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VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION
P. O. BOX 402
MINERAL, VIRGINIA 22117

10 CFR 50.73

July 16, 1992

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

Serial No. N-92-23
NAPS:MPW
Docket Nos. 50-339
License Nos. 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. 50-339/92-015-00

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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PDR ADOCK 05000339
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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-830), 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 2		DOCKET NUMBER (2) 05000339	PAGE (3) 1 OF 03
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TITLE (4) MISSED SURVEILLANCE ON THE H2 ANAL SYS TROUBLE OR HI HYDRGEN ANNUNCIATOR ALARM DUE TO INCORRECT RELAY CONFIGURATION

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 NUMBERS
06	21	92	92	015	00	07	16	92		05000339

OPERATING MODE (9) 2

POWER LEVEL (10) 100

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

20.402(b)	20.405(i)	50.73(a)(2)(v)	73.71(b)
20.405(a)(1)(i)	50.73(a)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.73(a)(2)	50.73(a)(2)(vi)	OTHER (Specify in Section 1600 and in Tab. NRC Form 364A)
20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	50.73(a)(2)(vi)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vi)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(i)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: G. E. Kane, Station Manager

TELEPHONE NUMBER: 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 fifteen single-space typewriter lines) (16)

On June 21, 1992, with Units 1 and 2 in Mode 1, the Hi Hydrogen main control room annunciator for containment analyzer 2-HC-H2A-201-1 was discovered inoperable during the performance of the channel calibration. Further investigation determined that relay CR-1 in the local panel was incorrectly wired, thus blocking actuation of the control room annunciator on a high hydrogen signal. Since the channel calibration did not encompass the alarm, Technical Specification surveillance requirement 4.6.4.1 was not satisfied. It was noted that the local and remote analyzer hi hydrogen lights did illuminate during the channel calibration. Subsequently the relay was correctly wired and the channel calibration test results verified that the main control room annunciator actuated as required. This event is reportable pursuant to 10 CFR 50.73 (a) (2) (i) (B).

The cause of the event is personnel error resulting in a wiring configuration that was not in accordance with approved vendor manual drawings. Additionally, the testing procedure did not contain a step to have the "trouble" signal reset for the common H₂ ANAL SYS TROUBLE OR HI HYDROGEN main control room annunciator that actuates following operation of the analyzer control switch.

This event posed no significant safety implications since other indications of hydrogen concentrations are available to the control room operator. Therefore, the health and safety of the public were not affected at any time.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COM
COLLECTION REQUEST: 50.0 HRS. FORWARD CO
ESTIMATE TO THE RECORDS AND REPORTS MANA
NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE
PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND
BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) North Anna Power Station Unit 2	DOCKET NUMBER (2) 0800033992	LER NUMBER (6)				PAGE (3) 02 OF 13
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT (if more space is required, use additional NRC Form 306A's (17))

1.0 Description of the Event

On June 21, 1992, with Units 1 and 2 in Mode 1, the Hi Hydrogen main control room annunciator (EIIIS Component Identifier ANN) for containment analyzer 2-HC-H2A-20 (EIIIS System Identifier IP, EIIIS Component Identifier AA) was discovered inoperable during the performance of the channel calibration. Further investigation determined that relay CR-1 (EIIIS Component Identifier RLY) in the local panel (EIIIS Component Identifier PL) was incorrectly wired, thus blocking actuation of the control room annunciator on a high hydrogen signal. Since the channel calibration did not encompass the alarm, Technical Specification surveillance requirement 4.6.4.1 was not satisfied. It was noted that the local and remote analyzer hi hydrogen lights did illuminate during the channel calibration. Subsequently the relay was correctly wired and the channel calibration test results verified that the main control room annunciator actuated as required. This event is reportable pursuant to 10 CFR 50.73 (a) (2) (i) (B).

On June 19, 1992 a 30 day action statement was entered for the containment hydrogen analyzer to perform a channel calibration and to ensure the instrumentation performed within its specified accuracy. To calibrate the bistables the leads are lifted and a variable voltage source is connected. The voltage is varied until the indicator light, High H2, comes on at the local analyzer panel. The remote panel indicator light and the control room annunciator alarm are then verified to have energized. The voltage source is again varied until the local indicator light (EIIIS Component Identifier AI) goes off and the bistable trips and remote panel indicator light and the control room annunciator alarm are verified to have reset. On June 21, 1992 during the bistable calibration the control room annunciator was not received when the bistable was tripped. Investigation into the problem revealed that the wiring configuration to the relay was not in accordance with the approved vendor manual drawings. The as found configuration had the relay lead wired to an incorrectly configured contact. The contact, as configured, would close when the power switch at the post accident monitoring panel was in the standby or analyze position. This resulted in the alarm contact being defeated since the contacts are in parallel.

2.0 Significant Safety Consequences and Implications

This event posed no significant safety implications since other indications of high hydrogen concentrations are available to the control room operator. The hydrogen analyzers are placed in operation following a loss a coolant accident. The emergency procedures direct containment recombiner (EIIIS System Identifier IP, EIIIS Component Identifier RCB) operation without reliance on the analyzer HI HYDROGEN annunciator. The actual hydrogen concentrations are displayed on a meter at the Post Accident Monitoring Panel in the main control room. Therefore, the health and safety of the public were not affected at any time.

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-630), 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 2	DOCKET NUMBER (2) 0500033992	LER NUMBER (6)		PAGE (3)	
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			015	00	03 OF 03

TEXT (if more space is required, use additional NRC Form 306A's) (17)

3.0 Cause of the Event

The cause of the event is personnel error. Relay CR-1 was replaced during the seven year preventative maintenance function in August 1989. Verification of the relay configuration to that of the approved vendor manual drawings was inadequate. Also, the calibration procedure did not contain a step to have the trouble alarm reset for the H2 ANAL SYS TROUBLE OR HI HYDROGEN main control room annunciator that actuates following operation of the analyzer control switch. If the annunciator is actuated and no action is taken to reset the actuating signal, the annunciator is still illuminated prior to testing of the high hydrogen alarms. This creates the illusion that the HI HYDROGEN signal actuated the annunciator, since a reactivation of the alarm was not required by the testing procedure.

4.0 Immediate Corrective Actions

Relay CR-1 was correctly rewired in accordance with the approved drawings. The performance of a channel calibration test verified that the alarm actuated as required. The TS action for 2-MC-M2A-201-1 was cleared at 2133 hours on 05/21/92.

5.0 Additional Corrective Actions

The calibration procedure was revised to include a step to reset the trouble signal for the H2 ANAL SYS TROUBLE OR HI HYDROGEN main control room annunciator following actuation. The relay for the Unit 1 hydrogen analyzer was reviewed and calibration testing of the analyzer verified proper alarm annunciation.

The seven year preventative maintenance procedure was revised to include a note to verify that the contact configuration is correct for the relay prior to installation.

6.0 Actions to Prevent Recurrence

The event will be discussed with the personnel responsible for testing the hydrogen analyzer. The actions taken are sufficient to prevent recurrence.

7.0 Similar Events

Special Report, LER N1-85-009-00, during the performance of the Unit 1 Containment Mat Triaxial Response Spectrum Recorder Functional Test three alarms failed to actuate as required.

License Event Report, N1-85-009-01, identified that Pressurized Operating Relief Valve alarm actuation verification was not performed as required.

8.0 Additional Information

None.