

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) NORTH ANNA POWER STATION										DOCKET NUMBER (2) 0 5 0 0 0 3 3 8				PAGE (3) 1 OF 0 3		
TITLE (4) MISSED SURVEILLANCES - VALVE INSERVICE TESTING PROGRAM																
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	2 8	8 5	8 5	0 0 2	0 0 0	2 2	7 8	5	NORTH ANNA UNIT 2				0 5 0 0 0 3 3 9			
OPERATING MODE (9) 1			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)				20.406(e)				50.73(a)(2)(iv)				73.71(b)	
			20.406(a)(1)(i)				50.36(e)(1)				50.73(a)(2)(v)				73.71(e)	
			20.406(a)(1)(ii)				50.36(e)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 368A)	
			20.406(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)					
			20.406(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)					
			20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)					
LICENSEE CONTACT FOR THIS LER (12)																
NAME E. WAYNE HARRELL										TELEPHONE NUMBER 7 10 1 3 8 9 1 4 1 5 1 1 5 1 1						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS						
X	BIB	IVI	N 4 1 2 1 5	Y												
L	BIE	IVI	V 10 1 8 1 5	Y												
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)

## ABSTRACT

On January 28, 1985, engineering personnel discovered that eight check valves in the post accident hydrogen removal system that is common to both units, had not been tested as required by the station valve inservice testing program. Four of these check valves, hydrogen analyzer discharge check valves, were in a system that is required by T.S. 3.6.4.1. These four hydrogen analyzer check valves were tested with satisfactory results on February 12, 1985. Of the remaining four check valves, one was found stuck in the open position when tested on February 15, 1985.

As a result of this incident, a review of the station valve inservice testing program was initiated and six additional Unit 1 valves that had not been tested in accordance with the station valve inservice testing program were identified. Subsequent testing determined that one valve in the recirculation spray system was inoperable. Maintenance was performed on this valve and it was returned to operable status.

The failure to test valves in accordance with the station valve inservice testing program has been classified as a loss of administrative control in that the provisions of Technical Specification 6.8.1 have not been followed. Technical Specification 6.8.1 requires the licensee to establish, implement, and maintain written procedures for surveillance and test activities of safety-related equipment. This event is reportable pursuant to 10CFR50.73 (a)(2)(i)(B).

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)  NORTH ANNA POWER STATION	DOCKET NUMBER (2)  0 5 0 0 0 3 3 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	— 0 0 2	— 0 0	0	2	OF 0 3

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

On January 28, 1985, with Unit 1 and Unit 2 operating at 100% power, engineering personnel discovered that eight check valves in the post accident hydrogen removal system (EIIIS system identifier BB) were not being tested as required by the station valve inservice testing program. These check valves were not tested because procedures had not yet been developed and implemented to perform the surveillances required by the station valve inservice testing program. The valves were: 1-HC-62, 63 and 2-HC-68, 69, hydrogen analyzer discharge check valves, 1-HC-5 and 2-HC-7, containment atmosphere purge blower discharge check valves, and 1-HC-64 and 2-HC-70, containment air sample panel discharge check valves. The hydrogen analyzers are required by T.S. 3.6.4.1. The hydrogen analyzer discharge check valves were tested with satisfactory results on February 12, 1985. The remaining check valves were tested on February 15, 1985. 2-HC-70, one half inch Nupro (EIIIS vendor reference No. N425) check valve, was found stuck in the open position. This stuck open check valve would not have prevented the containment air sample panel from performing its function. A valve to replace 2-HC-70 has been ordered.

As a result of this incident, a review of the station valve inservice testing program was initiated. On February 15, 1985, six additional Unit 1 valves that had not been tested in accordance with the station valve inservice testing program were identified. These valves had not been stroke time tested every three months as required by the station valve inservice testing program. These valves were not stroke time tested at the correct frequency because procedures had not yet been updated to incorporate revised testing frequency requirements. These valves were: MOV-RS-155A,B, outside recirculation spray pump suction valves (EIIIS system identifier BE), MOV-RS-156A,B, outside recirculation spray pump discharge valves, and MOV-SI-1890C,D, low head safety injection pump discharge valves to the RCS cold legs (EIIIS system identifier BQ). All of these valves are maintained in the open position during power operation and are required to be open immediately following an accident. MOV-RS-155A, B and MOV-RS-156A, B had been cycled on a three month frequency during outside recirculation spray pump testing; however, valve stroke times were not measured on a three month frequency as required by the station valve inservice testing program.

Testing of the Unit 1 recirculation spray and safety injection valves was performed between February 15, 1985 and February 18, 1985. Testing of MOV-RS-155A, twelve inch Velan (EIIIS vendor reference No. V085) gate valve, resulted in this valve "sticking" in the three quarters open position and subsequently being declared inoperable. The remaining valves were tested with satisfactory results. Maintenance personnel found that deposits between the threads of the valve yoke nut and valve stem had caused the valve to "stick". This valve is underwater a significant amount of time, and it appears dissolved impurities in the water solidified on the valve stem in the valve yoke nut area. The problem of ground water infiltrating the valve pit that contains these valves is being addressed. The originally installed valve pit sump pumps are inadequate and can not be maintained in an operable status. An improved dewatering system design has been requested from the Engineering and Construction Department. In

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

the interim, temporary sump pumps are being used to pump the sump down, but the water level often rises above the valves. The valve stem and yoke nut of MOV-RS-155A were cleaned and lubricated and the valve returned to operable status on February 17, 1985. The stems of the other motor operated valves in the Unit 1 valve pit sump were cleaned and lubricated. The outside recirculation spray pump suction valves on Unit 2 (MOV-RS-255A,B) are also subject to submergence. These valves were tested in accordance with the valve inservice testing program in mid February 1985 with satisfactory results. The motor operators for the valves are located approximately 60 feet above the valves and are connected to the valves with long shafts. The motor operators are not subject to the wet conditions in the valve pit sump.

MOV-RS-155A, B and MOV-RS-255A, B had been replaced during the 1984 refueling outages. The Unit 1 refueling outage was during the summer and the Unit 2 outage was during the fall of 1984. A review of the maintenance histories of these valves from the time they were replaced revealed several failures which appear to be similar in nature to the failure of MOV-RS-155A on February 15, 1985. Three failures, including the failure of MOV-RS-155A on February 15, 1985, have occurred on Unit 1 and one failure has occurred on Unit 2. Further investigation and evaluation is being performed to provide recommendations which will ensure the reliability of these valves.

The failure to test valves in accordance with the revised inservice valve testing program (approved by the NRC in April 1984) was a result of inadequate resources applied to and supervision of the program. Additional resources are being assigned to inservice testing and a dedicated supervisor will be appointed, effective March 1, 1985. An initial review has been made of the inservice testing program to determine if all NRC requirements and commitments are being met. A more comprehensive review will be performed. This incident has been classified as a loss of administrative control in that the provisions of Technical Specification 6.8.1 have not been followed. Technical Specification 6.8.1 requires the licensee to establish, implement, and maintain written procedures for surveillance and test activities of safety-related equipment. This event is reportable pursuant to 10CFR50.73(a)(2)(1)(B).

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

FEBRUARY 27, 1985



U. S. Nuclear Regulatory Commission  
Document Control Desk  
016 Phillips Building  
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50-339

License No. NPF-4  
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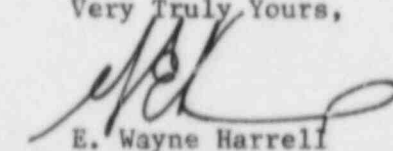
Dear Sirs:

The Virginia Power Company hereby submits the following License Event Report applicable to North Anna Units No. 1 and 2.

Report No. LER 85-002-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to Safety Evaluation and Control for their review.

Very Truly Yours,



E. Wayne Harrell  
Station Manager

Enclosures (3 copies)

cc: Dr. J. Nelson Grace, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 2900  
Atlanta, Georgia 30303

IE22  
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