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

10 CFR 50.73

September 9, 1992

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

NAPS: JRP
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. 50-339/92-016-00

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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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 2	0 5 0 0 0 3 3 9	1 OF 0 4

TITLE (4) FAILURE TO RESET CONDENSER AIR EJECTOR RESET SWITCHES FOLLOWING SI CAUSES POTENTIAL UNMONITORED RELEASE PATH TO TURBINE BUILDING ATMOSPHERE 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 8	0 6	9 2	9 2	- 0 1 6	- 0 0	0 9	0 9	9 2		0 5 0 0 0
										DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9)	2	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	[X] 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)	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, Station Manager	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 August 13, 1992, with Unit 2 operating at 100 percent power, a condenser air ejector discharge containment isolation trip valve failed to stroke during the performance of a Valve Inservice Inspection Test. Subsequent investigation revealed that this was due to a failure to properly reset the air ejector divert capability following recovery from a Safety Injection (SI) that occurred on August 6, 1992. In this configuration, if a high-high radiation condition was detected on the air ejector radiation monitor, the discharge capability to containment would be inoperable. This would create an unmonitored release path to the Turbine Building via the air ejector aftercondenser loop seals. This event is reportable pursuant to 10CFR50.73(a)(2)(v)(C). A four hour report was made to the NRC at 1555 hours on August 13, 1992, pursuant to 10CFR50.72(b)(2)(iii)(C).

The cause of the event was personnel error due to the failure to reset the air ejector divert capability.

No significant safety consequences resulted from this event since no High-High radiation alarm was received and the normal discharge was in-service and being monitored. Therefore, the health and safety of the public were not affected at any time during this event.

1.0 Description of the Event

On August 13, 1992, with Unit 2 operating at 100 percent power, condenser air ejector discharge containment isolation trip valve, (EIIS System Identifier SH, Component Identifier ISV), 2-SV-TV-202-1, failed to stroke during the performance of a Valve Inservice Inspection Test. Subsequent investigation revealed that this was due to a failure to properly reset the air ejector divert capability following recovery from a Safety Injection (SI) (LER 92-007-00) that occurred on August 6, 1992. In this configuration, since the phase A seal-in relay had not been reset, an opening defeat signal was still present in the control circuit for 2-SV-TV-202-1 and 2-SV-TV-203. This rendered the discharge capability to containment inoperable, preventing the containment isolation trip valves from opening if a high-high radiation condition was detected on the air ejector radiation monitor (EIIS System Identifier SH, Component Identifier MON), RM-221. This would create an unmonitored release path to the Turbine Building via the air ejector aftercondenser loop seals, when the atmosphere discharge valve, 2-SV-TV-202-2, closed on the high-high radiation condition and the air ejector containment isolation valves, 2-SV-TV-102-1 and 2-SV-TV-203, remained closed. Subsequently, the air ejector backpressure would increase and displace the aftercooler loop seal, thus creating the release path. See attached diagram. This event is reportable pursuant to 10 CFR50.73(a)(2)(v)(C). A four hour report was made to the NRC at 1555 hours on August 13, 1992, pursuant to 10CFR50.72(b)(2)(iii)(C).

In normal operation the air ejectors maintain a vacuum on the main condenser and discharge the non-condensable gases through the air ejector radiation monitor, RM-221 and into the atmosphere. If a high-high radiation condition is detected, 2-SV-TV-202-2 closes and the discharge path to the atmosphere is secured. The air ejector discharge is subsequently diverted to the containment through 2-SV-TV-202-1 and 2-SV-TV-203, which automatically open.

2.0 Significant Safety Consequences and Implications

No significant safety consequences resulted from this event since no High-High radiation alarm was received and the normal discharge was in-service and being monitored. In addition, the air ejector radiation monitor is surveilled by Shift Technical Advisors at four hour intervals in accordance with T.S. 3.4.6.3 and 3.4.6.4 (Primary and Secondary Leakage) and an air ejector grab sample is taken and analyzed by Health Physics personnel every 24 hours. 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 personnel error due to the failure to properly reset the air ejector divert capability. A contributing factor was the SI termination procedure which did not provide the specific actions required to reset the air ejector divert capability. The wording of the procedure could lead the operator to believe that as long as the 2-SV-TV-202-2 air ejector trip valve was found open, he could assume that the divert valves were reset, when, in actuality, the divert to containment is lost until the switches are reset.

4.0 Immediate Corrective Actions

After the two condenser air ejector divert to containment SI Reset Switches for each train were reset, the subject valves were re-stroked satisfactorily.

SI Termination Procedure, 1/2-ES-1.1, was revised by adding a detailed step to reset the phase A seal-in relays for the air ejector divert valves.

5.0 Additional Corrective Actions

Abnormal Procedures for the Unit 1/2 Radiation Monitoring System, 1/2-AP-5, and Steam Generator Tube Leak, 1/2-AP-24, will be reviewed to ensure that appropriate procedural guidance is given regarding resetting the subject SI reset switches.

This LER will be discussed in the next cycle of the Licensed Operator Re-training Program.

6.0 Actions to Prevent Recurrence

Actions taken are sufficient to prevent further recurrence of this event.

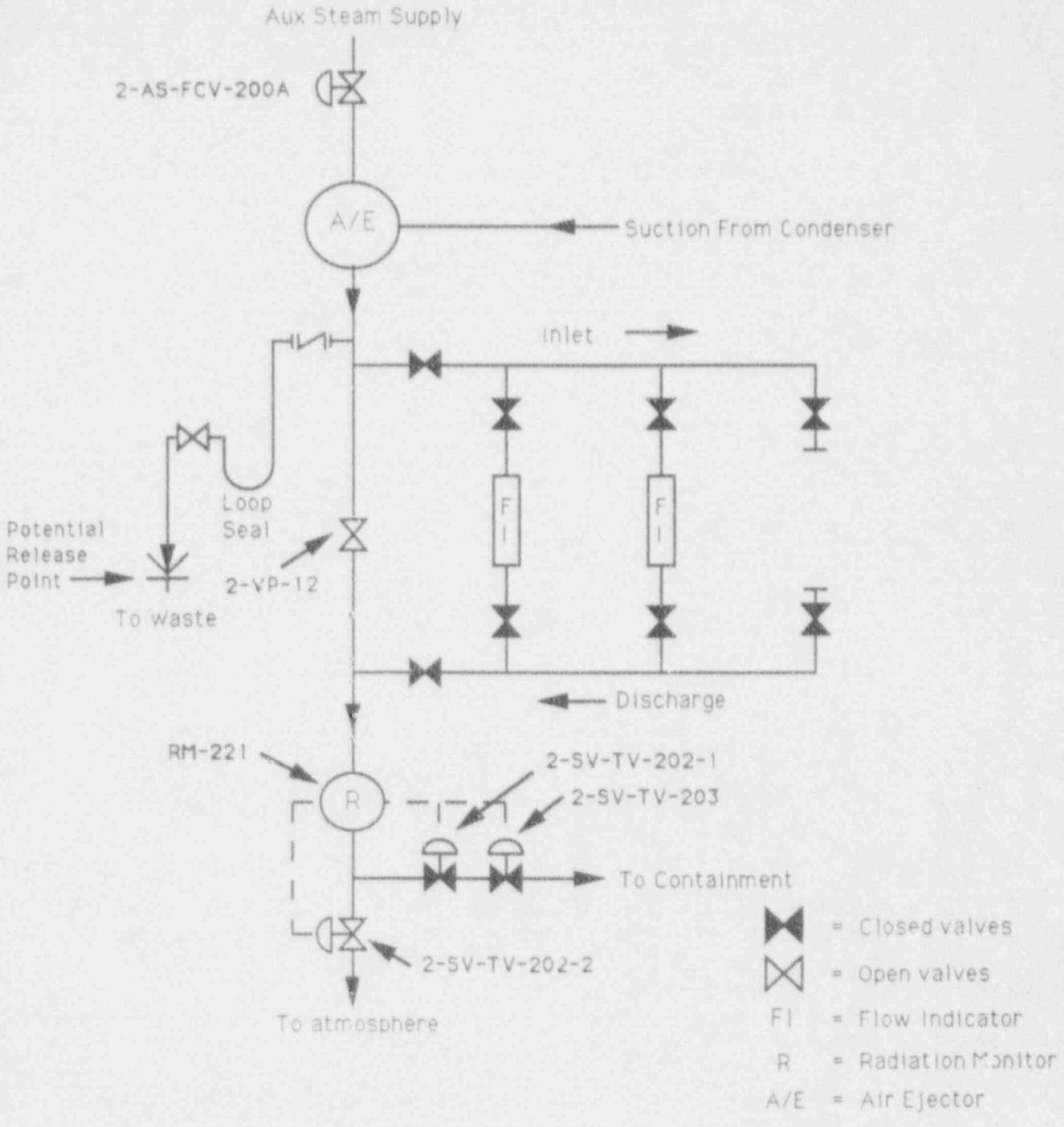
7.0 Similar Events

LER 91-010-00 issued October 31, 1991, documented an event in which both condenser air ejectors were aligned to flow to the Turbine Building atmosphere rather than through the installed radiation monitors and the automatic diversion of the air ejector flow to containment.

8.0 Additional Information

Unit 1 was operating at 90 percent power (Mode 1) throughout the event and was not affected.

TYPICAL AIR EJECTOR ARRANGEMENT



Note: Only 1 of the 2 Air Ejectors is shown for clarity