NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
NORTH ANNA POWER STATION, UNIT 1	0 5 0 0 0 3 3 8	1 OF 0 2

TITLE (4)

DIESEL DRIVEN FIRE PUMP OUT OF SERVICE GREATER THAN SEVEN DAYS

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 7	8 7	8 7	— 0 0 1	— 0 0	0 2	1 9	8 7	NORTH ANNA, UNIT 2	0 5 0 0 0 3 3 9
										0 5 0 0 0

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)	20.405(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)	X 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)	SPECIAL REPORT
		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
E. WAYNE HARRELL, STATION MANAGER	AREA CODE 7 0 3 8 9 4 - 5 1 5 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)		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 January 27, 1987, at 0553 hours with Units 1 and 2 at 100 percent power, the Diesel Driven Fire Pump exceeded the seven day period allowable for it to be out of service, as specified by Technical Specification 3.7.14.1. The Fire Pump had been removed from service, seven days earlier on January 20, 1987, at 0553 hours for scheduled maintenance. Efforts were being expended to return the Fire Pump back to service within the seven days, however delays were encountered due to the inclement weather which moved into the area on January 21, 1987, coupled with the extent of the repairs. Additional delays were encountered when further repair efforts became necessary and difficulties were met in the testing procedure. The Diesel Driven Fire Pump was returned to service on February 13, 1987, at 1943 hours. This event is reportable as a Special Report pursuant to Technical Specification 3.7.14.1 and 6.9.2.

During the maintenance on the Diesel Driven Fire Pump, the Motor Driven Fire Pump remained operable. In accordance with Technical Specification 3.7.14.1, an additional water source was available via the cross connection to the Warehouse Five Motor and Diesel Driven Fire Pumps.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
NORTH ANNA POWER STATION, UNIT 1	0 5 0 0 0 3 3 8	8 7	— 0 0 1	— 0 0	0 2 OF 0 2

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

On January 27, 1987, at 0553 hours with Units 1 and 2 at 100 percent power, the Diesel Driven Fire Pump (EIIS System Identifier KP, Component Identifier P) exceeded the seven day period allowable for it to be out of service, as specified by Technical Specification 3.7.14.1. The Fire Pump had been removed from service, seven days earlier on January 20, 1987, at 0553 hours for scheduled maintenance, which included replacement of the diesel driver and a total pump overhaul. Efforts were being expended to return the Fire Pump back to service within the seven days, however delays were encountered due to the inclement weather which moved into the area on January 21, 1987, coupled with the extent of the repairs. Additional delays were encountered when further repair efforts became necessary and difficulties were met in the testing procedure. The Fire Pump was returned to service on February 13, 1987, at 1943 hours. This event is reportable as a Special Report pursuant to Technical Specification 3.7.14.1 and 6.9.2.

On January 29, 1987, during a maintenance test run, the second stage impeller slipped from the shaft. Upon disassembly of the Fire Pump, it was discovered that the replacement impellers were larger than the original impellers. The larger impellers had been ordered in 1980 as spare parts for either the electric Motor Driven Pump or the Diesel Driven Pump. This was incorrect. Although the two pumps are the same make and model and the impeller part numbers are identical, the actual impeller dimensions for each pump are different. Now, the impellers for each pump are listed under separate stock numbers with notes as to their dimensions. The installation of the larger impellers resulted in a larger axial thrust applied against them, forcing the second stage impeller to slip from the shaft. Correctly dimensioned impellers were subsequently ordered and installed.

Difficulties in obtaining accurate pressure and flow readings during the head curve test further extended the out of service period. The flow meter usually used in the test was not operating properly. An alternate method of obtaining accurate data was used, using a pressure cell which allowed the differential pressure to be directly measured across the orifice and the flow calculated from that data. After apparent electrical problems with the coolant heater were addressed the operability tests were completed satisfactorily and the Diesel Driven Fire Pump was returned to service on February 13, 1987, at 1943 hours.

During the maintenance on the Diesel Driven Fire Pump, the Motor Driven Fire Pump remained operable. In accordance with Technical Specification 3.7.14.1, an additional water source was available via the cross connection to the Warehouse Five Motor and Diesel Driven Fire Pumps.

Vepco

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

February 19, 1987

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

Serial No. N-87-001
NO/JAZ: nih
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 and 2.

Report No. LER 87-001-00

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 30323

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