Southern Nuclear

Proposed Farley Nuclear Plant
Units 1 & 2 License Amendment Request

License Amendment Request Proposing Removal of RCS Subcooling Margin Monitor from Technical Specifications List of Post Accident Monitoring Instrumentation

Presubmittal Meeting: June 23, 2025

Southern Nuclear

Agenda

- Description
- Background
- Technical Evaluation
- Regulatory Evaluation
- Discussion

Remove RCS SMM Function #10 from PAM TS Table 3.3.3-1

DESCRIPTION

- The proposed amendment would revise Technical Specifications (TS) Table 3.3.3-1, “Post Accident Monitoring Instrumentation” to delete Function 10, RCS Subcooling Margin Monitor.
- Reactor Coolant System (RCS) Subcooling Margin Monitor is currently categorized in the Farley Updated Final Safety Analysis Report (UFSAR) Table 7.5-1 (Sheet 1 of 16), “Post Accident Instrumentation” as a Type A, Category 2 variable.
- The RCS Subcooling Margin Monitor indication will be retained in Farley UFSAR Table 7.5-1 (Sheet 3 of 16) as a Type B, Category 2 variable.

BACKGROUND

- The purpose of PAM instrumentation is to function in a post accident environment to provide indications necessary for operators to take manual actions to mitigate the consequences of an accident.
- The RCS subcooling indication provides information to indicate whether the core cooling safety function is being accomplished.
- The inputs to the RCS Subcooling Margin Monitor (SMM) are RCS hot leg and cold leg temperatures from loop RTDs, CET temperature, RCS wide range pressure, and pressurizer pressure. Since these indications are independently displayed in the control room, the RCS subcooling margin monitor provides redundant calculation and display functions as a backup of these input indications.

Remove RCS SMM Function #10 from PAM TS Table 3.3.3-1

TECHNICAL EVALUATION

- The RCS subcooling indication provides information to indicate whether the core cooling safety function is being accomplished. Therefore, for the purpose of determining the content of Technical Specification 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," this variable is considered a Type B variable.
- The RCS subcooling indication is a backup to the core exit thermocouples and RCS pressure. Therefore, for the purpose of determining the content of Technical Specification 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," this variable is considered a Category 2 variable.

TECHNICAL EVALUATION (cont.)

- Using the methodology of WCAP-15981-NP-A, it was determined that the RCS SMM does not fulfill the function of Regulatory Guide 1.97 for a Type A or Category I instrument.
- The SMM is not relied upon to support any PRA-modeled system to mitigate core damage or large early release, the SMM has no contribution to the total CDF and LERF.
- The proposed change does not require changes to the FNP EOPs, SAMGs or Emergency Plan.

REGULATORY EVALUATION

- The evaluations performed in accordance with WCAP-15981-NP-A also support the conclusions that the affected instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3 (i.e., it was not found to be a Type A instrument) or Criterion 4 (i.e., it was not found to be significant to risk).

- 10 CFR 50.47 contains requirements for Emergency Plans. The proposed change does not result in any changes to the Emergency Plan and does not result in a decrease in the effectiveness of the Emergency Plan.

- 10 CFR 50.49 specifies design and performance requirements for safety-related instrumentation exposed to adverse environments during accident conditions. The proposed change does not impact the requirements of 10 CFR 50.49.

Remove RCS SMM Function #10 from PAM TS Table 3.3.3-1

Remaining Actions and Schedule

• NRC Pre-Submittal Meeting	6/23/2025
• Submit LAR to NRC	6/30/2025
• Requested Approval by NRC	1 year from completion of acceptance review

Discussion / Feedback