

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>SURRY POWER STATION, UNIT 2</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 2 8 1 1</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4)  
**PARTIAL ESF 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)																																																															
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) <b>N</b></td> <td colspan="6">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)</td> <td colspan="5"></td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) <b>1 0 0</b></td> <td>20.402(b)</td> <td>20.405(c)</td> <td><input checked="" type="checkbox"/></td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> <td colspan="6"></td> </tr> <tr> <td>20.405(a)(1)(i)</td> <td>50.38(c)(1)</td> <td><input type="checkbox"/></td> <td>50.73(a)(2)(v)</td> <td>73.71(c)</td> <td colspan="6"></td> </tr> <tr> <td>20.405(a)(1)(ii)</td> <td>50.38(c)(2)</td> <td><input type="checkbox"/></td> <td>50.73(a)(2)(vii)</td> <td colspan="6" rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td>20.405(a)(1)(iii)</td> <td>50.73(a)(2)(i)</td> <td><input type="checkbox"/></td> <td>50.73(a)(2)(viii)(A)</td> </tr> <tr> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(ii)</td> <td><input type="checkbox"/></td> <td>50.73(a)(2)(viii)(B)</td> </tr> <tr> <td>20.405(a)(1)(v)</td> <td>50.73(a)(2)(iii)</td> <td><input type="checkbox"/></td> <td>50.73(a)(2)(ix)</td> <td colspan="6"></td> </tr> </table>												OPERATING MODE (9) <b>N</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)											POWER LEVEL (10) <b>1 0 0</b>	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)							20.405(a)(1)(i)	50.38(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	73.71(c)							20.405(a)(1)(ii)	50.38(c)(2)	<input type="checkbox"/>	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)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	20.405(a)(1)(iv)	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	20.405(a)(1)(v)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(ix)						
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LICENSEE CONTACT FOR THIS LER (12)

NAME <b>R. F. SAUNDERS, STATION MANAGER</b>	TELEPHONE NUMBER AREA CODE: <b>8 0 4 3</b> NUMBER: <b>5 7 - 3 1 8 4</b>
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE)       NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

While replacing relay PRB-XB, an unexpected start of aux. feed pump 2-FW-P-3B occurred. It was discovered that one of the jumpers installed to prevent unnecessary relay actuation was positioned incorrectly. The jumpers were properly installed and the relay replaced.

Additional precautionary measures will be added to the relay replacement procedure to ensure that jumpers are correctly specified and placed.

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PDR ADCK 05000281  
S PDR

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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			
SURRY POWER STATION, UNIT 2	05000281	84	014	00	02	OF	03

TEXT (If more space is required, use additional NRC Form 365A's) (17)

1. Description of the Event

After an operator observed that the Power Range High Flux Low Setpoint Trip block permissive light was not lit, an investigation revealed that normally energized relay, PRB-XB, was deenergized. At 1644 hours on 8-21-84 with the unit at full power, as the first lead was lifted for the replacement of PRB-XB, the following occurred:

- Auxiliary Feed Pump 2-FW-P-3B started.
- TV-BD-100B, D, and F went closed.
- Both Source Range detectors were reenergized.
- First Out EAB (Rx Trip by Turb. Trip)
- First Out EB10 (loss of Coolant Flow P8)
- First Out EB9 (NIS Source Range High Flux)
- Alarm FA6 (Rx Trip Ch3 Auto Stop Oil Dump)
- Alarm JH5 (Turb. Stop Valves Closed)

No other actions occurred and the reactor did not trip.

2. Probable Consequences

The auxiliary feed pumps are designed to deliver feedwater to the steam generators during accident and transient conditions. The auxiliary feed pump added about 350 gallons per minute to the steam generators for 2 minutes. This volume of water is insignificant when compared to the approximately 21,000 gallons per minute that was added to the steam generators with the main feed pumps.

The source range detectors provide protection from power excursions at low power, and are deenergized at power to protect the detectors from damage. Both detectors were energized for 1 minute. On 9-18-84, the unit was shutdown and the performance of the source range detector's performance was satisfactory.

If this event had led to a reactor trip, an unreviewed safety question would not have been created because such trips are analyzed in the UFSAR, therefore the health and safety of the public were not affected.

3. Cause

One of the jumpers installed to prevent unnecessary relay actuation was positioned incorrectly. The drawing used to position the jumpers, although correct, was misleading since it is a logic type drawing instead of an internal relay rack wiring drawing. drawing was misinterpreted, also, the complex wiring in the cabinet added to the confusion about jumper placement.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		0 5 0 0 0 2 8 1 8 4 - 0 1 4 - 0 0 0 3					

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

4. Immediate Corrective Action

When the first lead of PRB-XB was lifted, several relays deenergized unexpectedly. It was immediately reconnected. The operators verified that the observed indications did not represent a valid safety concern.

5. Additional Corrective Action

The jumpers were properly installed and relay PRB-XB was replaced.

An investigation verified that with the initial jumper placement, all occurrences reflected proper system logic.

6. Action Taken to Prevent Recurrence

Additional precautionary measures will be added to the relay replacement procedure to ensure that jumpers are correctly specified and placed.

7. Generic Implications

None.

# Vepco

SEP 19 1984

VIRGINIA ELECTRIC AND POWER COMPANY

Surry Power Station  
P. O. Box 315  
Surry, Virginia 23883

Serial No: 84-031

Docket No: 50-281

License No: DPR-37

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

Gentlemen:

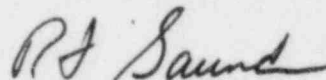
Pursuant to Surry Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit 2.

REPORT NUMBER

84-014-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be reviewed by Safety Evaluation and Control.

Very truly yours,



R. F. Saunders  
Station Manager

Enclosure

cc: Mr. James P. O'Reilly  
Regional Administrator  
Suite 2900  
101 Marietta Street, NW  
Atlanta, Georgia 30323

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