PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, NJ 08038-0236

MAR 1 8 2010

PSEG
Nuclear LLC

10CFR50.73

LR-N10- 0078

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington DC 20555-001

LER 311/10-002
Salem Nuclear Generating Station Unit 2
Facility Operating License No. DPR-75
NRC Docket No. 50-311

SUBJECT: Automatic Reactor Trip Due to 21 Steam Generator Feedwater Pump Trip and Steam Generator Low Level

This Licensee Event Report, "Automatic Reactor Trip Due to 21 Steam Generator Feedwater Pump Trip and Steam Generator Low Level," is being submitted pursuant to the requirements of the Code of Federal Regulations 10 CFR 50.73 (a)(2)(iv)(A), "any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B)."

The attached LER contains no commitments. Should you have any questions or comments regarding this submittal, please contact Mr. Brian Thomas at 856-339-2022.

Sincerely,

Carl J. Fricker
Site Vice President - Salem

Attachments (1)

IE22
NRR

MAR 1 8 2010

cc Mr. S. Collins, Administrator, Region I, NRC
Mr. R. Ennis, Licensing Project Manager – Salem, NRC
Mr. D. Schroeder, USNRC Senior Resident Inspector, Salem (X24)
Mr. P. Mulligan, Manager IV, NJBNE
L. Marabella, Corporate Commitment Tracking Coordinator
H. Berrick, Salem Commitment Tracking Coordinator

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

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 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.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Salem Generating Station - Unit 2	05000311	1 of 3

4. TITLE Automatic Reactor Trip Due to 21 Steam Generator Feedwater Pump Trip and Steam Generator Low Level

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
01	21	2010	2010	0 0 2	0	03	18	2010		DOCKET NUMBER

9. OPERATING MODE

1

10. POWER LEVEL

78

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☒ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Brian Thomas, Senior Compliance Engineer	(856) 339 -2022

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

14. SUPPLEMENTAL REPORT EXPECTED

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

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
05	28	2010

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

On January 21, 2010, at 1818 hours, the 21 Steam Generator Feedwater Pump (SGFP) tripped. A turbine runback automatically initiated as expected but steam generator level in the 22 Steam Generator (SG) continued to lower. The 22 SG reached the low level reactor setpoint at 1820 hours and an automatic reactor trip occurred. All control rods fully inserted on the trip. All three Auxiliary Feedwater (AFW) pumps started in response to the low SG water level and decay heat was being removed by the steam dumps to the main condenser. Operators entered the emergency procedures for the plant trip and stabilized the plant in Mode 3 (HOT STANDBY).

The cause of the tripping of the 21 SGFP was determined to be an internal wiring short in the SGFP trip control circuit that resulted in a false electrical trip signal. The cause for the wiring short and the resultant low water level in the 22 SG are still under investigation. The results of this investigation will be reported in a supplement to this report by May 28, 2010. Immediate corrective actions consisted of repairing the 21 SGFP trip circuitry. Additional corrective actions will be determined upon completion of the event investigation.

This report is being made in accordance with 10CFR50.73 (a)(2)(iv)(A), "any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B)."

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Salem Generating Station Unit 2	05000311	2010	- 0 0 2 -	00	2 of 3

NARRATIVE

PLANT AND SYSTEM IDENTIFICATION

Westinghouse – Pressurized Water Reactor (PWR/4)

Auxiliary Feedwater System {BA/-}
Main Feedwater System {SJ/-}

* Energy Industry Identification System {EIIS} codes and component function identifier codes appear as {SS/CCC}

IDENTIFICATION OF OCCURRENCE

Event Date: January 21, 2010

Discovery Date: January 21, 2010

CONDITIONS PRIOR TO OCCURRENCE

Salem Unit 2 was in Mode 1 (POWER OPERATION) at ~78% reactor power when the automatic trip occurred. Prior to the reactor trip a turbine runback was in progress due to the trip of the 21 Steam Generator Feedwater Pump (SGFP). There was no equipment out of service that impacted this event.

DESCRIPTION OF OCCURRENCE

On January 21, 2010, at 1818 hours, the 21 Steam Generator Feedwater Pump (SGFP) {SJ/P} tripped. A turbine runback automatically initiated as expected but steam generator level in the 22 Steam Generator (SG) continued to lower. The 22 SG reached the low level reactor setpoint at 1820 hours and an automatic reactor trip occurred. All control rods fully inserted on the trip. All three Auxiliary Feedwater (AFW) pumps {BA/P} started in response to the low SG water level and decay heat was being removed by the steam dumps to the main condenser. Operators entered the emergency procedures for the plant trip and stabilized the plant in Mode 3 (HOT STANDBY).

This report is being made in accordance with 10CFR50.73 (a)(2)(iv)(A), "any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B)."

CAUSE OF OCCURRENCE

The cause of the tripping of the 21 SGFP was determined to be an internal wiring short in the SGFP trip control circuit that resulted in a false electrical trip signal. The cause for the wiring short and the resultant low water level in the 22 SG are still under investigation. The results of this investigation will be reported in a supplement to this report by May 28, 2010.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Salem Generating Station Unit 2	05000311	2010	0 0 2	00	3 of 3

NARRATIVE

PREVIOUS OCCURRENCES

A review for prior similar occurrences will be performed upon completion of the cause investigation.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no safety consequences associated with this event. All safety related equipment functioned as designed in response to this event and the plant was stabilized in Mode 3 in accordance with plant operating procedures.

A review of this event determined that a Safety System Functional Failure (SSFF) as defined in NEI 99-02, Regulatory Assessment Performance Indicator Guidelines, did not occur since the ability to remove residual heat and mitigate the consequences of an accident were maintained.

CORRECTIVE ACTIONS

1. The 21 SGFP trip control circuit was repaired.

Additional corrective actions will be determined upon completion of the event investigation. This report will be supplemented by May 28, 2010.

COMMITMENTS

No commitments are made in this LER.