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Regulatory Affairs Director

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January 3, 2014

Docket Nos.: 50-348

NL-13-2545

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

Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2013-003-00
1C Steam Generator Flow Transmitter Inoperable Longer Than Allowed By
Technical Specifications

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i)(B) Southern Nuclear Operating Company hereby submits the enclosed Licensee Event Report. This letter contains no NRC commitments. If you have any questions, please contact Bill Arens at (334) 814-4765.

Sincerely,

A handwritten signature in black ink that reads "C. R. Pierce".

Mr. C. R. Pierce
Regulatory Affairs Director

CRP/WNA

Enclosure: Unit 1 Licensee Event Report 2013-003-00

cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, Chairman, President & CEO

Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer

Ms. C. A. Gayheart, Vice President – Farley

Mr. B. L. Ivey, Vice President – Regulatory Affairs

Mr. D. R. Madison, Vice President – Fleet Operations

Mr. J. G. Horn, Regulatory Affairs Manager – Farley

Mr. W. H. Sims – Performance Improvement Engineer - Farley

RTYPE: CFA04.054

U. S. Nuclear Regulatory Commission

Mr. V. M. McCree, Regional Administrator

Mr. G. E. Miller, NRR Project Manager - Farley

Mr. P. K. Niebaum, Senior Resident Inspector - Farley

Mr. J. R. Sowa, Resident Inspector - Farley

Mr. R. E. Martin, Senior Project Manager - Farley

Joseph M. Farley Nuclear Plant – Unit 1

NL-13-2545

1C Steam Generator Flow Transmitter Inoperable Longer Than Allowed By
Technical Specifications

Enclosure

Unit 1 Licensee Event Report 2013-003-00

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, 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

Joseph M. Farley Nuclear Plant, Unit1

2. DOCKET NUMBER

05000 348

3. PAGE

1 OF 3

4. TITLE

1C Steam Generator Flow Transmitter Inoperable Longer Than Allowed 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 |
| 11 | 5 | 2013 | 2013 | - 003 - | 00 | 1 | 3 | 2014 | FACILITY NAME | DOCKET NUMBER |

| 9. OPERATING MODE | 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---|--|---|-------------------------------------|--|---|--|--|--|---|---|---|--|---|---|--|---|---|---|---|--------------------------------------|--|--------------------------------------|--|--|--|--------------------------------------|---|--|--|--------------------------------|--|---|--|---|
| 1 | <table border="0"><tr><td><input type="checkbox"/> 20.2201(b)</td><td><input type="checkbox"/> 20.2203(a)(3)(i)</td><td><input type="checkbox"/> 50.73(a)(2)(i)(C)</td><td><input type="checkbox"/> 50.73(a)(2)(vii)</td></tr><tr><td><input type="checkbox"/> 20.2201(d)</td><td><input type="checkbox"/> 20.2203(a)(3)(ii)</td><td><input type="checkbox"/> 50.73(a)(2)(ii)(A)</td><td><input type="checkbox"/> 50.73(a)(2)(vii)(A)</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(1)</td><td><input type="checkbox"/> 20.2203(a)(4)</td><td><input type="checkbox"/> 50.73(a)(2)(ii)(B)</td><td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(2)(i)</td><td><input type="checkbox"/> 50.36(c)(1)(i)(A)</td><td><input type="checkbox"/> 50.73(a)(2)(iii)</td><td><input type="checkbox"/> 50.73(a)(2)(ix)(A)</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(2)(ii)</td><td><input type="checkbox"/> 50.36(c)(1)(ii)(A)</td><td><input type="checkbox"/> 50.73(a)(2)(iv)(A)</td><td><input type="checkbox"/> 50.73(a)(2)(x)</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(2)(iii)</td><td><input type="checkbox"/> 50.36(c)(2)</td><td><input type="checkbox"/> 50.73(a)(2)(v)(A)</td><td><input type="checkbox"/> 73.71(a)(4)</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(2)(iv)</td><td><input type="checkbox"/> 50.46(a)(3)(ii)</td><td><input type="checkbox"/> 50.73(a)(2)(v)(B)</td><td><input type="checkbox"/> 73.71(a)(5)</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(2)(v)</td><td><input type="checkbox"/> 50.73(a)(2)(i)(A)</td><td><input type="checkbox"/> 50.73(a)(2)(v)(C)</td><td><input type="checkbox"/> OTHER</td></tr><tr><td><input type="checkbox"/> 20.2203(a)(2)(vi)</td><td><input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)</td><td><input type="checkbox"/> 50.73(a)(2)(v)(D)</td><td>Specify in Abstract below or in NRC Form 366A</td></tr></table> | <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)(vii)(A) | <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 |
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| 10. POWER LEVEL |
|-----------------|
| 100 |

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME

J.M. Farley Nuclear Plant, William. N. Arens – Licensing Supervisor

TELEPHONE NUMBER (Include Area Code)

(334)814-4765

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 |
|-------|--------|-----------|---------------|--------------------|-------|--------|-----------|---------------|--------------------|
| X | JE | FT | F180 | Y | | | | | |

14. SUPPLEMENTAL REPORT EXPECTED

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

15. EXPECTED SUBMISSION DATE

| MONTH | DAY | YEAR |
|-------|-----|------|
| 02 | 21 | 2014 |

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

On November 5, 2013, with Unit 1 operating in Mode 1 at 100% power, Engineering personnel performing normalization calculations using beginning-of-cycle power ascension data identified that 1C Steam Generator Steam Flow Transmitter, FT-495, did not meet the acceptance criteria for normalization. Based on this information, the steam flow instrument was declared inoperable and the required actions of the appropriate Technical Specification were performed. However, since the data utilized in the engineering calculation was obtained on October 31, 2013, it is known that the channel had been inoperable since October 31, 2013. Consequently, the time limits of the applicable Technical Specification required action were not met. This represents a condition prohibited by Technical Specifications and is reportable under 10CFR50.73(a)(2)(i)(B). The steam flow loop was re-calibrated and returned to service on November 6, 2013. The casual analysis of the FT-495 inaccuracy has not been completed. This report will be supplemented upon completion of the cause investigation.

**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 |
| | | 2013 | - 003 | - 00 | |

NARRATIVE

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

Description of Event

Following the initial post-refueling ascension in power, station procedures required the steam flow transmitter loop to be normalized utilizing beginning-of-cycle data obtained during power ascension.

On November 5, 2013 with Unit 1 operating in Mode 1 at 100% power, Engineering personnel performing beginning-of-cycle normalization calculations determined that 1C Steam Generator Steam Flow Transmitter FT-495 [FT] was outside the acceptance criteria for normalization. As a result of the determination by Engineering, FT-495 was declared inoperable and Technical Specification 3.3.2 (Engineered Safety Feature Actuation System Instrumentation) required action for the inoperable channel was entered. The effected bistable was placed in the tripped condition within the required 72 hours from the declaration of inoperability. Applicable 7300 rack modules were subsequently re-calibrated and the high steam flow bistable was verified to trip within the allowable tolerance. FT-495 was returned to operable status on November 6, 2013.

The data utilized in the Engineering calculation was obtained on October 31, 2013. For the purpose of determining reportability, this date is considered the point of discovery. Consequently, the completion times associated with the applicable Technical Specification required actions were not met. This represents an operation or condition prohibited by Technical Specifications and is reportable under 10CFR50.73(a)(2)(i)(B).

Cause of Event

Causal analysis of the out-of-tolerance condition identified on November 5, 2013 is being performed. This Licensee Event Report will be supplemented upon the completion of the causal analysis.

Safety Assessment

Steam Flow Transmitter FT-495 performs a safety function by providing a high steam flow input to main steam line isolation logic circuitry. Each of the three steam generators is equipped with two redundant steam flow transmitters. A high steam flow signal from one of the two steam flow transmitters on two of the three steam generators coincident with a low-low reactor coolant system (RCS) average temperature signal from two of three RCS temperature channels generates a main steam line isolation signal that causes closure of all main steam line isolation valves.

During the time periods of the FT-495 out-of-tolerance condition, the redundant steam flow transmitter remained capable of performing its safety function. Therefore, sufficient inputs to the

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CONTINUATION SHEET**

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NARRATIVE

main steam line isolation circuitry were available to actuate a main steam line isolation at the proper setpoint. At no time was there a loss of safety function.

Another means of providing a main steam line isolation in the event of a steam line break is the low-steam-pressure main steam line isolation signal. This function remained fully capable of performing the main steam line isolation function during the periods that FT-495 was known to be inoperable.

Based on the above considerations and on the FT-495 setpoint being outside the allowable tolerance but otherwise functional, this condition is considered to have low safety significance.

Corrective Action

An immediate corrective action of rescaling FT-495 loop was performed. The loop was declared operable on November 6, 2013. Upon completion of the causal analysis, this Licensee Event Report will be supplemented with further corrective actions.

Additional Information

A review of previously submitted Licensee Event Reports identified two similar previous events on Unit 2, both were reported in Farley Unit 2 LER 2013-001-00, in which the 2C Steam Generator Flow Transmitter FT-494 was inoperable longer than allowed by Technical Specifications.