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

April 7, 2016

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, AND VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION (CAC NOS. MF6118, MF6119, MF6197, MF6198)

Dear Mr. Pierce:

By letters dated April 13, 2015, and May 6, 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, and Vogtle Electronic Generating Plant (Vogtle), 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. Please provide a response within 30 days of the date of this letter.

Sincerely,

Bob Martin

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

Docket Nos. 50-348, 50-364
50-425, 50-425

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

VOGTLE ELECTRIC GENERATING 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, 50-364, 50-424, 50-425

By letters dated April 13, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15103A656), and May 6, 2015 (ADAMS Accession No. ML15128A239) 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, and Vogtle Electronic Generating Plant (Vogtle), 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.

Basis for Request for Additional Information – 1 (Vogtle Only)

The LAR submitted by the licensee proposed to change the end state requirement for Condition K, specifically Required Action K.2.2, of VEGP TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation." Function 7.a, "Semi-automatic Switchover to Containment Sump – Automatic Actuation Logic and Actuation Relays," is associated with this Condition, and requires two trains to be operable in Modes 1 through 3 and only one train to be operable in Mode 4. This differs from TSTF-432 and the STS which specify two trains being operable for Function 7.a (Full Automatic Switchover) in Modes 1 through 4.

Part of the justification in the TSTF-432 model safety evaluation (SE) for changing the Condition K end state for Function 7.a from Mode 5 to Mode 4 states that if one train is inoperable, the other train is available to initiate switchover to the containment sump. Since Function 7.a from the VEGP TSs only requires one train to be operable in Mode 4, this brings into question whether the model SE justification covers Function 7.a.

Request for Additional Information – 1 (Vogtle Only)

In the VEGP LAR, the licensee stated that the model SE for TSTF-432 was applicable to VEGP, Units 1 and 2, and it supports the incorporation of the LAR into the VEGP TSs. Please explain how the observation described above concerning TS 3.3.2 Condition K and Function 7.a meets the justification in the model SE for an inoperable train of Function 7.a in Mode 4.

Basis for Request for Additional Information – 2 (Vogtle Only)

The LAR submitted by the licensee proposed to change the end state requirement for Condition B, specifically Required Action B.2, of VEGP TS 3.7.14, "Engineered Safety Features (ESF) Room Cooler and Safety Related Chiller System." This change is described in the variations or deviations section of the LAR. Specifically, the licensee stated that TS 3.7.12, "ECCS Pump Room Exhaust Air Cleanup System," from the STS included the Conditions for VEGP TS 3.7.14. In contrast, TS 3.7.12 does not have Conditions related to ESF room coolers or chillers.

Request for Additional Information – 2 (Vogtle Only)

Based on the above, please explain how VEGP TS 3.7.14 is equivalent to TS 3.7.12 from the STS and consistent with TSTF-432.

Basis for Request for Additional Information – 3 (Vogtle Only)

In the LAR submitted by the licensee, a section was provided that discussed justifications for variations or deviations from TSTF-432. In this section, the licensee stated that the corresponding requirements for VEGP TS 3.7.13, "Piping Penetration Area Filtration and Exhaust System (PPAFES)," are included in TS 3.7.14, "Penetration Room Exhaust Air Cleanup System (PREACS)," from the STS.

The TS Bases for TS 3.7.14 from the STS describe the PREACS system function as filtering air from the penetration area between containment and the Auxiliary Building. This appears to be different from (1) the PPAFES function described in sections 6.5.1.1 and 15.6.5.4.4 from the VEGP Updated Final Safety Analysis Report (UFSAR), Revision 19, and (2) the description for PPAFES in the VEGP TS Bases, Revision 33, which respectively state,

> The piping penetration filter exhaust system is designed to maintain the filtration unit rooms at - 1/4 in. WG with respect to atmosphere. This condition ensures that the piping penetration areas which contain post-LOCA recirculation components are maintained at a negative pressure with respect to adjacent areas to prevent uncontrolled exfiltration of potentially contaminated air and to minimize release of airborne radioactivity to the outside atmosphere resulting from containment and penetration area leakage under accident conditions...It also ensures that the emergency core cooling system and containment spray pump rooms can be purged to allow access for repair and maintenance of the equipment. [VEGP UFSAR 6.5.1.1];
>
> The [ECCS] recirculation flowpaths outside the containment are entirely within building areas served by the ESF ventilation system (subsection 6.5.1), which recirculates the air

through charcoal filters to remove airborne iodine and maintains the areas at subatmospheric pressure to prevent the release of unfiltered air. [VEGP UFSAR 15.6.5.4.4]; and

The PPAFES maintains a negative pressure in the piping penetration area and Engineered Safety Feature (ESF) pump rooms and filters the exhaust from the negative pressure boundary. The PPAFES minimizes the release of airborne radioactivity to the outside atmosphere resulting from recirculation line and component leakage into the piping penetration area Emergency Core cooling System (ECCS) and ESF pump rooms during an accident condition. [VEGP TS bases].

In summary, the VEGP UFSAR and TS Bases describe PPAFES as a filtration system that encompasses more than the PREACS system from the STS (i.e., TS 3.7.14), which appears to only provide filtration from the penetration area between containment and the Auxiliary Building. In contrast, PPAFES is described as including other filtration areas such as the ESF pump rooms.

The licensee also indicated that the VEGP design does not include ECCS pump room exhaust cleanup equipment or depend on maintaining the ECCS pump rooms as a ventilation boundary; therefore, the licensee concluded that the ventilation requirements for TS 3.7.12, "ECCS Pump Room Exhaust Air Cleanup System," from the STS were not applicable to the VEGP TSs. This appears to contradict the aforementioned descriptions of PPAFES from the VEGP UFSAR and TS bases.

Request for Additional Information – 3 (Vogtle Only)

Based on the above, please clarify the relationship between (1) VEGP TS 3.7.13 and (2) TS 3.7.12 and TS 3.7.14 from the STS. Include in the discussion, how VEGP TS 3.7.13 is consistent with TSTF-432.

Basis for Request for Additional Information – 4 (Vogtle and for item 3 below, Farley)

The NRC staff identified the following discrepancies in the VEGP, and for Item 3 below, Farley TS bases that were submitted with the LARs.

1. The insert for the TS 3.4.13 bases, Condition B references Required Action K.2.2 versus B.2.

2. The insert for the TS 3.5.4 bases, Condition E, references Required Action C.2 versus E.2.

3. The Bases discussion for Required Actions D.1 and D.2 from TS 3.8.4 still includes a Mode 5 end state reference.

In the supplement to the VEGP LAR dated October 8, 2015, the Bases discussion for Required Actions F.1, F.2, and F.3 from TS 3.7.10 states Completion Times of 6 hours and 12 hours versus the TS required times of 7 hours and 13 hours. A similar discrepancy can be found in

the TS 3.7.10 bases insert for Condition G, which states Completion Times of 6 hours and 36 hours versus the TS required times of 7 and 37 hours.

Request for Additional Information – 4 (Vogtle and for item 3, Farley)

As required by section 50.36 of Title 10 of the Code of Federal Regulations (10 CFR 50.36), "Technical Specifications," the licensee must provide a summary statement of the bases or reasons for such specifications as part of the LAR submittal. This information may be reviewed for consistency with the associated TS changes. Based on the above, please explain the discrepancies between the TS changes and TS bases that were submitted.

April 7, 2016

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, AND VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION (CAC NOS. MF6118, MF6119, MF6197, MF6198)

Dear Mr. Pierce:

By letters dated April 13, 2015, and May 6, 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, and Vogtle Electronic Generating Plant (Vogtle), 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. Please provide a response within 30 days of the date of this letter.

Sincerely,

/RA/

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

Docket Nos. 50-348, 50-364
50-425, 50-425
Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC	LPL2-1 R/F	RidsAcrs_MailCTR Resource
RidsNrrDorlDpr Resource	RidsNrrDorlLpl2-1 Resource	RidsRgn2MailCenter Resource
RidsNrrLASFigueroa Resource	RidsNrrDe Resource	RidsNrrPMFarley Resource
RGrover, NRR	BSatterfield, NRR	RidsNrrPMVogtle Resource

ADAMS Accession No.: ML16077A177 ***By email**

OFFICE	LPL2-1/PM	LPL2-1/LA	NRR/DSS/STSB/BC	LPL2-1/BC	LPL2-1/PM
NAME	BMartin	SFigueroa	AKlein*	MMarkley	BMartin
DATE	04/05/16	03/21/16	04/05/16	04/07/16	04/07/16

OFFICIAL RECORD COPY