

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) NORTH ANNA POWER STATION, UNIT 1										DOCKET NUMBER (2) 0 5 0 0 0 3 3 8 1 OF 0 3				PAGE (3) 1 OF 0 3		
TITLE (4) MANUAL REACTOR TRIP, LOSS OF REACTOR COOLANT PUMP MOTOR COOLING																
EVENT DATE (5) MONTH DAY YEAR 1 0 2 4 8 5			LER NUMBER (6) YEAR SEQUENTIAL NUMBER REVISION NUMBER 8 5 - 0 1 9 - 0 0				REPORT DATE (7) MONTH DAY YEAR 1 1 2 0 8 5			OTHER FACILITIES INVOLVED (8) FACILITY NAMES DOCKET NUMBER(S) 0 5 0 0 0 0 0 0						
OPERATING MODE (9) 1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)														
POWER LEVEL (10) 0 8 7		20.402(b)				20.405(a)				X 80.73(a)(2)(iv)				73.71(b)		
		20.405(a)(1)(i)				80.36(e)(1)				80.73(a)(2)(v)				73.71(c)		
		20.405(a)(1)(ii)				80.36(e)(2)				80.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 306A)		
		20.405(a)(1)(iii)				80.73(a)(2)(ii)				80.73(a)(2)(viii)(A)						
		20.405(a)(1)(iv)				80.73(a)(2)(iii)				80.73(a)(2)(viii)(B)						
		20.405(a)(1)(v)				80.73(a)(2)(iii)				80.73(a)(2)(ix)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME E. WAYNE HARRELL										TELEPHONE NUMBER 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	MANUFAC TURER	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPDs						
X	V J M Q	I	R 1 1 6 5	N												
X	E D M C	C	K 1 1 8 2	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)

On October 24, 1985, at 0350 hours, a manual reactor trip, turbine trip was initiated on North Anna Unit 1 due to a loss of Reactor Coolant Pump motor cooling water flow and subsequent elevated motor bearing temperatures. The Reactor Coolant Pumps were secured at 0352 hours and the unit stabilized on natural circulation cooling at normal no load temperature and pressure. Plant parameters remained normal for a natural circulation condition during the event.

At 0352 hours a Notification of Unusual Event was declared due to the plant being in an unusual condition, this decision was at the discretion of the shift supervisor and not required by the emergency plan.

The cause of the loss of RCP cooling water was a fault on Battery room 1-III supply fan motor which subsequently caused bus bar failure on the "1J" bus motor control center, and closure of cooling water supply trip valves to the RCP's.

This event is reportable pursuant to 10CFR50.73 (a)(2)(iv).

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

On October 24, 1985, at 0350 hours, a manual Reactor Trip, Turbine Trip was initiated on North Anna Unit 1 at 87 percent power, due to a loss of Reactor Coolant Pump (RCP) motor cooling water flow and subsequent elevated motor bearing temperatures. The RCP's were secured at 0352 hours and the unit stabilized on natural circulation cooling at no load temperature and pressure. Plant parameters remained normal during the event for a natural circulation condition.

The loss of RCP motor cooling water resulted from the closure of the Component Cooling (EIIIS System Identifier CC) supply valves TV-CC-106A, B, C, upon the loss of Motor Control Center 1J1-1 (EIIIS System Identifier ED, Component Identifier MCC), 1-EP-MC-11, due to a fault on the bus. A sequence is listed below which describes events and actions taken prior to and subsequent to the Reactor Trip.

- 0330 hours - 480 volt A.C. Motor Control Center 1-EP-MC-11 supply breaker 14J-4 from 480 volt bus 1J opens due to a fault on the motor control center. Multiple equipment loss noted from the control room and a report from a security officer of smoke and loud noise in the emergency switchgear room. Operations and electrical personnel investigated and found breaker 1J1-1E4, supply breaker to 1-HV-F-57C, faulted and breaker cubicle charred. TV-CC-106A, B, and C closed causing loss of cooling water to the RCP motors. Bearing temperatures were put on computer trend for monitoring.
- 0345 hours - Unit rampdown initiated due to inability to restore MCC and cooling water to the RCP motors.
- 0350 hours - Reactor and Turbine manually tripped due to RCP motors upper radial bearings and thrust bearings exceeding procedural limit of 195F. Peak temperature monitored was 216°F.
- 0352 hours - All RCP's secured, natural circulation cooling established, plant stabilized at no load temperatures and pressure. Incore temperatures stable at 560-570F. Emergency Plan Notification of Unusual Event initiated by shift supervisor discretion due to the natural circulation condition and loss of electrical bus.
- 0515 hours - Received RM-VG-104, and 106 Vent Stack "A" and Auxiliary building Radiation Monitors Hi-Hi Radiation alarms. The Hi-Hi radiation alarms were caused by purging to the sample sink via letdown sampling lines to lower the Volume Control Tank level. Auxiliary Building exhaust switched to the through Iodine filter position and purging secured.
- 0519 hours - Jumper installed to reenergize TV-CC-106A to supply component cooling to "A" RCP. Component cooling flows normal to "A" RCP.
- 0545 hours - Auxiliary Building exhaust repositioned to bypass Iodine filters. 1-AP-5.2 terminated. Hi-Hi alarms clear.
- 0645 hours - Started "A" RCP, forced flow cooling re-established. All primary parameters normal. "A" RCP motor bearing temperatures normal.

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

0745 hours - Repair to 1-EP-MC-11, motor control center, complete. Bus bars on column E breakers replaced. Commenced reloading MCC.

0856 hours - All loads from 1-EP-MC-11 returned to normal except 1-HV-F-57C.

0902 hours - Secured from Notification of Unusual Event.

The event was caused by a fault in the 1-III, 125 volt D.C. battery room supply fan motor (EIS System Identifier VJ, Component Identifier MO), 1-HV-F-57C. The exact cause of failure could not be determined. The MCC bus bars were found degraded at area of lower insulator and the breaker 1J1-1E4 was found tripped. Independent testing of breaker, subsequent to the event, indicated the breaker functioning properly with respect to current and time to trip. Contacts were found burnt and pitted indicating opening under an overload condition. No further corrective actions are planned.

This event is reportable pursuant to 10CFR50.73(a)(2)(iv).



VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

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MINERAL, VIRGINIA 23117

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

Serial No. N-85-033
NO/CLF: kbs
Docket No. 50-338

License No. NPF-4

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following
Licensee Event Report applicable to North Anna Unit No. 1.

Report No. LER 85-019-00

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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