



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 17, 2015

Mr. C. R. Pierce  
Regulatory Affairs Director  
Southern Nuclear Operating Co., Inc.  
P.O. Box 1295, Bin 038  
Birmingham, AL 35201-1295

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 - REQUEST FOR  
ADDITIONAL INFORMATION (CAC NOS. MF6687 AND MF6688)

Dear Mr. Pierce:

By letter dated August 31, 2015, the Southern Nuclear Operating Company, Inc. (SNC), submitted a request to revise the Joseph M. Farley Nuclear Plant, Units 1 and 2, Technical Specifications. The proposed change would eliminate the Residual Heat Removal autoclosure interlock and its associated Surveillance Requirement.

The NRC staff has determined that additional information is needed as discussed in the Enclosure. We request that SNC respond within 45 days of the date of this letter. Please note that the NRC staff's review is continuing and further requests for information may be developed.

Sincerely,

A handwritten signature in cursive script that reads "Shawn Williams".

Shawn Williams, Project Manager  
Plant Licensing Branch, II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-348, 50-364

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

DOCKET NOS. 50-348 AND 50-364

By letter dated August 31, 2015 (Agencywide Documents Access and Management System Accession No. ML15261A673), the Southern Nuclear Operating Company, Inc., submitted a request to revise the Joseph M. Farley Nuclear Plant, Units 1 and 2, Technical Specifications. The proposed change would eliminate the Residual Heat Removal autoclosure interlock and its associated Surveillance Requirement. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the request and determined that additional information is necessary to complete the review.

RAI No. 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.

RAI No. 2:

The license amendment request discusses a new alarm that will actuate if any RHR System suction isolation valve is open and the reactor coolant system pressure is greater than the open permissive setpoint and less than the RHR System design pressure minus the RHR pump head pressure at minimum flow. NUREG-0800, Branch Technical Position (BTP) 5-4, "Design Requirements of the Residual Heat Removal System," contains an RHR System isolation requirement that states: "The valves should have independent diverse interlocks to protect against one or both valves being open during a [reactor coolant system] increase above the design pressure of the RHR system, to the extent that such interlocks will not degrade high system reliability during shutdown operations (see Generic Letter 88-17)." Additionally, Section 2.5, "Safety Function of the Autoclosure Interlock," of the WCAP-11736 SER also highlights this concern: "The ACI function is to preclude conditions that could lead to a LOCA outside of containment, Event V, due to operator error. The sequence that concerns the staff in particular is that case in which the operator closes one of the isolation valves and not the other..."

- a. Since a level of diversity is being removed by removing the ACI, how will plant procedures ensure that operators will take appropriate action when the alarm is received in the control room?
- b. What additional operator training will be required prior to implementation of the revised Technical Specifications?

Enclosure

RAI No. 3:

The RHR System provides a low temperature overpressure protection safety function during shutdown and refueling operations by providing pressure relief to the pressure relief tank inside containment. Previously, power lockout of the RHR System containment isolation valves was implemented at FNP to reduce the frequency of inadvertent valve closure due to the presence of the ACI. With the removal of the ACI circuitry, FNP is also removing the requirement to lockout power to the RHR System containment isolation valves below a reactor coolant system temperature of 180 degrees Fahrenheit as discussed in the license amendment request. LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP) System," requires that two RHR suction relief valves with setpoints less than or equal to 450 pounds per square inch gauge be available or alternatively that the reactor coolant system be depressurized with a reactor coolant system vent greater than or equal to 2.85 square inches in Modes 4, 5, and 6. The presence of LCO 3.4.12 does not inherently prevent the closure of the two RHR suction relief valves during Modes 4, 5, and 6; appropriate plant procedures are also required to ensure that the LCO will be met. With power no longer being removed and manual valve closure possible, describe plant procedures associated with the control of the RHR suction relief valves to provide assurance that inadvertent isolation will not occur during Modes 4, 5, and 6.

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