



MAY 06 2015

LR-N15-0099

10 CFR 50.73

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

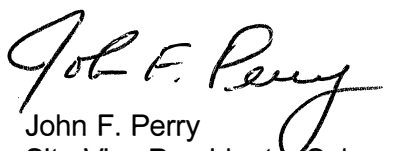
LER 272/2015-003-00  
Salem Nuclear Generating Station Unit 1  
Renewed Facility Operating License No. DPR-75  
NRC Docket No. 50-311

SUBJECT: Completion of Plant Shutdown Required by Technical Specification

The Licensee Event Report, "Completion of Plant Shutdown Required by Technical Specification" is being submitted pursuant to 10 CFR 50.73 (a)(2)(i)(A), "The completion of any nuclear plant shutdown required by the plant's Technical Specifications..."

The attached LER contains no commitments. Should you have any questions or comments regarding the submittal, please contact David Lafleur of Salem Regulatory Assurance at 856-339-1754.

Sincerely,

  
John F. Perry  
Site Vice President - Salem

Attachments (1)

MAY 06 2015

10 CFR 50.73

Page 2  
LR-N15-0099

cc Mr. D. Dorman, Administrator – Region 1, NRC  
Ms. C. Sanders-Parker, Licensing Project Manager – Salem, NRC  
Mr. P. Finney, USNRC Senior Resident Inspector, Salem (X24)  
Mr. P. Mulligan, Manager IV, NJBNE  
Mr. R. Braun, President and Chief Nuclear Officer – Nuclear  
Mr. T. Cachaza, Salem Commitment Tracking Coordinator  
Mr. L. Marabella, Corporate Commitment Tracking Coordinator  
Mr. D. Lafleur, Salem Regulatory Assurance



**LICENSEE EVENT REPORT (LER)**

(See Page 2 for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@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.

<b>1. FACILITY NAME</b> Salem Generating Station – Unit 1	<b>2. DOCKET NUMBER</b> 05000272	<b>3. PAGE</b> 1 OF 3
--	-------------------------------------	--------------------------

**4. TITLE** Plant Shutdown Required by Technical Specifications

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
03	15	2015	2015	- 003	- 000	05	06	15	FACILITY NAME	DOCKET NUMBER <b>05000</b>
									FACILITY NAME	DOCKET NUMBER <b>05000</b>

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

**12. LICENSEE CONTACT FOR THIS LER**

FACILITY NAME <b>David Lafleur, Senior Regulatory Compliance Engineer, Salem Generating</b>	TELEPHONE NUMBER (Include Area Code) <b>(856) 339-1611</b>
--	---

**13. COMPLETE ONE LINE FOREACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
B	BK	MO	W120	Y					

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On 3/8/15, at 1158, the 14 Containment Fan Cooler Unit (CFCU) was declared inoperable following a trip of its low speed breaker on thermal overload protection during a scheduled surveillance test. Unit 1 entered Technical Specification (TS) 3.6.2.3, Action "a." for inoperability of one CFCU. Troubleshooting was unable to identify and correct the cause of the low speed breaker trip within the 7 day TS allowed outage time. Unit 1 entered Mode 3 (Hot Standby) at 1652 on 3/15/15, and Mode 5 (Cold Shutdown) at 1419 on 3/16/15.

The TS required shutdown of Salem Unit 1 was due to the 14 CFCU low speed breaker tripping on startup. Troubleshooting identified failed motor {BK/MO} stator support welds which allowed contact between the rotor and the stator on startup. The 14 CFCU motor was replaced.

This report is made in accordance with 10 CFR 50.73 (a)(2)(i)(A), "The completion of any nuclear plant shutdown required by the plant's Technical Specifications..."



**LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET**

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@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	2. DOCKET	6. LER NUMBER			3. PAGE
Salem Generating Station – Unit 1	05000272	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2015	- 003	- 000	

**NARRATIVE**

**PLANT AND SYSTEM IDENTIFICATION**

Westinghouse - Pressurized Water Reactor {PWR/4}

Containment Fan Cooler Unit {BK}

Containment Fan Cooler Unit Motor {BK/MO}

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

**IDENTIFICATION OF OCCURRENCE**

Event Date: 3/15/15

Discovery Date: 3/15/15

**CONDITIONS PRIOR TO OCCURRENCE**

Salem Unit 1 was in operational Mode 1, operating at approximately 100 percent power. No additional structures, systems or components were inoperable at the time of discovery that contributed to this event.

**DESCRIPTION OF OCCURRENCE**

On 3/8/15, at 1158, the 14 Containment Fan Cooler Unit (CFCU) {BK} was declared inoperable following a trip of its low speed breaker on thermal overload protection, during a scheduled surveillance test. Unit 1 entered Technical Specification (TS) 3.6.2.3, Action "a." for inoperability of one CFCU. TS 3.6.2.3, Action 'a.' states that with one of the required CFCU fans inoperable, the fan must be restored to operable status within 7 days or the plant must be placed in at least Hot Standby (Mode 3) within the following 6 hours and in Cold Shutdown (Mode 5) within the following 30 hours.

Troubleshooting of the 14 CFCU was unable to identify and correct the cause of the low speed breaker trip within the 7 day allowed outage time period. The TS allowed outage time expired on 3/15/15 at 1158 and unit shutdown was initiated at 1227. At 1329, a four hour notification was made to the NRC pursuant to the requirements of 10 CFR 50.72(b)(2)(i) for "The initiation of any nuclear plant shutdown required by the plant's Technical Specifications." Unit 1 entered Mode 3 at 1652 on 3/15/15 and Mode 5 at 1419 on 3/16/15.

This event is reported in accordance with 10 CFR 50.73 (a)(2)(i)(A), "The completion of any nuclear

(01-2014)

**LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Salem Generating Station – Unit 1	05000272	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		2015	- 003	- 000	

**NARRATIVE**

plant shutdown required by the plant's Technical Specifications..."

**CAUSE OF EVENT**

The TS required shutdown of Salem Unit 1 was due to the 14 CFCU low speed breaker tripping on startup. Troubleshooting and vendor analysis determined that the cause of the 14 CFCU motor {BK/MO} failure to start and run in slow speed was due to failed motor stator support welds which allowed contact between the rotor and the stator upon low speed startup.

**SAFETY CONSEQUENCES AND IMPLICATIONS**

This event did not result in any offsite release of radioactivity or increase of offsite dose rates, and there were no personnel injuries or damage to any other safety-related equipment.

Salem's CFCUs are credited in conjunction with the Containment Spray (CS) system to (1) provide heat removal from containment (limit containment peak pressure and temperature), and (2) minimize doses by maintaining containment atmosphere iodine in solution. The Salem design consists of five CFCUs and two CS trains per unit. Salem's design basis requires at least three CFCUs and one CS train for post-accident mitigation. As such, the inoperability of a single CFCU does not result in a loss of safety function.

**SAFETY SYSTEM FUNCTIONAL FAILURE**

A review of this event determined that a Safety System Functional Failure (SSFF) as defined in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline, did not occur. This event did not prevent the ability of a system to fulfill its safety function to either shutdown the reactor, remove residual heat, control the release of radioactive material, or mitigate the consequences of an accident.

**PREVIOUS OCCURRENCES**

A review of Salem Unit 1 and 2 Licensee Event Reports for the previous three years identified no other similar events.

**CORRECTIVE ACTIONS**

1. The 14 CFCU motor was replaced.
2. Rotor to stator air gap measurements were verified to be within acceptable limits on all 5 CFCUs.
3. Preventative Maintenance plans for CFCUs will be changed to include rotor to stator air gap inspections.

**COMMITMENTS**

This LER contains no regulatory commitments.