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

LER 272 / 05 – 002 – 00
Salem Generating Station Unit 1
Facility Operating License DPR- 70
Docket No. 50-272

This Licensee Event Report (LER) entitled "Technical Specification 3.0.3 Required Plant Shutdown – Sample Line Leak" is being submitted pursuant to the requirements of 10CFR 50.73(a)(2)(i)(A).

The attached LER contains no commitments and all corrective actions have been completed.

Should there be any questions regarding this matter please contact Howard Berrick at 856-339-1862.

Sincerely,

A handwritten signature in black ink, appearing to read "Carl Fricker".

Carl Fricker
Salem Plant Manager

Attachment

HGB

C Distribution
LER File 3.7

Handwritten initials "JED2" in black ink.

NRC FORM 366 (6-2004)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0104	EXPIRES: 06/30/2007
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin: 0;">(See reverse for required number of digits/characters for each block)</p>		Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.	

1. FACILITY NAME Salem Generating Station - Unit 1	2. DOCKET NUMBER 05000272	3. PAGE 1 OF 3
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4. TITLE
 Technical Specification 3.0.3 Required Plant Shutdown – Sample Line Leak

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
4	19	2005	2005	002	00	6	20	2005	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)									
10. POWER LEVEL 100	<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2201(d) <input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 20.2203(a)(3)(I) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.36(c)(1)(i)(A) <input type="checkbox"/> 50.36(c)(1)(ii)(A) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.46(a)(3)(ii) <input checked="" type="checkbox"/> 50.73(a)(2)(i)(A) <input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(i)(C) <input type="checkbox"/> 50.73(a)(2)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(ii)(B) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(iv)(A) <input type="checkbox"/> 50.73(a)(2)(v)(A) <input type="checkbox"/> 50.73(a)(2)(v)(B) <input type="checkbox"/> 50.73(a)(2)(v)(C) <input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/> 50.73(a)(2)(ix)(A) <input type="checkbox"/> 50.73(a)(2)(x) <input type="checkbox"/> 73.71(a)(4) <input type="checkbox"/> 73.71(a)(5) <input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A					

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME Howard G. Berrick, Senior Licensing Engineer	TELEPHONE NUMBER (Include Area Code) 856-339-1862
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
X	BQ	PSP	-	No					

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On April 19, 2005 at approximately 0400 hours, an operator identified a small leak of approximately 200 drops per minute at the weld of a 45-degree 3/4-inch elbow that was located immediately upstream of the Boron Injection Tank sample valve 1SJ6. It was determined that characterizing the flaw for a structural integrity evaluation could not be performed in accordance with Technical Specification (TS) 3.4.10.1, Action b, and isolating the leak would have resulted in isolation of all Safety Injection flow via the charging pumps to the Reactor Coolant System. At 2052 hours on April 19, 2005, the Boron Injection Tank flow path was declared inoperable due to the weld failure and TS 3.0.3 was entered. At 2105 hours Salem Unit 1 began a shut down to perform appropriate repairs.

The crack in the pipe weld was caused by stress corrosion cracking that was influenced by the presence of dissolved oxygen in the water located inside the pipe. Corrective actions included replacing the piping with the cracked weld, performing extent of condition walk-downs and modifying the associated Unit 2 Boron Injection Tank sample valve piping during the recent Refueling Outage 2R14 to preclude a similar failure.

This event is being reported pursuant to 10CFR50.73(a)(2)(i)(A), Plant Shutdown Required by Technical Specifications.

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17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

PLANT AND SYSTEM IDENTIFICATION

Westinghouse - Pressurized Water Reactor

High Pressure Safety Injection System / Pipe Spool - {BQ/PSP}*

* Energy Industry Identification System (EIS) codes and component function identifier codes appear in the text as {SS/CCC}.

IDENTIFICATION OF OCCURRENCE

Event Date: April 19, 2005

Discovery Date: April 19, 2005

CONDITIONS PRIOR TO OCCURRENCE

Salem Unit 1 was in Mode 1 (POWER OPERATION) at approximately 100% power at the time of the event. No structures, systems or components were inoperable at the time of the occurrence that contributed to the event.

DESCRIPTION OF OCCURRENCE

On April 19, 2005 at approximately 0400 hours, an operator identified a small leak of approximately 200 drops per minute at the weld of a 45-degree 3/4-inch elbow that was located immediately upstream of local Boron Injection Tank sample valve 1SJ6 {BQ/PSP}.

It was determined that characterizing the flaw for a structural integrity could not be performed in accordance with Technical Specification (TS) Section 3.4.10.1, Action b, and isolating the leak would have resulted in isolation of all Safety Injection flow via the charging pumps to the Reactor Coolant System. At 2052 hours on April 19, 2005, the Boron Injection Tank flow path was declared inoperable due to the weld failure and TS 3.0.3 was entered. At 2105 hours Salem Unit 1 began a shut down to perform appropriate repairs. The unit entered Mode 4 at approximately 0429 hours on April 20, and repairs were completed at approximately 1839 hours on the same day.

This event is being reported pursuant to 10CFR50.73(a)(2)(i)(A), Plant Shutdown Required by Technical Specifications.

CAUSE OF OCCURRENCE

The crack in the pipe weld was caused by stress corrosion cracking that was influenced by the presence of dissolved oxygen in the water located inside the pipe. Fatigue failure was determined not to be a contributing factor to the failed weld.

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PREVIOUS OCCURRENCES

Salem LERs for years 2002 through 2005 were reviewed for similar occurrences of pipe failures.

LER 311/05-002, entitled "Reactor Coolant Instrument Line Through-Wall Leak", was issued June 3, 2005. The failure mechanism of the tubing was chloride-induced transgranular stress corrosion cracking initiated on the outside diameter surface.

Based on this review actions associated with these LERs would not have prevented this occurrence.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no actual safety consequences associated with this event.

The original design function of the 1SJ6 valve was a chemistry local sample line for the Boron Injection Tank (BIT), which had contained a higher concentration of boron. The function of the BIT was changed and the sample was no longer required. The valve was not in any operating procedures, nor was it used during any mode of plant operation.

The leak rate at the cracked weld was well below the Technical Specification limit for identified and unidentified leakage. A subsequent structural integrity analysis showed that the pipe was fully capable of performing its intended function when the crack existed. Therefore, nuclear safety implications are minimal.

The measured leakage was within the analyzed limit for Emergency Core Cooling System leakage outside containment during the recirculation phase of post LOCA recovery, therefore, GDC 19 compliance was maintained.

Based on the above, there was no impact to the health and safety of the public.

A review of this event determined that a Safety System Functional Failure (SSFF) as defined in the Nuclear Energy Institute (NEI) 99-02 did not occur.

CORRECTIVE ACTIONS

1. The Salem Unit 1 piping with the cracked weld was replaced (associated with valve 1SJ6).
2. Salem Units 1 and 2 extents of condition walk-downs were performed to determine the presence of similar leaks. No leaks were found.
3. The Salem 2 piping associated with valve 2SJ6 was modified during the Refueling Outage 2R14 to preclude a similar failure.

COMMITMENTS

This LER contains no commitments.