



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

August 14, 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 (TAC NOS. MF5317 AND MF5318)

Dear Mr. Pierce:

By letter dated November 24, 2014, the Southern Nuclear Operating Company, Inc. (SNC, the licensee) submitted a request to revise the Joseph M. Farley Nuclear Plant, Units 1 and 2, Technical Specifications to adopt various previously approved Technical Specifications Task Force Travelers and two changes not associated with Travelers.

The U.S. Nuclear Regulatory Commission (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 black ink 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.

LICENSE AMENDMENT REQUEST TO ADOPT PREVIOUSLY NRC-APPROVED

GENERIC TECHNICAL SPECIFICATION CHANGES AND OTHER CHANGES

DOCKET NOS. 50-348 AND 50-364

By letter dated November 24, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14335A623), Southern Nuclear Operating Company (SNC, the licensee), submitted a license amendment request (LAR) which proposed changes to its Technical Specifications (TS) for Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2. Per the licensee, "the requested amendment will adopt various previously NRC-approved Technical Specifications Task Force (TSTF) Travelers." TSTF Travelers are generic changes to the Improved Standard Technical Specifications (STSS). The licensee further states, "these Travelers were chosen to increase the consistency between the FNP Technical Specifications, the Improved Standard Technical Specifications and the Technical Specifications of the other plants in the SNC fleet."

The NRC staff has reviewed the request and determined that additional information is necessary to complete the review.

**RAI No. 1, TSTF-247:**

This RAI is with respect to TSTF-247 and TS 3.4.11, Condition F. The proposed changes provide separate Condition entry for each powered operated relief valve (PORV) and each block valve. In explaining the difference between the plant-specific justification and the approved traveler justification, the licensee states, in part, Condition F is modified to apply when both block valves are inoperable, and the existing Required Actions are modified to not require that the PORVs be placed in manual control under these circumstances. The basis for this is that if the block valves are not restored within 2 hours, a plant shutdown is required, and the PORVs will be needed for low temperature overpressure protection (LTOP). Therefore, the PORVs should not be placed in manual control. The PORVs are not currently credited as part of the FNP LTOP strategy. TSTF-247-A is being implemented to preserve the PORVs as a potential defense-in-depth LTOP option for future use.

Clarify the justification regarding the fact that the PORVs are not currently credited as part of the FNP LTOP strategy and that the applicability of FNP limiting condition for operation (LCO) 3.4.11 is "MODES 1, 2 and 3," and not "LTOP" conditions; LTOP does not appear relevant to this LCO.

Enclosure

**RAI No. 2, TSTF-283:**

This RAI is with respect to TSTF-283, and SR 3.8.4.7 and SR 3.8.4.8. In adopting TSTF-283 on modifying Mode restriction notes, the applicant does not request to adopt the modification the surveillances related to the battery: SR 3.8.4.7 on Battery capacity, and SR 3.8.4.8 on Battery discharge test. The reason for not requesting these changes is neither discussed nor justified.

Justify not adopting the appropriate TSTF-283 changes on modifying Mode restriction notes to SR 3.8.4.7 and SR 3.8.4.8.

**RAI No. 3, TSTF-284:**

This RAI is with respect to TSTF-284 and the Bases to SR 3.4.11.1. In adopting TSTF-284 on "Met vs Performed" clarifications, the first part of Westinghouse Owner's Group (WOG) Insertion A is not included in the proposed change to Bases for SR 3.4.11.1. Missing is the sentence that states, "Opening the block valve in this condition increases the risk of an unisolable leak from the RCS since the PORV is already inoperable."

Include the complete Insertion A to the SR 3.4.11.1 Bases.

**RAI No. 4, TSTF-308:**

This RAI is with respect to TSTF-308 and TS 5.5.4.e. The two sentences that replace the text in TS 5.5.4.e are accurate and align with NUREG 1431. However, the second sentence should end with a semi-colon instead of a period to ensure the correct formatting and to align the text with the STS.

**RAI No. 5, TSTF-312:**

This RAI is with respect to TSTF-312 and LCO 3.9.3. In explaining the difference between TSTF-312-A requirements and the proposed changes to FNP TS 3.9.3 and its associated bases, the licensee states that LCO 3.9.3.b was previously amended to allow the personnel and emergency personnel airlocks to remain open during CORE ALTERATIONS or movement of irradiated fuel assemblies within the containment, and the scope of this previous amendment (FNP Amendment 165/157, dated September 30, 2004) overlaps the scope of TSTF-312-A, resulting in the statement of LCO 3.9.4 and its associated bases being different from those presented in TSTF-312-A.

The NRC staff reviewed the referenced Amendment 165/157, and noted that this Amendment addresses the allowance for the open equipment hatch, not the open air locks.

The NRC staff requests that the licensee identify the FNP license amendment that approved allowing the personnel airlocks to remain open during CORE ALTERATIONS and during movement of irradiated fuel assemblies within the containment.

**RAI No. 6, TSTF-315:**

This RAI is with respect to TSTF-315 and 3.1.8. The text added to the LCO statement in TS 3.1.8 and the corresponding Bases reads "...may be reduced to 3, provided: ..." The text in the STS reads "...may be reduced to 3 required channels, provided: ..." This is to ensure the accuracy and completeness of the TS and the Bases and to align the TS and Bases with the STS.

The NRC staff requests that the licensee justify the deviation from the STS, NUREG 1431.

**RAI No. 7, TSTF-343:**

This RAI is with respect to TSTF-343 and TS 5.5.17. In explaining the difference between TSTF-343-A changes in STS requirements and the proposed changes to FNP TS 5.5.17 requirements, the licensee states that the changes identified for FNP TS 5.5.6, "Pre-stressed Concrete Containment Tendon Surveillance Program," and conforming changes to the TS Bases for SR 3.6.1.2 and a reference to RG 1.35 are not adopted because those changes are already reflected in the current FNP TS and Bases. The applicable FNP license amendment numbers for those changes were not stated in the application.

The NRC staff requests that the licensee identify the applicable FNP license amendments that approved those changes for incorporation into the FNP TS.

**RAI No. 8, TSTF-349:**

This RAI is with respect to TSTF-349 and LCO 3.9.6 Bases statement. LCO 3.9.6 Bases statement is revised to add a second Note permitting all RHR pumps to be de-energized for no more than 15 minutes when switching from one RHR train to another. The NRC staff noted the following in the revised Bases discussion of the new LCO Note:

In the second sentence of the added paragraph, parentheses are placed around "and the core outlet temperature is limited to > 10 degrees F below saturation temperature" for no apparent reason. In accordance with the Writer's Guide, parentheses are used to indicate clarifying details for the preceding text.

The NRC staff requests that the licensee explain the use of parentheses in this case.

**RAI No. 9, TSTF-371:**

This RAI is with respect to TSTF-371, and SR 3.3.1.2 and SR 3.3.1.3. In TSTF-371 Surveillance 3.3.1.2 is revised to move the requirement to adjust the power range channels if the calorimetric calculated power exceeds the power range indicated power by more than +2% of Rated Thermal Power (RTP) from a Surveillance Note to the Surveillance itself. Surveillance 3.3.1.3 is revised to move the requirement to adjust the Nuclear Instrumentation System (NIS) channel if the absolute difference between the incore detector measurement of Axial Flux Difference (AFD) and the NIS AFD indication is greater than or equal to 3% from a Surveillance Note to the Surveillance itself.

The technical part of TSTF-371 was approved on a plant-specific basis for FNP, Units 1 and 2, TS SR 3.3.1.2 and SR 3.3.1.3 in 1999. The present LAR proposes to revise the presentation of these Surveillance Requirements to match the final version of TSTF-371-A approved by NRC in 2002.

- This LAR involves an editorial change in presentation of the requirement to adjust [increase] Nuclear Instrument System (NIS) power range [neutron flux] channel [output] to match calorimetric heat balance calculation [results] if the calorimetric heat balance calculation [results] exceed the power range [neutron flux] channel output by more than +2% RTP. The requirement is moved from surveillance column Note 1 to the surveillance statement, consistent with the TSTF change.

The change deletes SR 3.3.1.2 Note 1, which states:

“Adjust NIS channel if calorimetric calculated power exceeds NIS indicated power by more than +2% RTP.”

The change modifies the surveillance statement of SR 3.3.1.2 as follows:

“Compare results of calorimetric heat balance calculation to power range channel output. Adjust power range channel output if calorimetric heat balance calculation results exceed power range channel output by more than +2%.”

RAI question 1: Request licensee to insert “RTP” at end of surveillance statement.

- This LAR involves an editorial change in presentation of the requirement to adjust [increase or decrease] Nuclear Instrument System (NIS) power range [neutron flux] channel output if the absolute difference between the NIS AXIAL FLUX DIFFERENCE (AFD) and the incore [neutron flux] detector measurements [of AFD] are greater than or equal to 3% RTP. The requirement is moved from surveillance column Note 1 to the surveillance statement, consistent with the TSTF change.

The change deletes SR 3.3.1.3 Note 1, which states:

“Adjust NIS channel if absolute difference is  $\geq$  3%.”

The change modifies the surveillance statement of SR 3.3.1.3 as follows:

“Compare results of the incore detector measurements to Nuclear Instrumentation System (NIS) AFD. Adjust NIS channel if difference is  $\geq$  3%.”

RAI question 2: Request licensee to insert “RTP” at end of surveillance statement; and insert “absolute” before “difference” in second sentence.

**RAI No. 10, Changes related to ISTS Adoption #1:**

When the licensee for FNP, Units 1 and 2, converted the plant-specific custom TS to plant-specific improved TS in about 1997, it elected not to increase the 24-hour Completion Time to restore to operable status an inoperable channel of the P-4 (Reactor Trip) ESFAS interlock, improved TS 3.3.2 Function 7.b, to a Completion Time of 48 hours, which had been the requirement in Westinghouse STS since 1981. In this LAR, the licensee proposes to adopt the 48 hour Completion Time by changing the specified Condition for this Function in Table 3.3.2-1 from Condition C to Condition F.

The justification for the change presented in LAR letter Enclosure 1 is essentially to achieve consistency with the improved STS. The licensee is requested to provide a technical safety basis for this change that is consistent with the FNP, Unit 1 and 2 licensing basis, including the design of the Reactor Trip System (RTS) and Engineered Safety Feature Actuation System (ESFAS) instrumentation, the FSAR Chapter 15 safety analyses, and the effects of an inoperable P-4 channel on the affected ESFAS Functions and ESF systems in the event of a reactor trip.

**RAI No. 11, Vogtle Consistency Change #1:**

The "Vogtle Consistency Change #1" to revise the Completion Time from 4 hours to 8 hours for Required Action A.1, to restore seal injection flow, is not consistent with the STS, nor is the change adequately justified. Similarly, the time provided by the NOTE to SR 3.5.5.1 allowing 8 hours rather than 4 hours for flow to stabilize, is not consistent with the STS nor is it adequately justified.

Justify this proposed change, and propose this generic TS change through the TSTF for review and approval.

**Discrepancy noted during the review of TSTF 315 but not related to TSTF315:**

While reviewing the adoption of TSTF 315, the NRC staff noted a discrepancy in the Bases of TS 3.1.8.

The LCO statement for TS 3.1.8 lists three conditions that must be met in order to perform Physics Tests.

Statement "a" reads "THERMAL POWER is  $\leq$ 5% RTP;".

Statement "c" reads "RCS lowest loop average temperature is  $\geq$ 531°F."

While reviewing the mark-up pages provided for the Bases of TS 3.1.8, the NRC staff noted that those same statements do not read the same as in the TS.

Statement "a" reads "THERMAL POWER is =5% RTP; and".

Statement "c" reads "RCS lowest loop average temperature is =531°F."

The Bases replace the inequality signs with equal signs. This is inconsistent with the LCO statements for TS 3.1.8, and is also inconsistent with the STS, NUREG 1431. Justify the inconsistency.

**Regulatory Justification**

TSs are prepared in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Sections 50.36 and 50.36a. 10 CFR 50.36 sets forth requirements for TSs to be included as part of the operating license for a nuclear power facility.

NUREG-1431, "Standard Technical Specifications-Westinghouse Plants," Rev. 4, provides NRC guidance on format and content of TSs as one acceptable means to meet 10 CFR 50.36 requirements.

Standard Review Plan Section 16.0, Part III.2.A states, in part, "when reviewing a difference between the proposed TS provision and the reference TS provision, verify that the applicant's written technical or administrative reasoning in support of the difference is logical, complete, and clearly written."

August 14, 2015

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Shawn Williams, Project Manager  
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