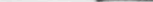


**LICENSEE EVENT REPORT**

CONTROL BLOCK: 

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

|   |   |               |   |   |   |   |   |    |    |                |   |   |   |   |   |   |   |   |   |    |    |              |   |   |   |   |    |    |     |  |    |    |
|---|---|---------------|---|---|---|---|---|----|----|----------------|---|---|---|---|---|---|---|---|---|----|----|--------------|---|---|---|---|----|----|-----|--|----|----|
| 0 | 1 | N             | J | S | G | S | 2 | 2  | 0  | 0              | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3  | 4  | 1            | 1 | 1 | 1 | 4 |    |    | 5   |  |    |    |
| 7 | 8 | LICENSEE CODE |   |   |   |   |   | 14 | 15 | LICENSE NUMBER |   |   |   |   |   |   |   |   |   | 25 | 26 | LICENSE TYPE |   |   |   |   | 30 | 31 | CAT |  | 36 | 37 |

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REPORT SOURCE 1 6 0 5 0 0 0 3 1 1 7 0 7 0 7 8 3 8 0 7 2 9 8 3 9  
7 8 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On July 7, 1983, during routine startup operations, No. 23 Auxiliary Feedwater Pump was started for monthly surveillance. As the pump started, a large amount of steam issued from the vicinity of the pump. The pump steam supply was isolated, rendering the pump inoperable, and Action Statement 3.7.1.2a was entered. The event involved operation in a degraded mode in accordance with Technical Specification 6.9.1.9b.

|                      |   |             |    |                     |    |                 |            |             |    |              |               |              |    |               |                |                 |    |                 |    |         |    |                      |    |                 |    |                     |    |                        |    |               |    |    |    |    |    |    |    |    |    |    |
|----------------------|---|-------------|----|---------------------|----|-----------------|------------|-------------|----|--------------|---------------|--------------|----|---------------|----------------|-----------------|----|-----------------|----|---------|----|----------------------|----|-----------------|----|---------------------|----|------------------------|----|---------------|----|----|----|----|----|----|----|----|----|----|
| 0                    | 9 | SYSTEM CODE |    | C                   | H  | 11              | CAUSE CODE |             | B  | 12           | CAUSE SUBCODE |              | A  | 13            | COMPONENT CODE |                 |    |                 | P  | I       | P  | E                    | X  | X               | 14 | COMP SUBCODE        |    | A                      | 15 | VALVE SUBCODE |    | Z  | 16 |    |    |    |    |    |    |    |
| 7                    | 8 | 9           | 10 | 11                  | 12 | 13              | 14         | 15          | 16 | 17           | 18            | 19           | 20 | 21            | 22             | 23              | 24 | 25              | 26 | 27      | 28 | 29                   | 30 | 31              | 32 | 33                  | 34 | 35                     | 36 | 37            | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |
| LER RO REPORT NUMBER |   | EVENT YEAR  |    | SEQUENCE REPORT NO. |    | OCCURRENCE CODE |            | REPORT TYPE |    | REVISION NO. |               | ACTION TAKEN |    | FUTURE ACTION |                | EFFECT ON PLANT |    | SHUTDOWN METHOD |    | HOURS   |    | ATTACHMENT SUBMITTED |    | NPRD-4 FORM SUB |    | PRIME COMP SUPPLIER |    | COMPONENT MANUFACTURER |    |               |    |    |    |    |    |    |    |    |    |    |
| 17                   |   | 8 3         |    | 0 3 3               |    | 0 3             |            | L           |    | 0            |               | A            |    | F             |                | Z               |    | Z               |    | 0 0 0 0 |    | Y                    |    | N               |    | A                   |    | U 0 8 0                |    |               |    |    |    |    |    |    |    |    |    |    |

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Investigation revealed that the source of the steam was a hole in the pump steam  
1 1 supply drain line; high velocity steam from the outlet of the drain line orifice  
1 2 apparently eroded the downstream section of drain line piping. The leaky section of  
1 3 piping was replaced and the action statement was terminated. An engineering review  
1 4 of the drain line piping involved will be performed.

|                     |   |        |                         |    |        |                   |    |  |                          |                      |  |                            |    |  |
|---------------------|---|--------|-------------------------|----|--------|-------------------|----|--|--------------------------|----------------------|--|----------------------------|----|--|
| 7                   | 8 | 9      |                         |    |        |                   |    |  |                          |                      |  |                            | 80 |  |
| FACILITY STATUS     |   |        | % POWER                 |    |        | OTHER STATUS (30) |    |  | METHOD OF DISCOVERY      |                      |  | DISCOVERY DESCRIPTION (32) |    |  |
| 1                   | 5 | C (28) | 0                       | 0  | 0 (29) | NA                |    |  | B (31)                   | Surveillance Testing |  |                            |    |  |
| 7                   | 8 | 9      |                         |    |        |                   |    |  |                          |                      |  |                            | 80 |  |
| ACTIVITY CONTENT    |   |        |                         |    |        |                   |    |  |                          |                      |  |                            |    |  |
| RELEASED OF RELEASE |   |        | AMOUNT OF ACTIVITY (35) |    |        |                   |    |  | LOCATION OF RELEASE (36) |                      |  |                            |    |  |
| 1                   | 6 | Z (33) | Z (34)                  | NA |        |                   | NA |  |                          |                      |  |                            |    |  |
| 7                   | 8 | 9      |                         |    |        |                   |    |  |                          |                      |  |                            | 80 |  |

| PERSONNEL EXPOSURES |   |                   |             |
|---------------------|---|-------------------|-------------|
| NUMBER              |   | TYPE              | DESCRIPTION |
| 1                   | 7 | d o d (37) z (38) | NA (39)     |

| PERSONNEL INJURIES |   | DESCRIPTION |    |
|--------------------|---|-------------|----|
| NUMBER             |   |             |    |
| 1                  | H | 40          | NA |

|   |   | LOSS OF OR DAMAGE TO FACILITY |             | (43)      |
|---|---|-------------------------------|-------------|-----------|
|   |   | TYPE                          | DESCRIPTION |           |
| 1 | 9 | Z                             | (42) NA     | 222<br>11 |

8308120155 830729  
PDR ADOCK 05000311  
S PDR

PUBLICITY  
ISSUED DESCRIPTION (45)  
2 0 N (44) NA

NRC USE ONLY

8308120155 830729  
PDR ADOCK 05000311  
S PDR

NRC USE ONLY

NAME OF PREPARER

R. Frahm

PHONE: (609) 935-6000 Ext. 4309



Public Service Electric and Gas Company P.O. Box E Hancocks Bridge, New Jersey 08038

Salem Generating Station

August 4, 1983

Dr. Thomas E. Murley  
Regional Administrator  
USNRC  
Region 1  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

LICENSE NO. DPR-75  
DOCKET NO. 50-311  
REPORTABLE OCCURRENCE 83-033/03L

Pursuant to the requirements of Salem Generating Station Unit No. 2, Technical Specifications, Section 6.9.1.9.b, we are submitting Licensee Event Report for Reportable Occurrence 83-033/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

J. M. Zupko, Jr.  
General Manager -  
Salem Operations

RF:k11

CC: Distribution

IE 22-  
||

Report Number: 83-033/03L  
Report Date: 07-29-83  
Occurrence Date: 07-07-83  
Facility: Salem Generating Station Unit 2  
Public Service Electric & Gas Company  
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Plant Systems - No. 23 Auxiliary Feedwater Pump - Inoperable.

This report was initiated by Incident Report 83-119.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 3 - Rx Power 0 % - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

At approximately 1900 hours, July 7, 1983, during routine startup operations, an Equipment Operator started the No. 23 Auxiliary Feedwater Pump for performance of monthly surveillance testing. As the pump started, a large amount of steam issued from the vicinity of the pump. An attempt to trip the pump locally failed, and the pump trip coil was observed to be smoking. Subsequent attempts to trip the pump manually were unsuccessful due to the pump room being filled with steam. The Control Room was notified and the pump was successfully tripped remotely.

The Equipment Operator isolated steam to the pump by shutting Steam Supply Valves 21MS45 and 23MS45. Closing the valves rendered the pump inoperable and Action Statement 3.7.1.2a was entered. No fire occurred and no equipment other than the trip coil was damaged. The redundant electrical pumps were operable throughout the occurrence and were capable of meeting Auxiliary Feedwater System requirements.

APPARENT CAUSE OF OCCURRENCE:

The source of the steam was a hole in the pump steam supply drain line downstream of Valve 23MS55. High velocity steam from the outlet of the drain line orifice apparently struck the wall of the drain line, eroding a hole in the piping.

Investigation of the trip coil failure revealed that the mounting bracket for the trip coil limit switch was loose; the switch de-energizes the coil shortly after actuation, to prevent overheating of the coil. Loosening of the bracket was apparently due to normal vibration during pump operation and was assumed to be isolated in nature.

ANALYSIS OF OCCURRENCE:

The operability of the Auxiliary Feedwater System ensures that the Reactor Coolant System (RCS) can be cooled down to less than 350°F from normal operating conditions in the event of a total loss of offsite power. The capacity of either both electric driven pumps or the steam driven pump is sufficient to remove decay heat and reduce the RCS to 350°F when the Residual Heat Removal System may be placed in operation.

As noted, the redundant electric pumps were operable and capable of meeting system flow requirements. The event therefore did not involve any undue risk to the health and safety of the public. The occurrence constituted operation in a degraded mode permitted by a limiting condition for operation, and is reportable in accordance with Technical Specification 6.9.1.9b.

Action Statement 3.7.1.2a requires:

With one auxiliary feedwater pump inoperable, restore the inoperable pump to operable status within 72 hours or be in at least hot standby within the next 6 hours and in hot shutdown within the following 6 hours.

CORRECTIVE ACTION:

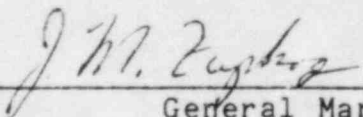
The leaky section of piping was replaced and No. 23 Auxiliary Feedwater Pump was satisfactorily tested. The pump was declared operable and Action Statement 3.7.1.2a was terminated at 1200 hours, July 10, 1983. An engineering review of the problem will be performed to identify possible changes which could prevent erosion of the line. Appropriate changes will be implemented on the basis of the results of the review.

The trip coil limit switch bracket was adjusted, the trip coil replaced, and operation of the trip satisfactorily tested. In accordance with the existing preventive maintenance program, pump equipment is routinely inspected for loose connections, fasteners, etc. No further action involving the trip coil was deemed necessary at this time.

FAILURE DATA:

Main Steam Drain System  
1 in. Piping

Prepared By R. Frahm

  
\_\_\_\_\_  
General Manager -  
Salem Operations

SORC Meeting No. 83-102