NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

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)

Reactor Trip/Turbine Trip-Power Supply Card Failure

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 5 0 0 0
1 1	2 5	8 4	8 4	0 2 1	0 0	1 2	2 0	8 4		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	1 0 0	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)	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
	AREA CODE
E. Wayne Harrell	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	
X	J B	R J X	W 1 2 0	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 November 25, 1984, at 0546, a Unit 1 reactor trip/turbine trip occurred from 100% power. The reactor trip resulted from a low level (less than 25% narrow range level) coincident with a steam flow/feed flow mismatch (steam flow greater than feed flow by 40% of full power flow) in "B" steam generator. This event was caused by failure of the controller power supply card for the "B" steam generator main feed regulating valve. The "B" steam generator main feed regulating valve closed when its controller power supply card failed. A turbine trip was initiated by the reactor trip. All three auxiliary feedwater pumps started in response to an automatic start signal from a low-low level (less than 18% narrow range level) in the "B" steam generator. Plant parameters and equipment responded normally. The unit was quickly stabilized at normal no load conditions. The card was replaced with an identical replacement and the main feed regulating valve was satisfactorily tested and declared operable. This event, actuation of the Reactor Protection System, is reportable pursuant to the requirements of 10CFR50.73(a)(2)(iv).

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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 4	— 0 2 1	— 0 0	0 2 OF 0 2

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

On November 25, 1984, at 0546, a Unit 1 reactor trip/turbine trip occurred from 100% power. An automatic reactor trip signal was generated in response to a "B" steam generator low level (less than 25% narrow range level) coincident with a "B" steam generator steam flow/feed flow mismatch (steam flow greater than feed flow by 40% of full power flow). An automatic turbine trip was initiated in response to the reactor trip. Following the trip, the plant was stabilized at normal no load conditions in a controlled, orderly manner. Plant systems operated normally.

The event was caused by the failure of the power supply card (EIIS Component Identifier RJX) to the controller (EIIS Component Identifier LC) for the Loop "B" main feedwater regulating valve (EIIS Component Identifier FCV). This caused the valve to go fully closed, shutting off feedwater flow to the "B" steam generator. The card is a Westinghouse (EIIS Manufacturer Identifier W120) 7300 series driver card, model number 2837A16G03.

All three auxiliary feedwater pumps (EIIS Component Identifier P) started automatically on a low-low level signal (less than 18% narrow range level) in "B" steam generator. As a result of the trip, pressurizer pressure fell to just below the reactor trip setpoint (1870 psig, rate sensitive) and quickly recovered. RCS temperature dropped to 545°F (547°F is the nominal no load value) and pressurizer level dropped to 15% (nominal no load level is 20%) before recovering. Plant parameters responded normally and were quickly stabilized at no-load conditions.

The card was replaced with an identical replacement and the main feed regulating valve was satisfactorily tested and declared operable. The reactor was returned to criticality at 1327 on November 25, 1984, and the unit was placed on line at 1801 on November 26, 1984. The trip was not a result of any other equipment failure; therefore, no other repairs or replacements were required prior to restart.

This type of failure of the controller power supply card is not a recurring problem; therefore, no additional analysis of the event is required. This event, actuation of the Reactor Protection System, is reportable pursuant to the requirements of 10CFR50.73(a)(2)(iv).

Vepco

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

December 20, 1984

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

Serial No. N-84-035
NO/PLB: bkp
Docket No. 50-338

License No. NPF-4

Dear Sirs:

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

Report No. LER 84-021-00

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

for

Enclosures (3 copies)

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

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