

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Surry Power Station, Unit 1	05000280	1 OF 03

TITLE (4)

Control/Relay Room Chiller Inoperable Due To Insufficient Service Water Flow

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									
0	3	23	8	7	-		-	0	0	7	0	0	0	4	1	6	8	7	0	5	0	0	0	
<b>OPERATING MODE (9)</b>			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																					
N			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
POWER LEVEL (10)  1   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)				X 50.73(a)(2)(ii)				50.73(a)(2)(viii)(A)													
			20.405(a)(1)(iv)				50.73(a)(2)(vi)				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	
R. F. Saunders, Station Manager	AREA CODE	
	8   0   4	3   5   7   -   3   1   8   4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

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

On March 23, 1987 at 2100 hours, with Unit 1 at 100% power and Unit 2 at 71% power, one (1-VS-E-4A) of the three control/relay room chillers {EIIS-CHU} tripped. Operators attempted to start the 'C' chiller (1-VS-E-4C), but it tripped also. The 'B' (1-VS-E-4B) chiller was then started and the 'C' chiller was returned to service at 2116 hours. This event is contrary to Tech. Spec. 3.14 which requires one control/relay room chiller to be operating and another to be operable.

The 'A' and 'C' chillers tripped on high condenser discharge pressure due to insufficient service water(SW) flow. A contributing factor to the low flow condition on 'C' chiller was a seal leak on its SW supply pump {EIIS-P} (1-VS-P-1C).

Service water flow through the 'A' and 'C' chillers was increased by manual adjustment of the SW discharge valves. The seal leak on the SW supply pump was subsequently repaired.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)  Surry Power Station, Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 2 8 0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	— 0 0 7	— 0 0	0 2	OF	0 3

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

1.0 Description of the Event

On March 23, 1987 at 2100 hours, with Unit 1 at 100% power and Unit 2 at 71% power, one (1-VS-E-4A) of the three control/relay room chillers {EIIS-CHU} tripped. Operators attempted to start the 'C' chiller (1-VS-E-4C), but it tripped also. The 'B' (1-VS-E-4B) chiller was then started and the 'C' chiller was returned to service at 2116 hours. This event is contrary to Tech. Spec. 3.14 which requires one control/relay room chiller to be operating and another to be operable.

2.0 Safety Consequences and Implications

The control/relay room air conditioning system consists of three 100% capacity chiller units and two trains of 100% capacity air handler units {EIIS-AHU}. The design temperature range of the control/relay rooms is from 40 degrees Fahrenheit to 120 degrees Fahrenheit. Normal operating temperatures are from 65 degrees Fahrenheit to 100 degrees Fahrenheit.

During this event, one chiller unit and all four control/relay room air handlers remained operable or operating and there was no noticeable increase in control or relay room temperatures. Therefore, this event did not constitute an unreviewed safety question and the health and safety of the public were not affected.

3.0 Cause

The 'A' and 'C' chillers tripped on high condenser discharge pressure due to insufficient service water (SW) flow. A contributing factor to the low flow condition on 'C' chiller was a seal leak on its SW supply pump {EIIS-P} (1-VS-P-1C).

4.0 Immediate Corrective Action

The 'B' control/relay room chiller was started and verified operating to provide chilled water to the air handling units.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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

5.0 Additional Corrective Action

Following manual adjustment of the SW discharge valve, the 'C' chiller was returned to service and the 'B' chiller was put in standby.

Service water flow through the 'A' chiller was increased by manual adjustment of its SW discharge valve, and the chiller was returned to operable status.

6.0 Action Taken to Prevent Recurrence

The seal leak on the SW supply pump for the 'C' chiller was subsequently repaired.

The control/relay room ventilation system is being evaluated by engineering, and plans are being developed to upgrade the system.

7.0 Similar Events

See U1-LER 87-003.

8.0 Manufacturer/model number

Chiller Unit: Westinghouse Model PC090 WOL.  
Service Water Pump: Ingersoll-Rand Model 3VK-15.

# Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

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

April 21, 1987

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

Serial No: 87-009  
Docket No.: 50-280  
License No.: DPR-32

Gentlemen:

Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit 1.

REPORT NUMBER

87-007-00

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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