

## 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</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4) <b>Inadvertent Dilution</b>
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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)
<b>1</b>	<b>0</b>	<b>2</b>	<b>8</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>			<b>0 5 0 0 0</b>
<b>1</b>	<b>0</b>	<b>2</b>	<b>8</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>			<b>0 5 0 0 0</b>

OPERATING MODE (9) <b>N</b>		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) <b>0 0 0</b>		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)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
		20.405(a)(1)(iii)	<b>X</b>	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)		TELEPHONE NUMBER
NAME	AREA CODE	
<b>R. F. Saunders, Station Manager</b>	<b>8 0 4</b>	<b>3 5 7 1 - 3 1 8 4</b>

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	
<b>E</b>	<b>C</b>	<b>I</b>	<b>B</b>	<b>1</b>	<b>F</b>	<b>I</b>	<b>Q</b>	<b>F</b>	<b>1</b>	<b>8 1 0 N</b>

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	<b>X</b> NO				

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

On 10-26-85, unit 2 was at cold shutdown with reactor coolant system (RCS) fill operations in progress following a short maintenance outage. At 0053 hours the results of a RCS sample taken at 0015 hours indicated that the boric acid concentration had decreased from 2217 ppm to 1952 ppm. The previous sample was taken at 1600 hours on 10-25-85. Containment integrity was not intact at this time, therefore this event is a violation of Technical Specification 3.8.A.6.

The flow transmitter (EIIS No. FT) that inputs to the boric acid integrator (2-CH-YIC-2113) (EIIS No. FQ) was out of calibration and caused inaccurate operation of the boric acid flow controller (EIIS No. TC).

The flow transmitter was calibrated and system operation was verified to be satisfactory.

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PDR ADOCK 05000281  
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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

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	0 5 0 0 0 2 8 1	8 5	0 1 2	0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 388A's) (17)

INADVERTANT DILUTION1. Description of the Event

On 10-26-85, unit 2 was at cold shutdown with reactor coolant system (RCS) fill operations in progress following a short maintenance outage. At 0053 hours the results of an RCS sample taken at 0015 hours indicated that the boric acid concentration had decreased from 2217 to 1952 ppm. The previous sample was taken at 1600 hours on 10-25-85. The boric acid and primary grade (PG) water setting for the blender remained unchanged from the previous shift. Containment integrity was not intact at this time, therefore this event is a violation of Technical Specification 3.8.A.6.

2. Probable Consequences

If adequate shutdown margin is maintained, a return to criticality is prevented under all analyzed conditions. More than the required shutdown margin was maintained throughout this event, therefore an unreviewed safety question was not created and the health and safety of the public were unaffected.

3. Cause

The inadvertent dilution was caused by problems in the boric acid/PG blend system

The boric acid/PG blend system is used to control the boric acid concentration in the RCS and is comprised of two flow control valves (EIIS no. FCV) with their associated supporting equipment. One control valve (FCV-2113A) controls the flow of boric acid and the other (FCV-2114A) controls the flow of PG water.

The flow transmitter (EIIS No. FT) that inputs to the boric acid integrator (2-CH-YIC-2113) (EIIS No. FQ) was out of calibration and caused inaccurate operation of the boric acid flow controller (EIIS No. TC).

4. Immediate Corrective Action

The boric acid concentration of the blended flow was increased to increase the RCS boron concentration and an immediate calculation (OP-1F) was performed that verified an adequate shutdown margin.

5. Additional Corrective Actions

The Instrument Technicians began troubleshooting the blend system. The transmitter was recalibrated and system operation was verified to be satisfactory.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
Surry Power Station, Unit 2	0   5   0   0   0   2   8   1	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8   5   —	0   1   2   —	0   0			
					0   3	OF	0   3

TEXT (If more space is required, use additional NRC Form 386A's) (17)

INADVERTENT DILUTION6. Action Taken to Prevent Recurrence

The sampling frequency of the RCS will be increased during RCS fill operations.

7. Generic Implications

None.

# Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

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

November 25, 1985

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

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Gentlemen:

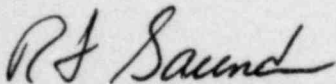
Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit 2.

REPORT NUMBER

85-012-00

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: Dr. J. Nelson Grace  
Regional Administrator  
Suite 2900  
101 Marietta Street, NW  
Atlanta, Georgia 30323

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