Virginia Electric and Power Company
Surry Power Station
P. O. Box 315
Surry, Virginia 23883

December 18, 1990

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

Serial No.: 90-781
Docket No.: 50-280
License No.: DPR-32

Gentlemen:

Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Unit 1.

REPORT NUMBER

90-016-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be reviewed by Corporate Nuclear Safety.

Very truly yours,

M. R. Kansler
Station Manager

Enclosure

cc: Regional Administrator
Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30323

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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 WTH 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)
Surry Power Station, Unit 1	0 5 0 0 0 2 8 0	1 OF 0 4

TITLE (4)
Type C Testing Results Exceeded 10CFR50 Appendix J Acceptance Criteria

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)
1 1	2 2	9 0	9 0	0 1 6	0 0	1 2	1 8	9 0		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 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)	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)	X 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
M. R. Kansler, Station Manager	AREA CODE 8 0 4 3 5 7 - 3 1 8 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	
X	J M	V	A 1 8 0								

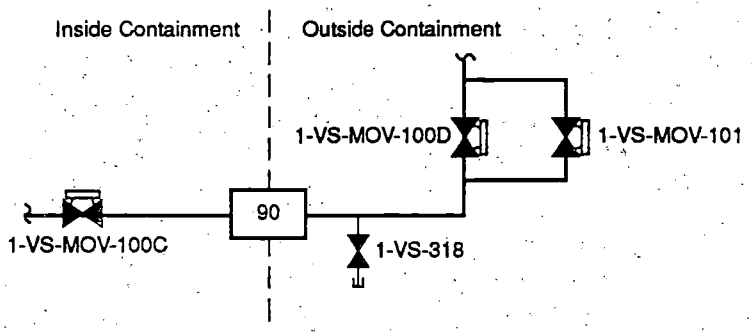
SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On November 22, 1990, with Unit 1 in cold shutdown for refueling, it was determined that Type C leakage testing results exceeded the maximum allowable values specified by 10CFR50 Appendix J. The highest pathway leakage was >1382 SCFH which exceeded the Local Leak Rate Testing (LLRT) acceptance criteria of 180 SCFH (.6La), and the minimum pathway leakage was >375 SCFH which exceeded the Integrated Leak Rate Testing (ILRT) acceptance criteria of 300 SCFH (La). Due to the testing methodology employed, the Containment Purge Exhaust Penetration was assigned a minimum pathway leakage > 300 SCFH which was primarily responsible for the ILRT acceptance criteria being exceeded. The valves in this penetration (1-VS-MOV-100C, 1-VS-MOV-100D and 1-VS-MOV-101) had been locked shut with their breakers open since the last as-left test results of 13 SCFH were obtained. Because the containment was maintained subatmospheric with insignificant running time on the vacuum pumps and the valves had not been cycled since the previous as-left testing, it is believed that containment leakage did not exceed Technical Specification requirements during the previous operating period. Following valve repairs and as-left testing for Unit 1, the highest leakage pathway was 21.278 SCFH and the minimum pathway leakage was 0.762 SCFH.

1.0 DESCRIPTION OF EVENT

On November 22, 1990, with Unit 1 in cold shutdown for refueling, it was determined that Type C leakage testing results exceeded the maximum allowable values specified by 10CFR50 Appendix J. The highest pathway leakage was >1382 SCFH which exceeded the Local Leak Rate Testing (LLRT) acceptance criteria of 180 SCFH (.6La), and the minimum pathway leakage was >375 SCFH which exceeded the Integrated Leak Rate Testing (ILRT) acceptance criteria of 300 SCFH (La). Due to the testing methodology employed, the Containment Purge Exhaust Penetration was assigned a minimum pathway leakage > 300 SCFH which was primarily responsible for the ILRT acceptance criteria being exceeded.



The penetration valves {EIIS-V} had been cycled per procedure, prior to as-found testing, and determined to have an as-found leakage in excess of 300 SCFH. Local evaluation at the valves initially attributed this leakage to 1-VS-MOV-101 and a work request was initiated to repair 1-VS-MOV-101. An as-found minimum leakage pathway was not determined prior to initiating purge. Later in the outage after purge was secured and repairs initiated on 1-VS-MOV-101, additional testing on 1-VS-MOV-100C indicated leakage > 300 SCFH. Because an actual as-found minimum pathway leakage had not been determined, a minimum pathway leakage of > 300 SCFH was assigned to the penetration. This event is being reported pursuant to 10CFR50.73(a)(2)(i)(B) based upon the potential for having exceeded Technical Specification allowed containment leakage.

2.0 SAFETY CONSEQUENCES AND IMPLICATIONS

Containment Purge Exhaust valves provide purge exhaust from containment. These valves are locked shut and de-energized when the unit is above cold shutdown in order to provide containment integrity. The valves in this penetration had been in this condition since the last as-left test results of 13 SCFH were obtained. Because the valves in this penetration were not cycled until after Unit 1 reached cold shutdown, it is believed that containment leakage did not exceed Technical Specification requirements during the previous operating period. This conclusion is further supported by the fact that the containment vacuum pumps ran an insignificant amount during the operating cycle (LER S1-90-002-00). An actual minimum pathway leakage > 300 SCFH into a subatmospheric containment would have significantly increased the running time of the containment vacuum pumps. Therefore, the health and safety of the public were not affected.

3.0 CAUSE OF THE EVENT

It is believed that cycling the valves prior to testing, after the valves had been closed for an extended period of time, damaged their elastomer seats. Thus the recorded as-found leakage results were higher than acceptable.

4.0 IMMEDIATE CORRECTIVE ACTIONS

Upon initial determination that the penetration exceeded the allowable leakage rate, a work request was initiated to repair 1-VS-MOV-101.

5.0 ADDITIONAL CORRECTIVE ACTIONS

Valves which exceeded acceptance criteria were repaired including 1-VS-MOV-100C and 1-VS-MOV-101 and retested satisfactorily. Following the completion of as-left testing for Unit 1, the highest leakage pathway results were 21.278 SCFH and the minimum pathway leakage results were 0.762 SCFH.

6.0 ACTIONS TAKEN TO PREVENT RECURRENCE

The procedures which perform Local Leak Rate Testing will be changed to perform as-found testing and determine minimum pathway leakage for certain penetrations prior to cycling penetration valves.

7.0 SIMILAR EVENTS

LER 2-89-014-00: Leakage Through Containment Purge Valves Exceeded Maximum Allowable.

LER 2-88-002-00: Inoperable Containment Isolation Valves Due To Excessive Leakage.

LER 2-86-014-00: Excessive Containment Sump Trip Valve Leakage.

8.0 EQUIPMENT MANUFACTURER/MODEL NUMBER

Allis Chalmers Corporation/50-HFR