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July 5, 2016

Docket Nos.: 50-364

NL-16-0857

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

Joseph M. Farley Nuclear Plant – Unit 2  
Licensee Event Report 2016-001-00  
Manual Reactor Trip due to High Steam Generator Level

Ladies and Gentlemen:

This Licensee Event Report is being submitted pursuant to the requirements of the Code of Federal Regulations, 10 CFR 50.73(a)(2)(iv)(A) for a manual actuation of the Reactor Protection System and an automatic start of the Auxiliary Feedwater system.

This letter contains no NRC commitments. If you have any questions regarding the submittal, please contact Mr. John McLean at (334) 814-3342.

Respectfully submitted,

C. R. Pierce  
Regulatory Affairs Director

CRP/JWM/cg  
Enclosure: Unit 2 Licensee Event Report 2016-001-00

U. S. Nuclear Regulatory Commission  
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cc: Southern Nuclear Operating Company  
Mr. S. E. Kuczynski, Chairman, President & CEO  
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer  
Mr. M. D. Meier, Vice President – Regulatory Affairs  
Mr. D. R. Madison, Vice President – Fleet Operations  
Mr. B. J. Adams, Vice President – Engineering  
Ms. C. A. Gayheart, Vice President – Farley  
Ms. B. L. Taylor, Regulatory Affairs Manager – Farley  
Mr. J. E. Purcell, Site Operating Experience Coordinator  
RTYPE: CFA04.054

U. S. Nuclear Regulatory Commission  
Ms. C. Haney, Regional Administrator  
Mr. S. A. Williams, NRR Project Manager - Farley  
Mr. P. K. Niebaum, Senior Resident Inspector - Farley

Enclosure

Joseph M. Farley Nuclear Plant – Unit 2  
Unit 2 Licensee Event Report 2016-001-00

Manual Reactor Trip due to High Steam Generator Level



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 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>		<b>2. DOCKET NUMBER</b>	<b>3. PAGE</b>
Joseph M. Farley Nuclear Plant, Unit 2		05000 - 364	1 OF 2

**4. TITLE**  
Manual Reactor Trip due to High Steam Generator 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
05	11	2016	2016	- 001 -	00	07	05	2016		05000-
									FACILITY NAME	DOCKET NUMBER
										05000-

<b>9. OPERATING MODE</b>  1	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b>									
	<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)						
<b>10. POWER LEVEL</b>  29%	<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)						
	<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	John W. McLean IV	TELEPHONE NUMBER (Include Area Code)	334-814-3342
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**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
A	N/A	N/A	N/A	N/A					

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

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

On 5/11/2016 at 0653 CDT, with Unit 2 (U2) at 29 percent power, the Hi-Hi Steam Generator (SG) setpoint was reached. This caused the main feedwater valves to isolate, the running main feedwater pumps to trip, automatic start of the Motor Driven Auxiliary Feed Pumps, and the main turbine to trip automatically. The reactor was manually tripped per procedure. This event is reportable as required by 10 CFR 50.73(a)(2)(iv)(A) due to a manual actuation of the Reactor Protection System and the automatic actuation of the Auxiliary Feedwater system.

The cause of the manual reactor trip was determined to be inadequate control of the feedwater system, leading to an overfilling of the Steam Generators. Corrective actions included additional training provided to the startup control room team on manipulations that affect the feedwater system. Also, more specific guidance on feedwater system operation and control during Startup from Hot Standby to Power Operations will also be incorporated into operating procedures.



**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 NUMBER		3. LER NUMBER		
Joseph M. Farley Nuclear Plant, Unit 2	05000-	364	YEAR	SEQUENTIAL NUMBER	REV NO.
			2016	- 001 -	00

**NARRATIVE**

**A. PLANT AND SYSTEM IDENTIFICATION**

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

**B. DESCRIPTION OF EVENT**

On 5/11/2016 at 0653 CDT, with Unit 2 (U2) at 29 percent power, the Hi-Hi Steam Generator (SG) setpoint was reached. This caused the main feedwater valves to isolate, the running main feedwater pumps to trip, automatic start of the Motor Driven Auxiliary Feed Pumps, and the main turbine to trip automatically. The reactor was manually tripped per procedure.

**C. UNIT STATUS AT TIME OF EVENT**

Unit 2, Mode 1, 29 percent power

**D. CAUSE OF EVENT**

The cause of the manual reactor trip was determined to be inadequate control of the feedwater system, leading to an overfilling of the Steam Generators.

**E. REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT**

This event is reportable as required by 10 CFR 50.73(a)(2)(iv)(A) due to a manual actuation of the reactor protection system and automatic actuation of the auxiliary feedwater system. The reactor was shut down at 0653 and mode 3 was entered to complete the necessary procedural actions. The Motor Driven Auxiliary Feed Pumps also started automatically which is reportable by 10 CFR 50.73(a)(2)(iv)(A). There was no loss of safety function and no radioactive release associated with this event. All required safety systems were available and the plant responded as expected. There were no actual consequences detrimental to the health and safety of the public and is considered to be of very low safety significance.

**F. CORRECTIVE ACTION**

Corrective actions included additional training provided to the startup control room team on manipulations that affect the feedwater system. Also, more specific guidance on feedwater system operation and control during Startup from Hot Standby to Power Operations will also be incorporated into operating procedures.

**G. ADDITIONAL INFORMATION**

Other system affected:  
No systems other than those mentioned in this report were affected by this event.



### LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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Joseph M. Farley Nuclear Plant, Unit 2	05000-	364	YEAR	SEQUENTIAL NUMBER	REV NO.
			2016	- 001 -	00

**NARRATIVE**

**Commitment Information:**

This report does not create any licensing commitments

**Previous Similar Events:**

LER 2010-002-00: Reactor Trip due to Failed Feedwater Regulating Valve Controller