

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1) Salem Generating Station - Unit 2														DOCKET NUMBER (2) 0 5 0 0 0 3 1 1					PAGE (3) 1 OF 0 4	
TITLE (4) Service Water Leak in 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	9	1	8	5	8	5	0	1	9	0	0	0	0 5 0 0 0							
0	9	1	8	5	8	5	0	1	9	0	0	0	0 5 0 0 0							
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8. (Check one or more of the following) (11)																	
1			20.402(b)				20.406(e)				60.73(a)(2)(iv)				73.71(b)					
POWER LEVEL (10)			20.406(a)(1)(i)				60.38(a)(1)				60.73(a)(2)(v)				73.71(c)					
1 0 0			20.406(a)(1)(ii)				60.38(a)(2)				60.73(a)(2)(vi)				X OTHER (Specify in Abstract below and in Text, NRC Form 366A)					
			20.406(a)(1)(iii)				60.73(a)(2)(i)				60.73(a)(2)(vii)(A)				I. E. Bulletin 80-24					
			20.406(a)(1)(iv)				60.73(a)(2)(ii)				60.73(a)(2)(vii)(B)									
			20.406(a)(1)(v)				60.73(a)(2)(iii)				60.73(a)(2)(x)									
LICENSEE CONTACT FOR THIS LER (12)																				
NAME											TELEPHONE NUMBER									
J. L. Rupp - Operations Licensing Engineer											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 NPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD	
B	B	I	P	S	I	F	X	9	9	9	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)

At 2146 hours, September 11, 1985, during routine power operation, unidentified containment sump in-leakage rate exceeded one gallon per minute (1 GPM). Technical Specification Action Statement 3.4.7.2.b was entered at that time, and a Reactor Coolant System (RCS) water inventory balance calculation was initiated. A containment entry was performed, and a service water leak was discovered on No. 23 Containment Fan Coil Unit (CFCU); the leak was not from the RCS. Service water to the fan coil unit was expeditiously isolated, resulting in no accumulation of water inside the containment; i.e., the water was immediately removed by the containment sump pumps. At 0125 hours, September 12, 1985, Action Statement 3.4.7.2.b was terminated, following the completion of the RCS water inventory balance which verified that the RCS unidentified leak rate was less than one GPM. Investigation revealed that the leak was from a pipe nipple on the CFCU vent line. The carbon steel vent line is cement lined to prevent corrosion. However, a portion of the coating was missing at the point of the leak, and the nipple was corroded in this area. The cement coating was apparently damaged during the initial installation of the nipple. A new nipple was installed, service water was restored to the unit and No. 23 CFCU was restored to an operable status at 1745 hours, September 12, 1985.

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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. 23 Containment Fan Coil Unit Vent Line

Event Date: 09/11/85

Report Date: 09/25/85

This report was initiated by Incident Report No. 85-223

**CONDITIONS PRIOR TO OCCURRENCE:**

Mode 1 - Rx Power 100 % - Unit Load 1140 MWe

**DESCRIPTION OF OCCURRENCE:**

At 2146 hours, September 11, 1985, during routine power operation, unidentified containment sump in-leakage rate exceeded one gallon per minute (1 GPM). Technical Specification Action Statement 3.4.7.2.b was entered at that time, and a Reactor Coolant System [AB] water inventory balance calculation was initiated in accordance with Surveillance Procedure SP(0) 4.4.7.2.d. Technical Specification 3.4.7.2 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 3.4.7.2.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 hot standby within six (6) hours and 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.

A containment entry was performed, and a service water [BI] leak was discovered on No. 23 Containment Fan Coil Unit (CFCU) [BK]. Service water to No. 23 CFCU was isolated, the fan coil unit was declared inoperable and Technical Specification Action Statement 3.6.2.3.a was entered at 2300 hours; this action statement requires the inoperable fan coil unit to be restored to an operable status within seven (7) days.

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DESCRIPTION OF OCCURRENCE: (cont'd)

In accordance with the requirements of I.E. Bulletin No. 80-24, the Commission was notified of the event at 2312 hours; notification was in accordance with the requirements of the Code of Federal Regulations, 10CFR 50.72. At 0125 hours, September 12, 1985, Action Statement 3.4.7.2.b was terminated, following the completion of Surveillance Procedure SP(O) 4.4.7.2.d which verified that the RCS unidentified leak rate was less than one (1) GPM.

APPARENT CAUSE OF OCCURRENCE:

Investigation revealed that the lower pipe nipple on the three-quarter inch vent line (the vent line containing valve 23SW63) from the fan coil unit had developed a leak in the area of the weld. The vent line piping and nipple are manufactured from cement lined carbon steel. The cement coating prevents contact with the brackish water of the Service Water System [BI], thereby preventing corrosion of the carbon steel. A portion of the cement coating was missing at the point of the leak, and the nipple was corroded in that area. It is believed that the cement coating was damaged during the initial installation of the nipple.

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 and determined not to be from the pressure boundary or from the RCS. RCS unidentified leakage was verified to be less than one (1) GPM within the time specified by the action requirements. Service water to the fan coil unit was expeditiously isolated, resulting in no accumulation of water inside the containment; i.e., the water was immediately removed by the containment sump pumps. 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.

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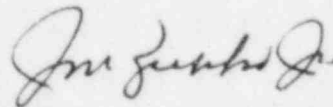
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CORRECTIVE ACTION:

The corroded nipple was removed, and the vent line was inspected to verify that the damage was confined to the nipple. A new nipple was then installed, service water was restored to the unit and No. 23 CFCU was restored to an operable status. Technical Specification Action Statement 3.6.2.3.a was terminated at 1745 hours, September 12, 1985.



General Manager-  
Salem Operations

JLR:tns

SORC Mtg 85-136



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

Salem Generating Station

September 25, 1985

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

Dear Sir:

SALEM GENERATING STATION  
LICENSE NO. DPR-75  
DOCKET NO. 50-311  
UNIT NO. 2  
LICENSEE EVENT REPORT 85-019-00

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,

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

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

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