



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

September 25, 2012

Mr. M. J. Ajluni  
Nuclear Licensing Director  
Southern Nuclear Operating Company, Inc.  
40 Inverness Center Parkway  
Post Office Box 1295, Bin - 038  
Birmingham, AL 35201-1295

**SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 – ACCEPTANCE REVIEW – UNACCEPTABLE WITH OPPORTUNITY TO SUPPLEMENT (TAC NOS. ME9293 AND ME9294)**

Dear Mr. Ajluni:

By letter dated August 20, 2012, Southern Nuclear Operating Company (SNC) submitted a license amendment request (LAR) request for the Joseph M. Farley Nuclear Plant, Units 1 and 2 (FNP). The LAR would revise the condensate storage tank (CST) level requirement specified in Technical Specification (TS) surveillance requirement 3.7.6.1. The change is related to the calculational basis for the level with respect to potential vortexing and assumptions regarding heat loads on CST volume.

The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this LAR. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to continue its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

M. Ajluni

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The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the NRC staff to make an independent assessment regarding the acceptability of the LAR request in terms of regulatory requirements and the protection of public health and safety and the environment. In order to make the application complete, the NRC staff requests that SNC supplement the application to address the information requested in the enclosure within thirty (30) days of the date of this letter. This will enable the NRC staff to continue its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC staff will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the NRC staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with you and your staff on September 13, 2012.

Sincerely,



Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

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REQUEST FOR SUPPLEMENTAL INFORMATION

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 (FNP)

SOUTHERN NUCLEAR OPERATING COMPANY (SNC)

DOCKET NO. 50-348 AND 50-364

The U.S. Nuclear Regulatory Commission staff has conducted an acceptance review of the license amendment request (LAR) dated August 20, 2012, regarding an increase in the Condensate Storage Tank (CST) water volume (Agencywide Documents Access and Management System Accession No. ML12234A743). The NRC staff has concluded that the following information is necessary to enable the NRC staff to make an independent assessment regarding the acceptability of the LAR in terms of regulatory requirements and the protection of public health and safety and the environment:

- 1) Regarding Standard Review Plan (SRP) Branch Technical Position (BTP) Reactor Systems Branch (RSB) 5.1, the LAR provides neither the assumption changes, nor the new BTP RSB 5.1 analysis reflecting the change to assumptions for determination of the revised CST water volume.

Clarify whether the current analysis satisfying BTP RSB 5.1 is changed in support of the LAR. If the current analysis is changed, provide the new analysis for NRC staff review.

Please also clarify whether the Technical Specifications (TSs) for the CST water is based on the BTP RSB 5.1 (natural circulation cooldown analysis) or not. If not, specify the basis (i.e., the plant-specific analysis) supporting the TSs and provide information to justify the associated TS basis.

- 2) The licensee stated in the LAR that the revised calculation for the CST minimum volume is based upon additional assumptions regarding heat loads as referenced from the Component Design Basis Inspection report. The licensee also stated that plant events involving the usage of the CST were reanalyzed with the revised calculation to identify the most limiting event to arrive at the new CST minimum volume amount.

Provide additional information on how the new heat load assumptions were factored into the revised calculation. Also provide additional information on all of the events analyzed with the revised calculation for the CST to verify how the licensee identified the most limiting event involving the CST.

- 3) The LAR states that additional consideration regarding vortexing was applied during the revised calculation of the CST minimum volume. However, the LAR did not describe specific considerations that factored into changes made to the referenced revised calculations.

Enclosure

Provide additional information to describe how the licensee factored in the vortexing effects as part of the revised calculation for the CST volume.

- 4) The LAR is incomplete and the staff cannot initiate a technical review until, at a minimum, the following is provided:
- Calculation of post-trip water requirements.
  - Information that supports an independent evaluation of the level necessary to prevent vortexing.
  - Provide the licensee's determination of the level that prevents vortexing.
  - Applicable updated Final Safety Analysis Report sections.

M. Ajluni

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The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the NRC staff to make an independent assessment regarding the acceptability of the LAR request in terms of regulatory requirements and the protection of public health and safety and the environment. In order to make the application complete, the NRC staff requests that SNC supplement the application to address the information requested in the enclosure within thirty (30) days of the date of this letter. This will enable the NRC staff to continue its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC staff will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the NRC staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with you and your staff on September 13, 2012.

Sincerely,

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Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

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