

August 23, 2023

NL-23-0716
10 CFR 50.90

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant Units 1 and 2
Docket Nos. 50-348 and 50-364

Subject: Response to Request for Additional Information Regarding Emergency License
Amendment Request: Technical Specification 3.6.5, Containment Air Temperature,
One-Time Temporary Change to Limit

On August 22, 2023, pursuant to the provisions of 10 CFR 50.90 and 10 CFR 50.91(a)(5), Southern Nuclear Operating Company (SNC) submitted an emergency license amendment request (LAR) (ADAMS Accession No. ML23234A151) for Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2 renewed facility operating licenses NPF-2 and NPF-8, respectively. The requested amendment would temporarily revise the operating license, Appendix A Limiting Condition for Operation (LCO) 3.6.5, Containment Air Temperature, limit on containment average air temperature from 120°F to 122°F effective until 0600 hours on September 9, 2023.

On August 22, 2023, the Nuclear Regulatory Commission (NRC) Staff issued a final Request for Additional Information (RAI) seeking clarifications related to the requested LAR. The Enclosure provides the responses to RAI ELTB - RAI 5.

This letter contains no regulatory commitments. This letter has been reviewed and determined not to contain security-related information.

In accordance with 10 CFR 50.91, SNC is notifying the State of Alabama by transmitting a copy of this letter and its enclosure to the designated State Official.

If you have any questions, please contact Ryan Joyce at 205-992-6468.

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I declare under penalty of perjury that the foregoing is true and correct. Executed on the 23rd day of August 2023.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'RJ' or similar initials, written in a cursive style.

Ryan Joyce

Manager, Regulatory Affairs

Southern Nuclear Operating Company

Enclosure: SNC Response to NRC RAI ELTB - RAI 5

cc: Regional Administrator, Region II
NRR Project Manager – Farley 1 & 2
Senior Resident Inspector – Farley 1 & 2
Alabama – State Health Officer for the Department of Public Health
RType: CFA04.054

Response to Request for Additional Information Regarding Emergency License Amendment
Request: Technical Specification 3.6.5, Containment Air Temperature, One-Time Temporary
Change to Limit

Enclosure

SNC Response to NRC RAI ELTB - RAI 5

On August 22, 2023, pursuant to the provisions of 10 CFR 50.90 and 10 CFR 50.91(a)(5), Southern Nuclear Operating Company (SNC) submitted an emergency license amendment request (LAR) for Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2 renewed facility operating licenses NPF-2 and NPF-8, respectively. The requested amendment would temporarily revise the operating license, Appendix A Limiting Condition for Operation (LCO) 3.6.5, Containment Air Temperature, limit on containment average air temperature from 120°F to 122°F effective until 0600 hours on September 9, 2023.

On August 22, 2023, the Nuclear Regulatory Commission (NRC) Staff issued a final Request for Additional Information (RAI) via email seeking clarifications related to the requested license amendment request (LAR). Responses to the RAI ELTB - RAI 5 are provided below. RAIs SNSB - RAI 1 through SNSB - RAI 4 are transmitted separately.

ELTB - RAI 5

In the emergency license amendment request (LAR), under 'Equipment Qualification Evaluation,' the licensee states, " A temporary 2°F increase in the containment average air temperature is bounded by the existing equipment qualification (EQ) analyses, due to conservatism and margins in the existing test programs and calculations. Thus an increase from 120°F to 122°F for the containment average temperature limit will have no impact on the qualification status or qualified lives of existing equipment located in containment in the EQ Program scope."

- a. The licensee did not identify any of the above requirements in the emergency LAR; therefore, it is unclear to the staff which requirements the licensee is implying are being met in the evaluation provided in the section titled 'Equipment Qualification Evaluation.' Provide clarification on the applicable regulatory requirements for this evaluation. The licensee should also list these regulatory requirements in the 'Applicable Regulatory Requirements/Criteria' section of the emergency LAR. The staff notes that there is a significant difference in regulatory meaning between the terms 'equipment qualification' and 'environmental qualification'.
- b. Are there any non-environmentally qualified electric equipment important to safety within containment that is expected to perform a design function under normal operation, maintenance, testing, and postulated accidents, including loss-of-coolant accidents (e.g., equipment important to safety that is in a mild environment as defined in 10 CFR 50.49)? If so, please identify the equipment and provide a justification for the capability of the equipment to continue to perform its design function under the proposed increase in average temperature

SNC Response to ELTB - RAI 5.a

SNC acknowledges that emergency LAR subsection titled 'Equipment Qualification Evaluation' and the included reference to "equipment qualification" was intended to be "Environmental Qualification." The evaluation provided in the emergency LAR was specific to the "environmental" aspect of temperature.

The LAR Section 4.1, Applicable Regulatory Requirements/Criteria, is supplemented with the following:

- GDC 4, "Environmental and dynamic effects design bases," states, in part, that structures, systems, and components important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal

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Response to Request for Additional Information

operation, maintenance, testing, and postulated accidents, including loss-of-coolant accidents. SNC has evaluated that the temporary increase in containment average air temperature by 2°F will have no impact on the qualification status or qualified lives of existing equipment important to safety located in containment in the Environmental Program scope.

10 CFR Part 50.49, "Environmental qualification of electric equipment important to safety for nuclear power plants," requires, in part, licensees to establish a program for qualifying the electric equipment important to safety. In accordance with FNP Environmental Qualification Program, the Environmental Program scope includes electrical equipment that is important to safety.

Regulatory Guide (RG) 1.155, Station Blackout, describes a means acceptable to the NRC staff for meeting the requirements of 10 CFR 50.63. NUMARC-87-00 also provides guidance acceptable to the staff for meeting these requirements. NUMARC-87-00, "Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors," Section 2.7.1, identifies the assumptions associated with loss of ventilation and indicates "Equipment Operability Inside Containment Temperatures resulting from the loss of ventilation are enveloped by the loss of coolant accident (LOCA) and high energy line break environmental profiles." Thus, the LAR discussions concluding that there is no anticipated increase in the containment vapor temperature provide continued compliance with the guidance of RG 1.155.

SNC Response to ELTB - RAI 5.b

In accordance with FNP Environmental Qualification Program, the program scope includes electrical equipment that is important to safety. Equipment that is important to safety involves safety related and non-safety related electrical equipment whose failure can prevent satisfactory accomplishment of safety functions as described in 10 CFR 50.49 (b)(1) and (b)(2) and certain post-accident monitoring equipment as described in 10 CFR 50.49(b)(3).