Observation Public Meeting

Discuss SNC's previous License Amendment Request to Revise Joseph M. Farley Nuclear Plant, Units 1 and 2, Actions and Completion Times in TS 3.6.5, "Containment Air Temperature," using RIPE

Date: July 11, 2024

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Purpose

- Provide a brief background related to SNC's LAR to modify Joseph M. Farley Nuclear Plant, Units 1 and 2, TS 3.6.5, "Containment Air Temperature" under RIPE
- Ensure a common understanding of SNC's previous LAR dated April 19, 2024, as supplemented
- Identify informational needs for any future LARs related to modifying TS 3.6.5 for RIPE and/or traditional reviews

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Key messages

- SNC's April 2024 Farley submittal (under RIPE) was a request for a permanent change similar to an emergent, time-limited LAR which was granted for 16 days to preclude a plant shutdown. Permanent changes require a more complete justification and review than one-time, time-limited requests.
- NRC understands the likely seasonal need for a containment temperature licensing modification. NRC is committed to an expedited review whether resubmitted as a RIPE or non-RIPE licensing request.

Background – August 2023 Emergency Amendment

- Emergency Amendment – August 24, 2023 (ML23235A296)
  - Amendment expired on September 9, 2024 (16 days)

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Background – RIPE LAR Pre-submittal meeting

- Pre-submittal meeting was held on April 3, 2024
  - SNC slides (ML24088A166)
  - Meeting summary – April 12, 2023 (ML24096A183)

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Background– SNC's RIPE LAR Submittal

- SNC submittal April 19, 2024 (ML24110A126)
- NRC Request for Supplemental Information May 28, 2024 (ML24143A041)
- SNC Supplement June 14, 2024 (ML24166A290)
- NRC Nonacceptance Letter July 1, 2024 (ML24178A376)

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Farley RIPE LAR

- SNC submitted Farley RIPE LAR on April 19, 2024 (ML24110A126)
- TS 3.6.5 Actions, upon exceeding the containment average air temperature limit, are proposed to be revised to allow continued operation for up to 30 cumulative days provided:
  - the containment average air temperature remains less than or equal to 122°F (verified within 8 hours and once per 8 hours thereafter);
  - the containment average air temperature has not exceeded the 120°F limit for more than 720 cumulative hours during the current calendar year (verified within 8 hours and once per 8 hours thereafter); and
  - the refueling water storage tank temperature remains less than or equal to 100°F (verified within 8 hours and once per 8 hours

3.6 CONTAINMENT SYSTEMS

3.6.5 Containment Air Temperature

LCO 3.6.5 Containment average air temperature shall be ≤ 120°F.

~~NOTE~~
~~Containment average air temperature shall be ≤ 122°F until 0600 hours on September 9, 2023~~

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Containment average air temperature not within limit.	A.1	Verify containment average air temperature ≤ 122°F.	8 hours AND Once per 8 hours thereafter
	AND		
	A.2	Verify by administrative means that containment average air temperature has not exceeded 120°F for > 720 cumulative hours in the current calendar year.	8 hours AND Once per 8 hours thereafter
	AND		
	A.3	Verify refueling water storage tank temperature ≤ 100°F.	8 hours AND Once per 8 hours thereafter
	AND		
	A.4	Restore containment average air temperature to within limit.	~~8 hours~~ 30 days

(continued)

Technical Discussion

In the original application, as supplemented, there were areas where additional information would be needed or expanded on to accept the licensee's submittal:

- **PCT**
  - NRC staff seeks to understand the methodology SNC used to determine increase in PCT as an effect of increased Containment Average Air Temperature
- **NPSH**
  - NRC staff seeks to clarify the version and inputs/assumptions of SNC's GOTHIC model on LOCA sump temperature response
- **TS**
  - NRC staff seeks to understand how the proposed change in TS 3.6.5 is derived from analysis and evaluation included in the Safety Analysis Report

Technical Discussion - PCT

- **Plant-specific Methodology** – The application did not provide sufficient information to assess the analytical methods and results concerning the plant-specific effects of increasing PCT would have on a large break LOCA, explicit to Joseph M. Farley Nuclear Plant, Units 1 and 2.
- **10 CFR 50 App B Design Control** – The application did not discuss how the remaining PCT margin would be tracked or documented for future reviews.
  - 10 CFR 50.46(b)(1) requires PCT not exceed 2200°F

Technical Discussion - NPSH

- **GOTHIC Code** - The application did not describe the version of the GOTHIC code used. More information is needed on uncertainties and on inputs that impact LOCA sump temperature response.
- **NPSH Margin** – The application did not describe the NPSH margin for containment spray pumps during the LOCA recirculation phase.

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Technical Discussion - TS

- Should the application be resubmitted, technical issues may drive the structure of an appropriate TS for the change IAW 10 CFR 50.36.
- **Remedial Action vs LCO**- The application did not provide a justification for why the proposed change would not be considered an LCO rather than a remedial action.
  - 10 CFR 50.36(c)(2) defines LCO as the lowest functional capability or performance levels of equipment required for safe operation of the facility.

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Path Forward

- The NRC staff is committed to an expeditious review of this LAR, if resubmitted, whether under RIPE or non-RIPE.
- The NRC would expect this submittal to inform future reviews and the RIPE process.

Acronyms

CFR – Code of Federal Regulations
LAR – License Amendment Request
LCO – Limiting Conditions for Operation
LOCA – Loss of Coolant Accident
NPSH – Net Positive Suction Head
PCT – Peak Cladding Temperature
RIPE – Risk-Informed Process for Evaluation
SNC – Southern Nuclear Company
TS – Technical Specification

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Questions?