

J. R. Johnson
Vice President - Farley

**Southern Nuclear
Operating Company, Inc.**
Post Office Drawer 470
Ashford, Alabama 36312-0470
Tel 334.814.4511
Fax 334.814.4728



Energy to Serve Your WorldSM

NL-10-2296

December 14, 2010

Docket No.: 50-348

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

Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2010-004-00
Loss of Refueling Integrity

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i)(B), Southern Nuclear Operating Company is submitting the enclosed Licensee Event Report.

This letter contains no NRC commitments. If you have any questions, please contact Doug McKinney at (205) 992-5982.

Sincerely,

A handwritten signature in black ink, appearing to read "J. R. Johnson", with a long, sweeping horizontal line extending to the right.

J. R. Johnson
Vice President – Farley

JRJ/WDO

Enclosure: Unit 1 Licensee Event Report 2010-004-00

IE22
ARR

U. S. Nuclear Regulatory Commission
NL-10-2296
Page 2

cc: Southern Nuclear Operating Company

Mr. J. T. Gasser, Executive Vice President

Ms. P. M. Marino, Vice President – Engineering

RTYPE: CFA04.054

U. S. Nuclear Regulatory Commission

Mr. L. A. Reyes, Regional Administrator

Mr. R. E. Martin, NRR Project Manager – Farley

Mr. E. L. Crowe, Senior Resident Inspector – Farley

Mr. P. Boyle, NRR Project Manager

**Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2010-004-00
Loss of Refueling Integrity**

Enclosure

Unit 1 Licensee Event Report 2010-004-00

LICENSEE EVENT REPORT (LER)

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 Section (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, NE0B-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

Joseph M Farley Nuclear Plant – Unit 1

2. DOCKET NUMBER

05000 348

3. PAGE

1 OF 3

4. TITLE

Loss of Refueling Integrity

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
10	29	2010	2010	- 004 -	00	12	14	2010	FACILITY NAME	DOCKET NUMBER
										05000
9. OPERATING MODE			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)							
6			<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			<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 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 checked="" 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

J. R. Johnson – Vice President

TELEPHONE NUMBER (Include Area Code)

334 899-5156

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

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

On October 29, 2010 at 14:00, it was determined that Unit 1 was not in compliance with Technical Specification (TS) 3.9.3 in that one penetration providing direct access to the outside atmosphere was not isolated while Core Alterations were in progress. Prior to commencing Core Alterations, refueling integrity was appropriately established per the site procedure on the inside of containment for this penetration. After Core Alterations commenced on October 28, 2010 at 05:35, a scheduled maintenance activity required shifting the integrity boundary to outside containment for this penetration. The governing site procedure for establishing refueling integrity was in error for this penetration and did not recognize the existence of two seal cooler vent valves, configured in series, for the B train Residual Heat Removal (RHR) pump. After the maintenance replacement of the relief valve inside containment, it was discovered that the two seal cooler vent valves were open and provided direct access from the containment atmosphere to the auxiliary building during the time the relief was not installed. It is estimated that refueling integrity was lost for about 10 minutes during the relief valve replacement on October 29, 2010 at approximately 04:30.

The Unit 1 site procedure governing refueling integrity was corrected for both trains of RHR. The corresponding procedure on Unit 2 was also revised.

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE	
Joseph M Farley Nuclear Plant – Unit 1	05000 348	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2	OF 3
		2010	- 004	- 00		

NARRATIVE

Westinghouse -- Pressurized Water Reactor
Energy Industry Identification Codes are identified in the text as [XX]

Description of Event

On October 29, 2010 at 14:00, it was determined that Unit 1 was not in compliance with Technical Specification (TS) 3.9.3 in that one penetration providing direct access to the outside atmosphere was not isolated while Core Alterations were in progress. Prior to commencing Core Alterations, refueling integrity was appropriately established per the site procedure on the inside of containment for this penetration. After Core Alterations commenced on October 28, 2010 at 05:35, a scheduled maintenance activity required shifting the integrity boundary to outside containment for this penetration. Refueling integrity was shifted to outside containment on October 28, 2010 at 23:38. The governing site procedure for establishing refueling integrity was in error for this penetration and did not recognize the existence of two seal cooler vent valves [JM], configured in series, for the B train Residual Heat Removal (RHR) [BP] pump. After the maintenance replacement of the relief valve inside containment, it was discovered that the two seal cooler vent valves were open and provided direct access from the containment atmosphere to the auxiliary building during the time the relief was not installed. It is estimated that refueling integrity was lost for about 10 minutes during the relief valve replacement on October 29, 2010 at approximately 04:30.

Cause of Event

A latent procedure error existed in the site procedure governing refueling integrity when a design change for each RHR pump on each unit installed two additional seal cooler vent valves. Although plant drawings were appropriately updated, the impact to the refueling integrity procedure was not recognized.

Safety Assessment

This event had no adverse effect on the safety and health of the public. There were no Safety System Functional Failures. The seal cooler vent valves, configured in series, were operable and either valve could have been closed to isolate the outside atmosphere from the effects of a fuel handling accident in containment.

A fuel handling accident did not occur during the short period of time refueling integrity was actually lost. All other containment penetrations complied with TS 3.9.3 and at least 23 feet of water was maintained above the reactor vessel flange during Core Alterations. Therefore, the safety and health of the public was not adversely affected during the limited time a direct path to outside atmosphere existed.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Joseph M Farley Nuclear Plant – Unit 1	05000 348	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		2010	- 004	- 00	

NARRATIVE

Corrective Action

On October 29, 2010 at 14:00 when the seal cooler vent valves were discovered to be open, Core Alterations were already temporarily suspended for an unrelated problem with the Spent Fuel Pool bridge crane.

On October 29, 2010 at 15:20, containment integrity was moved back to inside containment when the relief valve was verified installed and intact per the site refueling integrity procedure. Core Alterations were recommenced on October 29, 2010 at 23:44.

The Unit 1 site procedure governing refueling integrity was corrected for both trains of RHR. The corresponding procedure on Unit 2 was also revised.

Additional Information

None