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

10 CFR 50.73

February 10, 1993

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

NAPS:MPW
Docket No. 50-338
License No. NPF-4

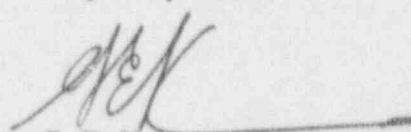
Dear Sirs:

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

Report No. 50-338/93-001-00

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

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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 20556, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) North Anna Power Station Unit 1										DOCKET NUMBER (2) 050003381				PAGE (3) 1 OF 4											
TITLE (4) PERSONNEL HATCH OUTER DOOR ESCAPE LOCK EQUALIZATION VALVE NOT FULLY CLOSED AS REQUIRED FOR CONTAINMENT INTEGRITY DURING CORE ALTERATIONS 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	1	1	7	9	3	9	3	0	0	1	0	2	1	0	9	3	0	5	0	0	0	0	0	0	0
OPERATING MODE (9) 6			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)													73.71(b)									
POWER LEVEL (10) 000			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(d)										
			20.406(a)(1)(i)				50.73(a)(2)(v)				<input checked="" type="checkbox"/> 50.73(a)(2)(vi)				OTHER (Specify in Abstract Section and in Text: NRC Form 305A)										
			20.406(a)(1)(ii)				50.73(a)(2)(vii)				50.73(a)(2)(viii)(A)														
			20.406(a)(1)(iii)				50.73(a)(2)(viii)(B)				50.73(a)(2)(viii)(C)														
			20.406(a)(1)(iv)				50.73(a)(2)(ix)				50.73(a)(2)(x)														
			20.406(a)(1)(v)				50.73(a)(2)(xi)																		
LICENSEE CONTACT FOR THIS LER (12)																									
NAME G. E. Kane										TELEPHONE NUMBER AREA CODE 703894-2101															
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)																EXPECTED SUBMISSION DATE (15)		MONTH		DAY		YEAR			
YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO																									
ABSTRACT (Limit to 1400 spaces, i.e., approximately 30 lines single-space typewritten text) (16)																									
<p>On January 17, 1993, at 2230 hours with Unit 1 in Mode 6 (refueling) the equalization valve for the personnel hatch outer door escape lock was discovered open during core alterations. This valve is required to be closed for containment integrity per Technical Specification 3.9.4.c.1 when the personnel hatch is used for access during core alterations. All operations involving core alterations were immediately suspended and the equalization valve was closed. A 4 hour report was made to the NRC at 0028 hours on January 18, 1993, pursuant to 10 CFR 50.72 (b) (2) (iii) (c). This event is reportable pursuant to 10CFR50.73 (a) (2) (v) (C).</p> <p>The cause of the event has been attributed to personnel error. Administrative controls in place to preclude the inadvertent operation of the personnel hatch emergency escape lock did not prevent the equalization valve from being opened.</p> <p>No significant safety consequences resulted from the event because any release of radioactivity from this event had a fuel handling accident occurred is bounded by previously calculated accident analysis assumptions. Therefore, the health and safety of the public were not affected at any time during this event.</p>																									

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-500), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20548, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

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North Anna Power Station Unit 1

YEAR

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NUMBER

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TEXT (If more space is required, use additional NRC Form 360A's (17))

1.0 Description of the Event

On January 17, 1993, at 2230 hours with Unit 1 in Mode 6 (refueling) the equalization valve (EIIS System Identifier JM, Component Identifier VTV) for the personnel hatch outer door escape lock (EIIS System Identifier JM, Component Identifier DR) was discovered open during core alterations. This valve is required to be closed for containment integrity per Technical Specification 3.9.4.c.1 when the personnel hatch is used for access during core alterations. All operations involving core alterations were immediately suspended and the equalization valve was closed. A 4 hour report was made to the NRC at 0028 hours on January 18, 1993, pursuant to 10 CFR 50.72 (b) (2) (iii) (c).

On January 17, 1993, at approximately 1400 hours, the inner personnel hatch door, including the emergency escape lock, was verified in the closed position by the refueling senior reactor operator prior to core alterations.

On January 17, 1993, at 2230 hours air was discovered blowing from the personnel hatch emergency escape outer door equalization valve by plant personnel when the inner door was opened. The refueling SRO was immediately notified and core alterations were suspended. The refueling SRO verified that the equalization valve was open and it was subsequently closed. The personnel hatch doors were being operated intermittently to allow personnel access into Unit 1 containment (EIIS System Identifier NH) while refueling was being performed. While the inner door was open a flow path existed from the auxiliary building (EIIS System Identifier NF) through the equalization valve into containment due to the negative pressure inside containment. Therefore, no release through this pathway to the environment occurred.

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

2.0 Significant Safety Consequences and Implications

Since the containment purge system (EIIS System Identifier VA) was drawing air into containment no release occurred. Additionally, no abnormal levels of radioactivity existed in containment at the time of the event. An assessment of this event against the assumptions and results of the Updated Final Safety Analysis Report (UFSAR) fuel handling accident analyses was performed. The assessment considered a postulated fuel handling accident for the period of this event. Considering both the reduced source term and limited potential for a release from containment, the potential thyroid dose consequences from the partial loss of containment integrity would be a factor of less than 1 percent than those shown in the UFSAR. No significant safety consequences resulted from the event because any release of radioactivity from this event, had a fuel handling accident occurred, is bounded by previously calculated accident analysis assumptions. Therefore, the health and safety of the public were not affected at any time during this event.

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 Unit 1	DOCKET NUMBER (2) 0150000333893	LER NUMBER (3)				PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

If XT (change space is required, use additional NRC Form 305A) (17)

3.0 Cause of the Event

The cause of the event has been attributed to personnel error. Administrative controls in place to preclude the inadvertent operation of the personnel hatch emergency escape lock did not prevent the equalization valve from being opened. A caution statement was previously stenciled on personnel hatch door above the emergency escape lock. The caution statement indicates that the operations shift supervisor must be contacted if the escape hatch handle is operated.

4.0 Immediate Corrective Actions

All operations involving core alterations were immediately suspended. The equalization valve was closed. Special Order blue tags were installed on all four equalizing valve handles to prevent operation of the escape handle without shift supervisor permission. Personnel responsible for hatch operation during this event were sensitized on the use of the emergency escape lock and the consequences surrounding the opening of the equalization valve after containment integrity has been established.

5.0 Additional Corrective Actions

Periodic Test procedure 1-PT-91, Containment Penetrations and Operations procedure 1-OP-4.1, Controlling Procedure for Refueling, were revised to strengthen verification requirements concerning closure of the personnel hatch as part of the establishment of containment integrity. The procedures were approved for use on January 18, 1993.

An Activity Guide, NSSCT-AG-1, titled Operate Personnel Air Lock (Atmospheric Conditions) has been developed and used to train personnel who operate the containment personnel hatch door.

6.0 Actions to Prevent Recurrence

Administrative controls were strengthened to prevent operation of the escape handle without shift supervisor permission.

A cross functional task team has been established to review containment integrity issues including vulnerabilities in maintaining integrity. Additionally, industry experiences in this area will also be examined for lessons learned. Recommendations resulting from the task team review will be implemented as necessary.

The corrective actions implemented as a result of the event will be implemented on Unit 2.

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)

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North Anna Power Station Unit 1

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7.0 Similar Events

Previous events concerning containment integrity were reported in the following LERs:

N2-87-010-00 On September 21, 1987 the personnel air lock doors (2) were discovered open during core alterations.

N1-91-005-00 On February 9, 1991 penetrations through the equipment hatch were discovered with inadequate isolation devices. No core alterations were occurring at the time of discovery.

8.0 Additional Information

Unit 2 was operating at 100 percent power, Mode 1, and was not affected by this event.