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Docket Nos.: 50-348
50-364

NL-16-0345

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

Joseph M. Farley Nuclear Plant – Units 1 and 2
Response to Follow-up Request for Additional Information for
RHR Autoclosure Interlock Function Elimination LAR

Ladies and Gentlemen:

By letter dated August 31, 2015, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15261A673) and supplemented by letter dated January 28, 2016 (ADAMS Accession No. ML16028A055) Southern Nuclear Operating Company (SNC) submitted a license amendment request (LAR) to eliminate the Residual Heat Removal (RHR) autoclosure interlock and its associated Surveillance Requirement for Joseph M. Farley Nuclear Plant (Farley), Units 1 and 2.

By letter dated February 16, 2016, the Nuclear Regulatory Commission (NRC) sent SNC a follow-up request for additional information (RAI). The enclosure to this letter provides the SNC response to the NRC follow-up RAI.

This letter contains no new NRC commitments. If you have any questions, please contact Ken McElroy at (205) 992-7369.

Mr. C. R. Pierce states he is Regulatory Affairs Director of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and, to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

C. R. Pierce

C. R. Pierce
Regulatory Affairs Director

CRP/JMC/lac

Sworn to and subscribed before me this 11th *day of* March, *2016.*

Notary Public

My commission expires: 10-8-2017

Enclosure: Response to Follow-up Request for Additional Information

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. M. D. Meier, Vice President – Regulatory Affairs
Mr. D. R. Madison, Vice President – Fleet Operations
Mr. B. J. Adams, Vice President – Engineering
Ms. B. L. Taylor, Regulatory Affairs Manager - Farley
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

Alabama Department of Public Health
Dr. T. M. Miller, MD, State Health Officer

Joseph M. Farley Nuclear Plant – Units 1 and 2
Response to Request for Additional Information for
RHR Autoclosure Interlock Function Elimination LAR

Enclosure

Response to Follow-up Request for Additional Information

Enclosure to NL-16-0345
Response to Follow-up Request for Additional Information

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Original Request for Additional Information (RAI) #1

Section 2.3, "Procedural Changes," of the WCAP-11736, "Residual Heat Removal System Autoclosure Interlock Removal Report for the Westinghouse Owners Group," NRC staff safety evaluation report (SER) states that WCAP-11736 proposes generic procedural requirements. The SER also states that "the staff agrees with this generic guidance assuming a surveillance procedure for the [Residual Heat Removal (RHR) System] suction valve alarms is added to ensure these alarms remain operable." Provide a description of the mentioned surveillance procedure for the new RHR System suction valve alarm at Farley.

Follow-up RAI #1

The RAI 1 response describes the new annunciator response procedure. However, RAI 1 asked for a description of the associated surveillance procedure for the new RHR System suction valve alarm to ensure that the alarm will remain functional. Describe the relevant surveillance procedure (e.g. calibration procedure) that will apply to the new alarm to ensure that it will remain functional.

SNC Response to Follow-up RAI #1

The current RHR system for Farley includes an autoclosure interlock (ACI) which provides automatic closure for the RHR system suction isolation valves on high Reactor Coolant System (RCS) pressure. The LAR submitted by SNC proposes to eliminate the RHR ACI. Although the RHR System will still be protected from overpressure by the RHR suction relief valves, once the RHR system ACI is removed, an alarm will be installed, which will identify to the operators that the RHR system suction valves are open and the RCS pressure exceeds the alarm setpoint.

The RCS pressure transmitters (PT) that currently provide the pressure signal for the RHR ACI and will subsequently provide the pressure signal for the new alarms are PT-402 and PT-403. The circuitry for the ACI will be removed completely and reused for the new alarm. There are calibration procedures for each of the pressure transmitters for each unit: FNP-1-STP-201.16, FNP-1-STP-201.17, FNP-2-STP-201.16, and FNP-2-STP-201.17. The calibration procedures are performed on a frequency of 547 days.

There is currently a section in each of these procedures that verifies that the expected response (bistable change of state) occurs when RCS pressure approaches the current ACI setpoint. These sections will be updated via the Design Change process to ensure that instead of valve autoclosure at the ACI setpoint that the new alarm comes in at the desired setpoint.

Based on the WCAP-11736 guidance, the alarm will actuate if an RHR system suction valve is open and the RCS pressure reaches the alarm setpoint. The alarm setpoint will be established between the RHR open permissive setpoint and the RHR system design pressure minus the RHR system pump head pressure. Farley is currently in the process of determining what the new alarm setpoint will be in order to complete their Design Change Package (DCP). Once the DCP is complete, impact reviews will be performed by all affected departments. Maintenance will be required to update their calibration procedures and will have an item entered into the Corrective Action Program to ensure that the procedures are updated prior to DCP implementation. Pending approval of the LAR, the current schedule is to implement the DCP to remove the RHR ACI on Unit 1 during the Fall 2016 outage (1R27) and on Unit 2 during the Fall 2017 outage (2R25).

Copies of the current Farley calibration procedures are available upon request.