NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| Salem Generating Station - Unit 1 | 0 5 0 0 0 2 7 2 | 1 OF 0 4 |

TITLE (4)
Service Water Leak Inside of 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 5 0 0 0 |
| 0 3 | 2 0 | 8 5 | 8 5 | — 0 0 6 | — 0 0 | 0 4 | 0 3 | 8 5 | | 0 5 0 0 0 |

| OPERATING MODE (9) | 1 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | |
|---|---|---|---|---|---|
| POWER LEVEL (10) | 1 0 0 | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
| | | 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) | X OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | | 20.405(a)(1)(iii) | 50.73(a)(2)(i) | 50.73(a)(2)(viii)(A) | I.E. Bulletin 80-24 |
| | | 20.405(a)(1)(iv) | 50.73(a)(2)(ii) | 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 |
|---|---|
| J. L. Rupp | AREA CODE 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 NPRDS | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X | B K | C L R | C 7 8 0 | Y | | | | | | | |
| | | | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | | | |

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

On March 20, 1985, a containment sump pump run indicated an unidentified containment sump in-leakage rate of greater than one GPM. Pressurizer level was stable, and there was no increase in charging flow or Reactor Coolant System (RCS) makeup. The leakage was conservatively classified as RCS leakage, Technical Specification Action Statement 3.4.6.2.b was entered and an RCS water inventory balance calculation was initiated. Service water to No. 13 Containment Fan Coil Unit (CFCU) was isolated because the CFCU had been placed in service just prior to the occurrence. A containment entry revealed a service water leak had developed on No. 13 CFCU motor cooler. Surveillance Procedure SP(O) 4.4.6.2 verified that the RCS unidentified leak rate was less than one GPM, and the action statement was terminated. Investigation revealed that the leak was from the motor cooler head gasket. Because the Unit was operating at power, the entire motor cooler was replaced to expedite the repair. No. 13 CFCU was placed in service, satisfactorily tested and restored to a operable status. The immediate isolation of the service water leak resulted in no accumulation of water inside containment; however, this report is being submitted in accordance with the requirements of I.E. Bulletin No. 80-24, which requires the reporting of all service water leaks inside of containment.



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**PLANT AND SYSTEM IDENTIFICATION:**

Westinghouse - Pressurized Water Reactor

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

**IDENTIFICATION OF OCCURRENCE:**

Service Water Leak Inside of Containment - No. 13 Containment Fan Coil Unit (CFCU) Motor Cooler Leak

Event Date: 03/20/85

Report Date: 04/03/85

This report was initiated by Incident Report No. **85-070**

**CONDITIONS PRIOR TO OCCURRENCE:**

Mode 1 - Rx Power 100 % - Unit Load 1143 MWe

**DESCRIPTION OF OCCURRENCE:**

At 2115 hours, March 20, 1985, during routine power operation, No. 13 CFCU [BK] was placed in service for an operability test. The CFCU had been previously isolated to perform a Service Water System [BI] weld repair, located on a pressure tap line for a radiation monitor outside of the containment. At 2120 hours, a containment sump pump run indicated an unidentified containment sump in-leakage rate of 0.27 GPM. At 2130 hours, unidentified containment sump in-leakage rate exceeded ten (10) GPM. Technical Specification Action Statement 3.4.6.2.b was entered at this time, and a Reactor Coolant System [AB] water inventory balance calculation was initiated.

Technical Specification 3.4.6.2 requires that Reactor Coolant System (RCS) leakage be limited to a) no pressure boundary leakage, b) ten (10) GPM identified leakage, and c) one (1) GPM unidentified leakage.

Action Statement 3.4.6.2.b requires:

> With any RCS leakage greater than ten (10) GPM identified or greater than one (1) GPM unidentified, reduce the leakage to within limits within four (4) hours, or be in cold shutdown within the following thirty (30) hours. Any pressure boundary leakage requires being in hot standby within six (6) hours and in cold shutdown within the following thirty (30) hours.

**DESCRIPTION OF OCCURRENCE: (cont'd)**

There were no other evolutions in progress at the time, and no abnormal indications were observed in the control room; i.e., pressurizer level was stable, and there was no increase in charging flow or RCS makeup. No. 13 CFCU was secured at 2131 hours, and service water to the unit was isolated.

A containment entry was performed at 2158 hours, and a service water leak was discovered on No. 13 CFCU motor cooler at 2218 hours. In accordance with the requirements of I.E. Bulletin No. 80-24, the Commission was notified of the event at 2219 hours; notification was in accordance with the requirements of the Code of Federal Regulations, 10CFR 50.72. At 0038 hours, March 21, 1985, Action Statement 3.4.6.2.b was terminated, following the completion of Surveillance Procedure SP(O) 4.4.6.2 which verified that the RCS unidentified leak rate was less than one (1) GPM.

**APPARENT CAUSE OF OCCURRENCE:**

Investigation revealed that the motor cooler head gasket had developed a leak. There is no indication as to what caused the head gasket to fail.

**ANALYSIS OF OCCURRENCE:**

The RCS leakage limits are based on ensuring the ability to detect leakage from the reactor coolant boundary. The one (1) GPM value is sufficiently low to ensure early detection of additional leakage; the ten (10) GPM identified leakage limitation provides allowance for a limited amount of leakage from known sources whose presence will not interfere with the detection of unidentified leakage by the leak detection systems; and, pressure boundary leakage of any magnitude is unacceptable, since it may be indicative of an impending gross failure of the pressure boundary. The leak was identified, determined not to be from the pressure boundary and unidentified leakage was reduced to less than one (1) GPM within the time specified by the action requirements. Service water to the motor cooler was immediately isolated resulting in no accumulation of water inside of containment. With respect to the inoperable fan coil unit, the CFCU's provide one-hundred percent (100%) redundancy to the Containment Spray System [BE] for the purpose of containment cooling and depressurization during a high energy line break inside containment. The Containment Spray System remained operational, and the loss of the CFCU did not impact the ability to reduce or control containment pressure under accident conditions. This event therefore involved no undue risk to the health or safety of the public, and no equipment damage resulted from the service water leak. However, all service water leaks inside of containment are reportable in accordance with I.E. Bulletin No. 80-24.

**CORRECTIVE ACTION:**

No. 13 CFCU motor cooler suffered no damage other than to the head gasket. Because the Unit was operating at power, the entire motor cooler was replaced to expedite the repair. No. 13 CFCU was placed in service, satisfactorily tested and restored to an operable status at 2215 hours, March 21, 1985. No further corrective actions were deemed necessary.

General Manager-
Salem Operations

JLR:tns

SORC Mtg 85-061

PSE&G

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

Salem Generating Station

April 3, 1985

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 85-006-00

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

Sincerely yours,

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

JR:tcs

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