



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

August 18, 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. MF6118 AND MF6119)

Dear Mr. Pierce:

By letter dated April 13, 2015, 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 consistent with U.S. Nuclear Regulatory Commission (NRC)-approved Technical Specification Task Force Traveler 432-A, Revision 1, "Change in Technical Specifications End States, WCAP-16294."

The NRC staff has determined that additional information is needed as discussed in the Enclosure. We request that SNC respond within 30 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 blue 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.

ADOPTION OF TSTF-432, REVISION 1

"CHANGE IN TECHNICAL SPECIFICATIONS END STATES (WCAP-16294)"

DOCKET NOS. 50-348 AND 50-364

By letter dated April 13, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15103A656), Southern Nuclear Operating Company (SNC, the Licensee) submitted a License Amendment Request (LAR) which proposed changes to its Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2 Technical Specifications (TS). According to the licensee, the proposed amendment would modify the TS requirements for end states associated with the implementation of the approved Technical Specification Task Force (TSTF) traveler TSTF-432-A, Revision 1, "Change in Technical Specifications End States, WCAP-16294," dated November 29, 2010 (ADAMS Accession No. ML103360003). TS Actions End States modifications would permit, for some systems, entry into a hot shutdown (Mode 4) end state rather than a cold shutdown (Mode 5) end state. 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 2.2 in the licensee's application provides SNC's proposed variations or deviations from the Westinghouse topical report, the TS changes described in the TSTF-432-A, Revision 1, or the NRC staff's model safety evaluation published in the *Federal Register* on May 11, 2012 (77 FR 27814). Option # 17 discusses the licensee's proposed change to TS LCO 3.7.10, Condition C as below:

"ISTS TS 3.7.10, Control Room Emergency Filtration System, Condition C (Farley TS 3.7.10, Control Room, Condition C), provides an additional end state requirement when two Control Room Emergency Filtration System (CREFS) trains are inoperable for reasons other than inoperable control room boundary that is not provided in ISTS TS 3.7.10. With two CREFS trains inoperable under these conditions, ISTS TS 3.7.10 would require entry into LCO 3.0.3, which would then require that the unit be brought to MODE 3 within 7 hours, and MODE 5 within 37 hours. Under these same conditions, with two CREFS trains inoperable, Farley TS 3.7.10, Condition C, allows 6 hours to be in MODE 3, and 36 Hours to be in MODE 5. Adoption of the end state Completion Times for this additional requirement is consistent with those evaluated in WCAP-16294, Revision 1, and provided in TSTF-432-A, Revision 1. The Completion Time for Required Action C.2 is revised to reflect these values."

Enclosure

The NRC staff's review of the licensee's Option # 17 above, determined that the proposed end state change for a portion of TS limiting conditions for operation (LCO) 3.7.10, CONDITION C, i.e., loss of both CREFS trains, (identified by the licensee as an additional end state in Option 17) is not consistent with the Improved Technical Specifications (ITS) that were approved in TSTF-432, as explained below:

ITS LCO 3.7.10 CONDITION	Farley TS LCO 3.7.10 CONDITION
A. One CREFS train inoperable.	A. One CREFS train inoperable.
B. Two CREFS trains inoperable due to inoperable control room boundary in MODE 1, 2, 3, or 4.	B. CRE inoperable
<p>C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4)</p> <p>TSTF-432 approved change:</p> <p><u>Be in Mode 3 in 6 hours and MODE 4 in 12 hours</u></p>	<p>C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4</p> <p><u>OR</u></p> <p>Two CREFS trains inoperable in MODE 1, 2, 3, or 4.</p> <p><u>Current Required Action: Be in MODE 3 in 6 hours and MODE 5 in 36 hours</u></p> <p><u>Proposed Required Action: Be in Mode 3 in 6 hours and MODE 4 in 12 hours</u></p>
<p>F. Two CREFS trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B.</p> <p>End-state TSTF not applied to REQUIRED ACTION:</p> <p>F.1 Enter LCO 3.0.3.</p>	No such Condition/Required Action

The safety function for the CREFS is to provide a protected environment from which occupants can control the unit following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. A loss of both trains will result in a loss of its intended safety function and the unit will be in a condition outside of its accident analysis.

Hence, and as shown above, the NRC staff's approved safety evaluation (ADAMS Accession No. ML100770146, dated March 29, 2010) justified an end state allowance for Condition C and not for Condition F which is similar to the OR Condition in Farley's TS LCO 3.7.10, Condition C.

Also, Farley's TS LCO Condition B is not identical to that of ITS Condition B which states "loss of both CREFS trains condition **due to an inoperable Control Room Boundary**". According to Farley's TS Bases, an inoperable CRE does not render the CREFS inoperable or vice versa.

Since the Farley's TS Conditions are not identical to those specified in the NRC staff's approved SE/TSTF, the proposed end state change is not appropriate for a loss of both trains condition in MODES 1, 2, 3 or 4.

The NRC staff finds the licensee's proposed change for LCO 3.7.10, Condition C which states, "Required Action and associated Completion Time of Condition A or B is not met in MODE 1, 2, 3, or 4," consistent with the approved TSTF-432 change.

The NRC staff requests the licensee to withdraw its proposed end-state change for the condition discussed above, or provide additional justification for the subject change currently proposed in the application. The NRC staff believes that the current change is beyond the TSTF-432 scope, thus, an additional review by the NRC staff's technical branch(es) will be required if the licensee requests it in the application.

#### RAI No. 2:

Table 1 in the licensee's application provides a comparison of the TSs action requirements in TSTF-432-A and the corresponding FNP TSs action requirements which are proposed for modifications. The NRC staff's review of LCOs 3.6.7, 3.7.10, 3.7.11 and 3.7.12 listed in the Table identified differences in the nomenclatures of certain systems listed in the FNP's TSs versus those specified in the TSTF.

The NRC staff requests that the licensee review its assessment provided in ADAMS under Accession No ML100770137 for the approved TSTF-432 changes, and determine whether its plant-specific systems, functions and nomenclature for the proposed changes, is equivalent to those addressed in the assessment, or explain differences, if any.

#### Regulatory Basis

The regulations under Title 10 of the Code of Federal Regulations Section 50.36 (c)(2)(i) state that Limiting conditions for operation (LCO) are the lowest functional capability or performance levels of equipment required for safe operation of the facility (emphasis added). When a LCO of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met. The licensee's proposed remedial action Completion Time provides a potentially confusing expectation on operators, and needs clarification or modification.



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/RA/

Shawn Williams, Project Manager  
Plant Licensing Branch, II-1  
Division of Operating Reactor Licensing  
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\*By Memo

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