

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) NORTH ANNA POWER STATION, UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 3 3 8	PAGE (3) 1 OF 0 2
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TITLE (4)
INADVERTENT PARTIAL SOLID STATE PROTECTION SYSTEM ACTUATION

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)
06	04	87	78	012	000	07	02	87	NORTH ANNA UNIT 2		0 5 0 0 0 3 3 9
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)											

OPERATING MODE (9) 5	POWER LEVEL (10) 01010	20.402(b) 20.405(a)(1)(i) 20.405(a)(1)(iii) 20.405(a)(1)(iii) 20.405(a)(1)(iv) 20.405(a)(1)(iv)	20.405(c) 50.36(e)(1) 50.36(e)(2) 50.73(a)(2)(i) 50.73(a)(2)(ii) 50.73(a)(2)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/> 50.73(a)(2)(ix)	73.71(b) 73.71(c) OTHER (Specify in Abstract below and in Text, NRC Form 366A)
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LICENSEE CONTACT FOR THIS LER (12)

NAME E. WAYNE HARRELL, STATION MANAGER	TELEPHONE NUMBER 7 0 3 8 9 4 1 - 5 1 1 5 1
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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
				N					

SUPPLEMENTAL REPORT EXPECTED (14) <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On June 4, 1987 at 0930 hours with Unit 1 in Mode 5, and Unit 2 in Mode 1, a partial automatic (Train B) Solid State Protection System (SSPS) actuation occurred on Unit 1 when a Safety Injection Slave Relay (K602) was energized during the performance of a Reactor Protection and Engineered Safety Features Response Time Test (Periodic Test 36.5). No plant condition existed which warranted the actuation. The root cause of the inadvertent partial SSPS (Train B) actuation was procedure inadequacy. This event is reportable pursuant to 10CFR50.73(a)(2)(iv).

The procedure for Periodic Test 36.5 will be revised.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
NORTH ANNA POWER STATION, UNIT 1	0500338	87	012	00	02	OF 02

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

On June 4, 1987 at 0930 hours with Unit 1 in Mode 5, and Unit 2 in Mode 1, a partial automatic (Train B) Solid State Protection System (SSPS) (EIIS System Identifier JE) actuation occurred on Unit 1 when a Safety Injection Slave Relay (K602) (EIIS Component Identifier RLY) was energized during the performance of a Reactor Protection and Engineered Safety Features Response Time Test (Periodic Test 36.5). No plant condition existed which warranted the actuation. This event is reportable pursuant to 10CFR50.73(a)(2)(iv).

Periodic Test 36.5 is performed in order to check response times between initiation of slave relay actuation and associated contact change of state. The K602 slave relay is associated with the automatic start logic of both the Unit 1 'J' Emergency Diesel Generator (EDG) and the Unit 2 Service Water Pump (2-SW-P-1B).

Prior to performing Periodic Test 36.5, Instrument and Calibration personnel used a multimeter to measure the potential across the Unit 1 'J' EDG and 2-SW-P-1B relay contacts. This step is not specified by the procedure but was performed to ensure inadvertent actuations would not occur. Additionally, the potential was measured from the contacts to ground. In each case there was zero AC and DC potential. When the test circuit was installed and timing begun, the K602 slave relay energized, closing both sets of contacts and generating an inadvertent partial Train 'B' SSPS actuation. The signal was generated due to the relay circuits actually being energized instead of de-energized as the multimeter measurements had indicated. The multimeter was subsequently found to be faulty.

When the partial Train 'B' SSPS actuation occurred, the Unit 1 'J' EDG and 2-SW-P-1B were started. Testing was discontinued. The Unit 1 'J' EDG was secured at 0942 hours and the 2-SW-P-1B was secured at 1000 hours on June 4, 1987.

The root cause of the inadvertent partial Train 'B' actuation was procedure inadequacy. The list of equipment associated with the relay was incomplete. Additionally, use of outdated reference drawings mislead test personnel as to what components would actuate. The malfunctioning multimeter, although its use was not required by the procedure, also contributed to the event. Test personnel had relied upon this meter to provide an independent indication of potential equipment actuation.

The procedure for Periodic Test 36.5 will be revised to include an updated list of reference drawings. Additionally, further changes to enhance the procedure are being developed.

Similar events involving the inadvertent actuation of the SSPS during testing have occurred at North Anna and are described in Unit 1 LER 86-107 and Unit 1 LER 84-002.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION
P. O. BOX 402
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July 2, 1987

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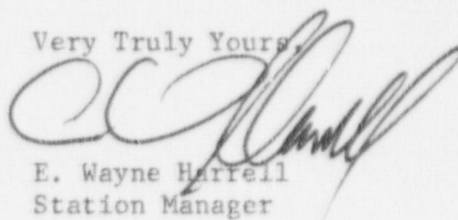
Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Unit 1.

Report No. LER 87-012-00

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
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