

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

March 30, 1978

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Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Region II - Suite 818  
230 Peachtree Street, Northwest  
Atlanta, Georgia 30303

Serial No. 161  
PO&M/DLB:dgt  
Docket No. 50-281  
License No. DPR-37

Dear Mr. O'Reilly:

Pursuant to Surry Power Station Technical Specification 6.6.2.b(2), the Virginia Electric and Power Company hereby submits the following License Event Reports for Surry Unit No. 2.

LER-78-008/03L-0  
LER-78-009/03L-0  
LER-78-010/03L-0

These reports have been reviewed by the Station Nuclear Safety and Operating Committee and will be placed on the agenda for the next meeting of the System Nuclear Safety and Operating Committee.

Very truly yours,

*C. M. Stallings*

C. M. Stallings  
Vice President-Power Supply  
and Production Operations

Enclosure (3 copies)

cc: Dr. Ernest Volgenau, Director (30 copies)  
Office of Inspection and Enforcement

Mr. William G. McDonald, Director (3 copies) ✓  
Office of Management Information  
and Program Control

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LICENSEE EVENT REPORT

CONTROL BLOCK: \_\_\_\_\_ (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 V A S P S 2 00-000000-000 41111 4 5  
7 8 9 14 15 25 26 30 57 CAT 58

CON'T  
01 REPORT SOURCE L 05000281 022778 032878 9  
7 8 60 61 68 69 74 75 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During normal operation at full power, one tie rod bolt head of snubber  
03 2-SHP-HSS-1B was observed to be in contact with the attachment ear of the  
04 pipe support band apparently restricting snubber operation. This is con-  
05 trary to T.S. 3.20A and reportable per T.S. 6.6.2.b(2). The health and  
06 safety of the public were not affected.  
07  
08

09 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE  
H B B A S U P O R T D Z  
9 10 11 12 13 18 19 20  
17 LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.  
7 8 21 22 23 24 26 27 28 29 30 31 32  
7 8 21 22 23 24 26 27 28 29 30 31 32  
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32  
B F Z Z 00000 Y N N I 2 0 7  
33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Apparently, expansion of the steam line from cold to hot conditions result-  
11 ed in contact. Adequate clearance existed in the cold condition. The re-  
12 stricting material of the attachment ear was removed providing clearance  
13 for movement. Upon removal of the interference, the snubber exhibited  
14 1-32nd to 1-16th inch movement.

15 FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION  
E 100 NA B Operating observation  
7 8 9 12 13 44 45 46 80

16 ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE  
Z Z NA NA  
7 8 9 10 11 44 45 80

17 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION  
000 Z NA  
7 8 9 11 12 13 80

18 PERSONNEL INJURIES NUMBER DESCRIPTION  
000 NA  
7 8 9 11 12 13 80

19 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION  
Z NA  
7 8 9 11 12 80

20 PUBLICITY ISSUED DESCRIPTION  
N NA  
7 8 9 10 80

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NAME OF PREPARER T. L. Baucom PHONE: (804) 357-3184

Surry Power Station, Unit 2  
Docket No. 50-281  
Report No. 78-008/03L-0

## Snubber Body in Contact with Structure

### 1. Description

During normal operation at full power, one tie bolt head of snubber 2-SHP-HSS-1B was observed to be in contact with the attachment ear of the pipe support band, apparently restricting snubber operation. This condition is contrary to Technical Specification 3.20.A and is reported in accordance with Technical Specification 6.6.2.b(2).

### 2. Probable Consequences

Under the existing conditions, snubber action in the compressive direction would have been restricted had a seismic event occurred. In normal operation, as the assembly was found, the tie bolt head was just "in contact" with the connecting ear. There was no effect on the health and safety of the general public.

### 3. Cause of the Event

The event occurred because of growth in the steam line in heat up from cold condition.

### 4. Immediate Corrective Action

Immediately following discovery of the condition, action was taken to remove the interfering corners of the attachment ear. This amounted to leveling the corner of the attachment ear. The metal removed was not significant to the strength of the assembly. Following this corrective action the snubber exhibited 1/32nd to 1/16th inch of movement.

### 5. Scheduled Corrective Action

An engineering evaluation will be conducted to determine if the existing installation is correct for anticipated transients.

### 6. Action Taken to Prevent Recurrence

Other than the immediate corrective action indicated above, no further corrective action is anticipated in the short term pending the outcome of the engineering evaluation.

### 7. Generic Implications

There are no generic implications of this event.



Trip of Boric Acid Transfer Pump 1-CH-P-2D

1. Description

During normal operation at full power, Boric Acid Transfer Pump 1-CH-P-2D was found tripped on thermal overload. The breaker reset and the pump was re-started in slow speed. The process computer print-outs were reviewed and it was determined that the pump could not have been tripped for more than one hour and 20 minutes. The event is contrary to Technical Specification 3.3.A.3 and is reported in accordance with Technical Specification 6.6.2(b)

2. Probable Consequences

The health and safety of the public were not affected by this event because the period of time the Boron Injection Tank was off recirculation is less than that permitted by Technical Specification 3.3.B.10.

3. Cause of Event

Testing by electronics revealed no current grounds. A test run at slow speed indicated a normal running current of about 9.2 amperes. In high speed, after a short period of time, the current varied erratically between 18 and 23 amperes. Consequently a rubbing noise was heard in the outboard pump bearing. After pump disassembly the outboard bearing was found to be damaged and showed effects of overheating. It was determined that overheating and progressive seizure of the outboard bearing was responsible for the overload trip. Previous trips of this pump as reported in LER-78-002/03L-0 (50-281) and are now understandable.

4. Immediate Corrective Action

At the time the trip was discovered and the 'D' pump restarted, the 'C' pump was also started and run as a back-up. Following diagnosis as described in Cause of Event, the 'D' pump was taken out of service for repair. In addition to bearing replacement, the pump was generally overhauled, re-installed, aligned and placed in service. Subsequent operation has been normal.

5. Scheduled Corrective Action

No further action in this matter is scheduled since the pump continues to operate normally. Due to the redundancy of installed pumps, these units are overhauled on an "as required" basis.

6. Action Taken to Prevent Recurrence

No specific action will be taken. These pumps are presently covered by a routine lubrication schedule and operational observation.

7. Generic Implications

There are no generic implications in this event, the failure is random, i.e. no recurrent failure to one pump or one particular part.



Surry Power Station, Unit 2  
Docket No. 50-281  
Report No. 78-010/03L-0

## Failure of Pressurizer Channel

### 1. Description

During normal operation Channel II Pressurizer Pressure (Protection), P-456 failed low. The following trip signals locked in: Low Pressure Reactor Trip Ch. II, Low Pressure Safety Injection Ch. II, Overtemperature Delta T Rod Stop Ch. II, Overtemperature Delta T Reactor Trip Ch. II, Overtemperature Delta T Turbine Runback Ch. II.

### 2. Probable Consequences

The pressure indicator failure, in regards to the above trip signals, was in the conservative direction. The minimum number of operable channels and the required degree of redundancy were maintained in the Overtemperature Delta T and Low Pressurizer Pressure instrumentation. But, because the pressure channel failed low, the required degree of redundancy for the High Pressurizer Pressure trip function was not maintained. This is contrary to Technical Specification 3.7.B.

### 3. Cause of Event

Investigation revealed that the power supply to P-456 had failed.

### 4. Immediate Corrective Action

Immediate corrective action taken was to place the Pressurizer Pressure (Protection) Channel II in the trip mode. This gave the required degree of redundancy for High Pressurizer Pressure trip. Because the necessary actions were taken to maintain the required Instrument Operating Conditions, the health and safety of the general public were not affected. The power supply was replaced, tested, and Channel II was returned to service.

### 5. Scheduled Corrective Action

No further corrective action will be required.

### 6. Action Taken to Prevent Recurrence

This failure is considered a random event, therefore no further action will be taken.

### 7. Generic Implications

None. This is a random failure.