

PSEG Nuclear LLC

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OCT 10 2019

LR-N19-0097

10 CFR 50.73

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

Salem Nuclear Generating Station Unit 2
Renewed Facility Operating License No. DPR-75
NRC Docket No. 50-311

SUBJECT: LER 311/2019-002-00
Salem Unit 2 Manual Reactor Trip and Auxiliary Feed Water
System Actuation

This Licensee Event Report, "Salem Unit 2 Manual Reactor Trip and Auxiliary Feed Water System Actuation," is submitted pursuant to 10 CFR 50.73(a)(2)(iv)(A).

Should you have any questions or comments regarding the submittal, please contact Mr. Thomas Cachaza of Regulatory Affairs at 856-339-5038.

There are no regulatory commitments contained in this letter.

Sincerely,

A handwritten signature in dark ink, appearing to read "P. Martino", written in a cursive style.

Patrick A. Martino
Salem Plant Manager

Enclosure – LER 311/2019-002-00

cc: USNRC Regional Administrator – Region 1
USNRC NRR Project Manager – Salem
USNRC Senior Resident Inspector – Salem
NJ Department of Environmental Protection, Bureau of Nuclear Engineering
Commitment Coordinator, Salem Generating Station
Corporate Commitment Coordinator, PSEG Nuclear, LLC



LICENSEE EVENT REPORT (LER)

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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Infocollections.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

Salem Generating Station — Unit 2

2. DOCKET NUMBER

05000311

3. PAGE

1 OF 3

4. TITLE

Salem Unit 2 Manual Reactor Trip and Auxiliary Feed Water System Actuation

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
08	11	2019	2019	002	00	10	10	2019	FACILITY NAME	DOCKET NUMBER
										05000

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)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
10. POWER LEVEL 083	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(2)(i)
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)
	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT

Thomas J. Cachaza, Senior Regulatory Compliance Engineer

TELEPHONE NUMBER (Include Area Code)

856-339-5038

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
X	SJ	LCV	308D	Y					

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE)☒ NO

15. EXPECTED SUBMISSION DATE

MONTH DAY YEAR

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

At 0814 on 8/11/19, with Unit 2 at 83 percent power during a planned load reduction, the reactor was manually tripped due to degraded feedwater flow control to the 23 Steam Generator caused by a malfunction of the associated Feedwater Regulating Valve, 23BF19. All systems responded normally post-trip. An actuation of the Auxiliary Feedwater system occurred following the manual reactor trip as expected due to low level in the steam generators. The unit was stabilized in Mode 3.

The failed equipment was repaired.

This event is reportable in accordance with 10 CFR 50.73(a)(2)(iv)(A).

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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
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1. FACILITY NAME	2. DOCKET	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
Salem Generating Station -- Unit 2	05000311	2019	002	00

NARRATIVE**PLANT AND SYSTEM IDENTIFICATION**

Westinghouse-Pressurized Water Reactor (PWR/4)
Main Feedwater System Level Control Valve (SJ/LCV)
Auxiliary Feedwater system (BA)
Steam Generator (SG)

IDENTIFICATION OF OCCURRENCE

Event Date: August 11, 2019
Discovery Date: August 11, 2019

CONDITIONS PRIOR TO OCCURRENCE

Mode 1, operating at 83 percent power

DESCRIPTION OF OCCURRENCE

At 0814 on 8/11/19, with Unit 2 at 83 percent power during a planned load reduction, the reactor was manually tripped due to degraded feedwater flow control to the 23 Steam Generator (SG) caused by a malfunction of the associated Feedwater Regulating Valve, 23BF19 (LCV). All systems responded normally post-trip. An actuation of the Auxiliary Feedwater system (BA) occurred following the manual reactor trip as expected due to low level in the steam generators. The unit was stabilized in Mode 3.

This event is reportable pursuant to 10CFR50.73(a)(2)(iv)(A).

The valve positioner manufacturer is Dresser Masoneilan and the model number is SVI II AP.

CAUSE OF THE EVENT

The direct cause of the failure was the loosening of the positioner lever arm screw and subsequent disengagement of the spring roll pin from the rotating magnet on the assembly due to vibration.

SAFETY CONSEQUENCE AND IMPLICATIONS

No safety consequences are associated with this event. Operators responded appropriately to the degraded feedwater flow control to the 23 steam generator and the subsequent manual reactor trip in accordance with plant procedures. Plant response to the manual reactor trip was normal. All safety systems operated as required.

CORRECTIVE ACTIONS

Corrective actions include:

Repair of the 23BF19 valve positioner (complete).

Replacing the positioner mounting kits to an upgraded model on the feed regulating and feed regulating bypass valves (planned).

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

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Salem Generating Station — Unit 2	05000311	2019	002	00

NARRATIVE (cont.)**PREVIOUS EVENTS**

On 9/14/18, a Salem Unit 2 automatic reactor trip occurred due to high/low steam generator water level caused by failure of the 23BF19 positioner (LER number 311/2018-002-00). The 23BF19 positioner failure was caused by acute, high magnitude vibrations due to changes to the Feed Water Control System. The corrective actions taken were specific to the 2018 event and would not have prevented this event.

Commitments

There are no regulatory commitments contained in this LER.