

# Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

P. O. BOX 402

MINERAL, VIRGINIA 22117

10 CFR 50.73

March 5, 1993

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

NAPS:MPW  
Docket No. 50-338  
50-339  
License No. NPF-4  
NPF-7

Dear Sirs:

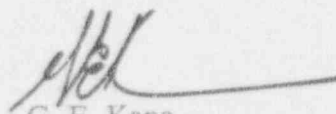
The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Units 1 & 2.

Report No. 50-338/93-004-00

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,

120036

  
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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*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-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 Units 1 & 2										DOCKET NUMBER (2) 050003381				PAGE (3) 1 OF 3												
TITLE (4) CONTAINMENT PARTICULATE AND GASEOUS RADIATION MONITORS INOPERABLE DUE TO NO CONTAINMENT AIR RECIRCULATING FANS OPERATING DURING CORE ALTERATIONS																										
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 North Anna Unit 2				DOCKET NUMBER(S) 05000339													
0	2	1	5	9	3	9	3	0	0	4	0	0	0	3	0	5	9	3	0	5	0	0	0	3	3	9
OPERATING MODE (9)		6		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																						
POWER LEVEL (10)		000		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)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 356A)																
				20.405(a)(1)(iii)		<input checked="" type="checkbox"/> 50.73(a)(2)(i)		50.73(a)(2)(vii)(A)																		
				20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)																		
				20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)																		
				20.405(a)(1)(vi)		50.73(a)(2)(iv)																				
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)																										
YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO		EXPECTED SUBMISSION DATE (15)														
												MONTH DAY YEAR														
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																										
<p>On February 12, 1993, at 1300 hours with Unit 1 defueled it was noted that the containment gaseous and particulate radiation monitors become inoperable when no containment air recirculating fans are operating. The monitors must be operable for the containment purge and exhaust isolation system to be operable when in Mode 6 during core alterations per Technical Specification (TS) 3.9.9. The monitors are also required by TS 3.4.6.1 in Modes 1 through 4. The radiation monitors, RM-RMS-159/160, continuously draw a sample from containment atmosphere via an isokinetic nozzle in the recirculating air ring duct. However, when no fans are operating a representative sample of containment air is not obtained. During the current refueling outage the fans were secured thereby rendering the radiation monitors inoperable. This event is reportable pursuant to 10CFR50.73 (a)(2)(i)(B).</p> <p>The cause of the event is an inadequate initial review of the containment gaseous and particulate radiation monitor operating conditions which failed to identify that at least one containment air recirculating fan must be in operation to support the operability requirements of RM-RMS-159/160.</p> <p>No significant safety consequences resulted from the event because additional containment radiation monitors were operable and available to detect increasing radiation levels. 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-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)

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North Anna Power Station Units 1 &amp; 2

YEAR

SEQUENTIAL  
NUMBERREVISION  
NUMBER

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

1.0 Description of the Event

On February 12, 1993, at 1300 hours with Unit 1 defueled it was noted that the containment gaseous and particulate radiation monitors (EIIS System Identifier IL, Component Identifier MON) become inoperable when no containment air recirculating fans (EIIS System Identifier BK, Component Identifier FAN) are operating. The monitors must be operable for the containment purge and exhaust isolation system (EIIS System Identifier IK) to be operable when in Mode 6 during core alterations per Technical Specification (TS) 3.9.9. The monitors are also required by TS 3.4.6.1 in Modes 1 through 4. The radiation monitors, RM-RMS-159/160, continuously draw a sample from containment atmosphere via an isokinetic nozzle (EIIS System Identifier BK, Component Identifier NZL) in the recirculating air ring duct (EIIS System Identifier BK, Component Identifier DUCT). However, when the fans are not operating a representative sample of containment air is not obtained. During the current refueling outage the fans were secured thereby rendering the radiation monitors inoperable. This event is reportable pursuant to 10CFR50.73 (a) (2) (i) (B).

During refueling, if airborne gaseous or particulate activity concentration exceeds a predetermined setpoint, a high-high activity alarm (EIIS System Identifier IL, Component Identifier RA) automatically trips the containment purge air supply and exhaust fans and shuts the purge system motor operated valves (MOV) (EIIS System Identifier IK, Component Identifier ISV), thus isolating the purge system. With the containment air recirculating fans secured during core alterations the gaseous and particulate radiation monitors ability to analyze a representative sample of containment air and automatically secure the purge system was essentially defeated.

2.0 Significant Safety Consequences and Implications

No significant safety consequences resulted from the event because additional containment radiation monitors were operable on the manipulator crane and on the operating deck. A Hi Hi signal from the manipulator crane radiation monitor (EIIS System Identifier IL, Component Identifier MON), RM-RMS-162, will also cause all containment purge supply and exhaust fans to stop and all supply and exhaust containment purge MOVs to close. Grab samples were routinely obtained from containment by the health physics technicians during core alterations. Additionally, no fuel handling event occurred that would have required containment purge isolation. 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 is an inadequate initial review of the containment gaseous and particulate radiation monitor operating conditions which failed to identify that the containment air recirculating fans must be in operation to support the operability requirements of RM-RMS-159/160. As a result, the controlling procedures did not contain adequate controls to ensure at least

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North Anna Power Station Units 1 &amp; 2

YEAR

SEQUENTIAL

REVISION

NUMBER

NUMBER

0 | 5 | 0 | 0 | 0 | 3 | 3 | 8 | 9 | 3 | - | 0 | 0 | 4 | - | 0 | 0 | 0 | 3 | OF | 0 | 3

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

3.0 Cause of the Event (continued)

one of the containment air recirculating fans is operating during core alterations.

4.0 Immediate Corrective Actions

Three Unit 2 containment air recirculating fans were verified operating. The action statement for 1-RM-RMS-159 & 160 was entered to ensure containment air recirculating fans are operating prior to commencing fuel onload.

5.0 Additional Corrective Actions

Operations Backboards Log, 1-LOG-6A, was changed to ensure one or more containment air recirculating fans are in operation, or declare the radiation monitors inoperable. Operations procedure OP-4.1, Controlling Procedure for Refueling, was changed to ensure the containment air recirculating fans are operating during mode 6.

6.0 Actions to Prevent Recurrence

Operations Department personnel will be made aware of the actions surrounding this event. The changes to Operations Backboards Log 1-LOG-6A and OP-4.1 are sufficient to prevent recurrence.

7.0 Similar Events

The condition identified in this LER is believed to have existed during past refueling outages on Units 1 & 2.

8.0 Additional Information

Unit 2 was operating at 100 percent power, Mode 1, and has a similar containment radiation monitoring system.