

## LICENSEE EVENT REPORT (LER)

|                                                                            |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
|----------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------|------------------|-----------------|-----------|----------------|--------------------------------------|--|-------------------------------|------------------|----------------------------------------------------------------|-----|------|
| FACILITY NAME (1)<br>Salem Generating Station - Unit 1                     |        |                                                                                                              |                |                   |                 |                  |                 |           |                | DOCKET NUMBER (2)<br>0 5 0 0 0 2 7 2 |  |                               |                  | PAGE (3)<br>1 OF 0 4                                           |     |      |
| TITLE (4)<br>Service Water Leak Inside Containment                         |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
| 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 2                                                                        | 0 2    | 8 4                                                                                                          | 8 4            | 0 0 6             | 0 0             | 0 2              | 1 6             | 8 4       |                |                                      |  |                               | 0 5 0 0 0        |                                                                |     |      |
| OPERATING MODE (9)                                                         |        | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11) |                |                   |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
| 1                                                                          |        | 20.402(b)                                                                                                    |                |                   |                 | 20.405(e)        |                 |           |                | 90.73(a)(2)(iv)                      |  |                               |                  | 73.71(b)                                                       |     |      |
| POWER LEVEL (10)                                                           |        | 20.405(a)(1)(i)                                                                                              |                |                   |                 | 90.39(a)(1)      |                 |           |                | 90.73(a)(2)(v)                       |  |                               |                  | 73.71(a)                                                       |     |      |
| 1 0 0                                                                      |        | 20.405(a)(1)(ii)                                                                                             |                |                   |                 | 90.39(a)(2)      |                 |           |                | 90.73(a)(2)(vi)                      |  |                               |                  | X OTHER (Specify in Abstract below and in Text, NRC Form 308A) |     |      |
|                                                                            |        | 20.405(a)(1)(iii)                                                                                            |                |                   |                 | 90.73(a)(2)(i)   |                 |           |                | 90.73(a)(2)(vii)(A)                  |  |                               |                  |                                                                |     |      |
|                                                                            |        | 20.405(a)(1)(iv)                                                                                             |                |                   |                 | 90.73(a)(2)(ii)  |                 |           |                | 90.73(a)(2)(vii)(B)                  |  |                               |                  |                                                                |     |      |
|                                                                            |        | 20.405(a)(1)(v)                                                                                              |                |                   |                 | 90.73(a)(2)(iii) |                 |           |                | 90.73(a)(2)(viii)                    |  |                               |                  |                                                                |     |      |
| LICENSEE CONTACT FOR THIS LER (12)                                         |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
| NAME<br>J. L. Rupp                                                         |        |                                                                                                              |                |                   |                 |                  |                 |           |                | TELEPHONE NUMBER                     |  |                               |                  |                                                                |     |      |
|                                                                            |        |                                                                                                              |                |                   |                 |                  |                 |           |                | AREA CODE<br>6 0 9 3 3 9 - 4 3 0 9   |  |                               |                  |                                                                |     |      |
| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
| CAUSE                                                                      | SYSTEM | COMPONENT                                                                                                    | MANUFACTURER   | REPORTABLE TO NRC |                 | CAUSE            | SYSTEM          | COMPONENT | MANUFACTURER   | REPORTABLE TO NRC                    |  |                               |                  |                                                                |     |      |
| B                                                                          | B 1    | P S F                                                                                                        | C 1 6 5        | Y                 |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
|                                                                            |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  |                               |                  |                                                                |     |      |
| SUPPLEMENTAL REPORT EXPECTED (14)                                          |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  | EXPECTED SUBMISSION DATE (15) |                  | MONTH                                                          | DAY | YEAR |
| YES (If you complete EXPECTED SUBMISSION DATE)                             |        |                                                                                                              |                |                   |                 |                  |                 |           |                |                                      |  | X NO                          |                  |                                                                |     |      |

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

On February 2, 1984, during normal power operation, both containment sump pumps started. Unidentified containment sump in-leakage indicated greater than 1 GPM. Both pumps and the Containment Sump Level Monitoring System were determined to be functioning properly. A Reactor Coolant System water inventory balance was initiated, and a containment entry was made to identify the source of leakage. A leak was discovered on No. 15 Containment Fan Coil Unit service water vent line. Service water to the fan coil unit was isolated, and the unit was declared inoperable. Excessive welding of the joint during initial installation apparently damaged the cement lining, which resulted in corrosion in the area of the weld. The other fan coil units were inspected, with no indication of similar damage. The vent line was replaced, inspected, and tested. No. 15 CFCU was restored to an operable status the following day. The leak was immediately detected and isolated. All systems functioned as designed. No water accumulated inside containment, and no other equipment was affected by the event. The redundant fan coil units remained in an operable status throughout the occurrence. There was no undue risk to the health or safety of the public. Due to the service water leak inside containment, this report is required in accordance with IE Bulletin Number 80-24.

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### PLANT AND SYSTEM IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

Energy Industry Identification System (EIIS) codes are indentified in the text as [XX].

### IDENTIFICATION OF OCCURRENCE:

Service Water Leak Inside Containment - No. 15 Containment Fan Coil Unit (CFCU) Vent Line

Event Date: 02/02/84

Report Date: 02/16/84

This report was initiated by Incident Report No. 84-022

### CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 100 % - Unit Load 1135 MWe

### DESCRIPTION OF OCCURRENCE:

At 0609, February 2, 1984, No. 11 Containment Sump Pump [BP], started. At 0611, No. 12 Containment Sump Pump also started. At 0615 hours, Technical Specification Action Statement 3.4.6.2.b was entered, due to unidentified containment sump in-leakage exceeding one (1) GPM. The Containment Sump Level Monitoring System [IJ] was determined to be operating properly, and at 0631 hours, a Reactor Coolant System [AB] water inventory balance was initiated. A supervisor entered the containment at 0721 hours to determine the source of the leakage. At 0730 hours, a leak was discovered on No. 15 CFCU [BK] Service Water vent line. Service Water [BI] to the fan coil unit was isolated. No. 15 CFCU was declared inoperable, and Technical Specification Action Statement 3.6.2.3.a was entered at 0730 hours. Technical Specification Action Statement 3.4.6.2.b was terminated at 0740 hours, after the leak was identified. The USNRC was notified of the occurrence at 0740 hours, February 2, 1984.

### APPARENT CAUSE OF OCCURRENCE:

Investigation revealed that the leak was from No. 15 CFCU Service Water supply header vent line, at a point where the vent line is socket welded to the header. The inside of the three-quarter inch (3/4") carbon steel vent line is coated with cement to prevent corrosion. Inspection of the vent line, after it was removed, revealed that this protective coating was damaged in the area of the weld; corrosion was evident.

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**APPARENT CAUSE OF OCCURRENCE: (cont'd)**

Examination of the joint indicated an excessive amount of weld material. It appears that difficulty was encountered in welding this particular joint, and the cement coating suffered heat damage during the initial installation process. The vent line suffered corrosion in the immediate area of the weld. This subsequently led to a pipe wall leak-through. The external surface of the pipe was also corroded due to the pipe insulation containing the moisture, and maintaining the surface in a corrosive atmosphere. The welded connections on the redundant fan coil units were inspected; the welds were satisfactory. This appears to be an isolated case, with no reason to suspect similar failures in the future.

**ANALYSIS OF OCCURRENCE:**

Technical Specification 3.6.2.3 requires three (3) independent groups of containment cooling fans to be operable, with two (2) fan systems to each of two (2) groups and one (1) fan system to the third group.

Action Statement 3.6.2.3.a states:

With one group of the required containment cooling fans inoperable and both Containment Spray Systems operable, restore the inoperable group of cooling fans to operable status within seven (7) days, or be in at least hot standby within the next six (6) hours and in cold shutdown within the following thirty (30) hours.

The redundant containment cooling fans and both Containment Spray Systems [BE] remained in an operable status throughout the occurrence, and the inoperable fan was restored to an operable status within the time specified by the Action Requirement. The Containment Sump Level Monitoring System, which is one of the Reactor Coolant System Leak Detection Systems, afforded early detection of the Service Water leak. The leak amounted to approximately six-thousand (6000) gallons of Service Water; all of which, was immediately removed from the containment, via the containment sump pumps, with no accumulation in the containment. All systems performed as designed, and no equipment damage resulted from the leak. The event constituted operation in a degraded mode permitted by a limiting condition for operation in accordance with the Technical Specifications. The event involved no undue risk to the health or safety of the public. Due to the Service Water leak inside of containment, the event is reportable in accordance with USNRC IE Bulletin No. 80-24.

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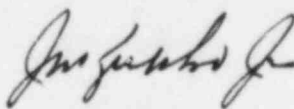
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CORRECTIVE ACTION:

The vent line was replaced, rewelded and dye-penetrant inspected. The line was pressurized, and an inservice inspection was performed. The results were satisfactory, and No. 15 CFCU was declared operable and returned to service. Technical Specification Action Statement 3.6.2.3.a was terminated at 2130 hours, February 3, 1984.



General Manager-  
Salem Operations

JLR:tns

SORC Mtg 84-020





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

Salem Generating Station

February 16, 1984

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Dear Sir:

SALEM GENERATING STATION  
LICENSE NO. DPR-70  
DOCKET NO. 50-272  
UNIT NO. 1  
LICENSEE EVENT REPORT 84-006-00

This Licensee Event Report is being submitted pursuant to the requirements of IE Bulletin Number 80-24. This report is required within fourteen (14) days of discovery.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "J. M. Zupko, Jr.", is written above the typed name.

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

JR:k11 *JLH*

CC: Distribution

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