

LICENSEE EVENT REPORT

CONTROL BLOCK: 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1	V	A	S	P	S	1	0	0	-	0	0	0	0	0	-	0	0	3	4	1	1	1	1	4	5
LICENSEE CODE					LICENSE NUMBER										LICENSE TYPE					CAT 58						

CONT

0	1	L	6	0	5	0	0	0	2	8	0	7	0	8	2	9	8	3	8	0	9	2	6	8	3	9
REPORT SOURCE		DOCKET NUMBER										EVENT DATE					REPORT DATE									

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

012 | With the unit at 100% 1-SW-P-10A and 1-SW-P-10B failed to develop sufficient discharge
013 | pressure when one of the redundant service water supply headers was isolated.
014 | This is contrary to T.S. 3.3.A.8.(b) and is reportable per T.S. 6.6.2.b.(2). Charg-
015 | ing pump bearing temperatures remained within allowable limits and 1-SW-P-10A was
016 | returned to service within one hour. Therefore, the health and safety of the public
017 | were not affected.

0	1	8	9
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SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE				COMP. SUBCODE		VALVE SUBCODE	
W A		X		Z		P U M P X X				B		X	
11		12		13		14				15		16	

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.	
8 3		0 3 8		0 3		L		0	
21		24		28		30		32	

ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER	
E		F		Z		Z		0 0 0 0		Y		Y		A		I 0 7 5	
33		34		35		36		37		40		42		43		44	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

110 | The cause was due to insufficient NPSH, two control room A/C units were in operation.
111 | One A/C unit was removed from service thereby increasing the NPSH to 1-SW-P-10A.
112 | 1-SW-P-10A was vented and returned to service. The backwash for the supply strainer
113 | was isolated and 1-SW-P-10B vented and returned to service.

1	1	4	5
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FACILITY STATUS		% POWER		OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
E		1 0 0		N/A		A		Annunciator	
28		29		30		31		32	

ACTIVITY CONTENT		AMOUNT OF ACTIVITY		LOCATION OF RELEASE	
RELEASED OF RELEASE		N/A		N/A	
Z		34		35	
33		34		35	

PERSONNEL EXPOSURES		DESCRIPTION	
NUMBER		N/A	
0 0 0		38	
37		38	

PERSONNEL INJURIES		DESCRIPTION	
NUMBER		N/A	
0 0 0		40	
39		40	

LOSS OF OR DAMAGE TO FACILITY		DESCRIPTION	
TYPE		N/A	
Z		42	
41		42	

PUBLICATION		DESCRIPTION	
ISSUED		N/A	
N		44	
43		44	

NAME OF PREPARED J. L. Wilson

(804) 357-3184

PHONE

NRC USE ONLY

IE 22
1/1 retrofit
83

ATTACHMENT

SURRY POWER PLANT, UNIT NO. 1

DOCKET NO: 50-280

REPORT NO: 83-038/03L-0

EVENT DATE: 08-29-83

TITLE OF THE EVENT: 1-SW-P-10A & B FAILED TO MAINTAIN SUFFICIENT DISCHARGE PRESSURE

1. DESCRIPTION OF THE EVENT:

With Unit 1 at 100% power and Unit 2 at Cold Shutdown, maintenance was being performed on Unit 2 Service Water MOV's which necessitated isolation of the Unit 2A waterbox and the cleaning of valve 2-SW-11. 2-SW-11 is the Unit 2 isolation valve for service water supply header to the control room AC units and charging pump service water pumps. Immediately following the closure of 2-SW-11, the discharge pressure for 1-SW-P-10A (Unit 1 charging pump service water pump) decreased to a point which initiated auto start of the redundant pump, 1-SW-P-10B. However, 1-SW-P-10B was also unable to develop and maintain sufficient discharge pressure. This event is contrary to Technical Specification 3.3.A.8.(b) and reportable per Technical Specification 6.6.2.b.(2). In addition, 2-SW-P-10A (Unit 2 charging pump service water pump) also failed to maintain sufficient discharge pressure during this event.

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT EQUIPMENT:

The charging pump service water pumps supply service water to the charging pump intermediate seal coolers and lube oil coolers. During the brief time that sufficient pressure was not being developed by the pumps, the charging pump bearing temperatures were monitored and remained within the allowable limits. Therefore, the health and safety of the public were not affected.

3. CAUSE:

Four charging pump service water pumps, along with three air conditioner chiller units are located in No. 3 equipment room. These components are supplied with service water, via rotating strainers, from two 6" supply headers, gravity fed from the intake canal. Two-inch branch lines supply service water to the charging pump service water pumps while four-inch lines supply water to the chiller units.

Experience has shown that the performance of the charging pump service water pumps is sensitive to the available NPSH. At the time of the event, two chillers were in operation. Therefore when one service water supply header was isolated, the supply of water and available NPSH to the charging pump service water pumps decreased to the point the pumps were not capable of maintaining adequate discharge pressure.

4. IMMEDIATE CORRECTIVE ACTION:

One chiller was removed from operation, increasing the supply of water available to the pumps, and the 1-SW-P-10A pump was vented, thereby flooding the pump suction. Following these actions, the pump developed and maintained sufficient discharge pressure.

ATTACHMENT 1

SURRY POWER STATION, UNIT NO. 1

DOCKET NO: 50-280

REPORT NO: 83-038/03L-0

EVENT DATE: 08-29-83

TITLE OF THE EVENT: 1-SW-P-10A & B FAILED TO MAINTAIN SUFFICIENT DISCHARGE PRESSURE

5. SUBSEQUENT CORRECTIVE ACTION:

The backwash for the operating supply strainer was isolated which increased the available NPSH to 1-SW-P-10B allowing it to develop and maintain sufficient discharge pressure. Also, the Unit 2A waterbox was returned to service and 2-SW-11 opened within 24 hours and the #3 mechanical room valve line-up was returned to normal.

6. ACTION TAKEN TO PREVENT RECURRENCE:

A design change is in progress which will relocate the charging pump service water pumps and increase the available NPSH to these pumps. The design change is scheduled for completion in the fall of 1983.

7. GENERIC IMPLICATIONS:

This is a generic problem to both Surry units.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
Surry Power Station
P. O. Box 315
Surry, Virginia 23883

Serial No: 83-067

Docket No: 50-280

License No: DPR-32

SEP 26 1983

Mr. James P. O'Reilly
Regional Administrator
Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30303

Dear Mr. O'Reilly

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

Report Number

83-038/03L-0 *B*

Applicable Technical Specification

T. S. 6.6.2.b(2)

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,

J. L. Wilson
J. L. Wilson
Station Manager

Enclosure

cc: Document Control Desk, USNRC
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Washington, D. C. 20555

EXHIBITED ORIGINAL

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