of the circuitry in the Containment Purge and Exhaust (CP/E) isolation system had not been adequately tested in accordance with Technical Specification (TS) Table 4.3-3, TS 4.6.3.1.2.c, TS 4.9.4 and TS 4.9.9. In addition, on May 21, 1992, with Units 1 and 2 in Mode 1 it was determined that the Pressurizer Power Operated Relief Valve (PORV) position indication channel calibration procedures did not include actuation verification of the associated alarm. These events are reportable pursuant to 10 CFR 50.73 (a) (2) (i) (B).

The cause of the events is personnel error resulting in failure to develop appropriate procedures to satisfy TS surveillance requirements.

This event posed no significant safety implications because subsequent testing of the CP/E channels demonstrated that all circuitry was capable of performing its intended function. The PORV event posed no significant safety implications because although subsequent testing demonstrated that the associated alarm actuated as required, the alarm is not required for the Pressurizer PORVs to perform their design functions. Therefore, the health and safety of the general public were not affected at any time due to these events.

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 Units 1 and 2	DOCKET NUMBER (2) 0500033892	LER NUMBER (6)			PAGE (3) 02 OF 04
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		92	009	01	

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

1.0 Description of the Event

On April 2, 1992, with Unit 1 in Mode 1 and Unit 2 in Mode 5, an evaluation of surveillance requirements was being performed as a corrective action for missed surveillances reported under LER 50-338,339/92-007-00. During this review, it was determined that a portion of the circuitry in the Containment Purge and Exhaust (CP/E) isolation system (EIIS System Identifier IK) had not been adequately tested. Technical Specification (TS) Table 4.3-3 "Radiation Monitoring Instrumentation Surveillance Requirements" specifies that CP/E radiation monitor (RM) (EIIS Component Identifier MON) channel functional tests be performed monthly and channel calibrations be performed at a refueling frequency. TS 4.6.3.1.2.c requires verification every 18 months that on a CP/E isolation signal, each CP/E valve actuates to its isolation position. During refueling operations, TS 4.9.4 requires that each required containment penetration be verified isolated or tested in accordance with applicable portions of TS 4.6.3.1.2 and TS 4.9.9. TS 4.9.9 specifies that the CP/E isolation system be demonstrated operable within 100 hours prior to the start of and at least once per 7 days during core alterations by verifying that CP/E isolation occurs on manual initiation and on a high radiation test signal from the containment gaseous and particulate RM instrumentation channels. The detailed review identified a portion of the CP/E isolation circuitry which was not being tested by its surveillance procedures. Since the entire circuit was not tested as required by a channel calibration and channel functional, this event is reportable pursuant to 10 CFR 50.73 (a)(2)(i)(B) as a missed TS surveillance.

The channel functional and channel calibration procedures for the RMs ensure that the RMs actuate their appropriate relays on a HI-HI signal. The CP/E actuation is tested by actuating the containment particulate RM. CP/E is then left isolated and contacts are checked on the containment gaseous and containment area RMs. The only portion of the circuit that was not tested was the permanent interconnecting wires that are connected to the RM relay contacts. Since the RM contacts that are checked do not verify continuity of the entire circuit, the CP/E isolation surveillances have been missed.

On May 21, 1992, with Units 1 and 2 in Mode 1, a Quality Assurance Department Audit of surveillance requirements determined that the Pressurizer Power Operated Relief Valve (PORV) (EIIS System Identifier AB Component Identifier PCV) position indication channel calibration procedures did not include actuation verification of the associated alarm. The alarm actuation can only be verified by stroking the PORVs, which is normally performed during refueling outages. The periodic test procedures which govern PORV stroking did not include instructions for documenting the appropriate alarm actuation.

LICENSEE EVENT REPORT (LER)
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FACILITY NAME (1) North Anna Power Station Units 1 and 2	DOCKET NUMBER (2) 05000338	LER NUMBER (6)			PAGE (3) 03 OF 04
		YEAR 92	SEQUENTIAL NUMBER 009	REVISOR NUMBER 01	

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

The North Anna Units 1 and 2 TS Surveillance 4.3.3.6 require that each PORV accident monitoring instrumentation channel shall be demonstrated operable by performance of channel calibrations at least once per eighteen months as shown in Table 4.3-7. Technical Specification Surveillance 4.4.3.2.1 requires that each PORV shall be demonstrated operable at least once per 18 months by performance of a channel calibration. The channel calibration is required to encompass the entire channel including the sensor and alarm and/or trip functions. Since the periodic test procedures which govern PORV stroking did not include adequate instructions to document alarm actuation this event is reportable pursuant to 10 CFR 50.73 (a) (2) (i) (B) as a missed surveillance.

2.0 Significant Safety Consequences and Implications

The RM channels ensure that radiation levels are continuously measured and automatic actuations are initiated if radiation trip level setpoints are exceeded. The CP/E isolation system ensures that the containment vent and purge penetrations will be automatically isolated upon detection of high radiation levels within the containment. The operability of this system restricts the release of radioactive material from the containment atmosphere to the environment. This event posed no significant safety implications because subsequent testing of the CP/E channels demonstrated that all circuitry was capable of performing its intended function.

Although the surveillance test procedures for the PORVs did not include verification of the associated alarm, additional indications were available to alert Control Room personnel to the actuation of a PORV. These include low pressurizer pressure indication/alarm, backup heater operation, increasing level, temperature, and pressure in the pressurizer relief tank, high temperatures downstream of the PORVs and open indication from the PORV position indicator lights. This event posed no significant safety implications because although subsequent testing demonstrated that the associated alarm actuated as required, the alarm is not required for the Pressurizer PORVs to perform their design functions.

Therefore, the health and safety of the general public were not affected at any time due to these events.

3.0 Cause of the Event

The cause of the events is personnel error resulting in failure to develop appropriate procedures to satisfy the surveillance requirements.

4.0 Immediate Corrective Actions

The Operations Shift Supervisor was immediately notified that a portion of the CP/E circuitry had not been tested, and the appropriate Action Statement of TS 3.6.3.1 was entered for Unit 1. Therefore, each affected penetration was verified isolated by use of at least one deactivated automatic valve secured in the isolation position. Unit 2 was in mode 5 when the missed surveillances were discovered, and these LCOs were not applicable.

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FACILITY NAME (1) North Anna Power Station Units 1 and 2	DOCKET NUMBER (2) 0500033892	LER NUMBER (6)			PAGE (3) 04 OF 04
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	

TEXT (if more space is required, use additional NRC Form 368A's) (17)

On May 21, 1992 Units 1 and 2 entered the twenty-four hour action statement of TS 4.0.3 to allow performance of the alarm actuation test. Periodic test procedures governing the channel calibration of the PORV position indications were provisionally revised to test the PORV alarm actuations. Units 1 and 2 Pressurizer PORV alarm actuation verifications were performed satisfactorily and the action statements were cleared on May 22, 1992.

5.0 Additional Corrective Actions

CP/E isolation tests (PT-91.1) were revised to test the entire circuitry and the tests were successfully performed on both units.

The PORV alarm actuation verification instructions have been incorporated into the controlling periodic test procedures.

6.0 Actions to Prevent Recurrence

In accordance with the Action Plan of LER 50-338,339/92-007-00 an additional review of other complex instrumentation/electrical surveillance requirements is being performed to verify TS surveillance requirements are fully met.

7.0 Similar Events

LER 50-338,339/90-009-03 described an event where full response time testing of the Source Range Neutron Flux Reactor Trip preamplifiers, the Power Range Neutron Detector isolation amplifiers and the Overtemperature Delta Temperature Reactor Trip lag and lead/lag cards was not performed due to incorrect TS interpretation.

LER 50-339/91-001-00 documents an event where a set of contacts and associated wiring on the control room bench board switch for the Train A power operated relief valve (PORV) over pressure control circuitry had not been tested as required by TS surveillance requirement 4.4.3.2.1.b. The cause of the event was the incorrect interpretation of TS 4.4.3.2.1.b. Previous interpretations did not require testing of the contacts and associated wiring for the PORV control circuitry.

LER 50-338,339/92-007-00 documents missed surveillances of RCP bus undervoltage/underfrequency circuitry and SI input to reactor trip.

8.0 Additional Information

None.