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James A. FitzPatrick Nuclear Power Plant

Elimination of Main Steam Tunnel Temperature High Isolation from TS 3.3.6.1

NRC Pre-Submittal Meeting
05/21/2025

Agenda

- Deletion of Main Steam Tunnel Area Temperature - High from Table 3.3.6.1-1
- Addition of new Technical Specification 3.7.8 Main Steam Tunnel Area Temperature
- Discussion of Precedence
- Timeline
- Discussion and Feedback

Deletion of Main Steam Tunnel Area Temperature - High from Table 3.3.6.1-1

- JAFNPP License Amendment Request to eliminate the requirement for an automatic Main Steam Line Isolation from Main Steam Tunnel Area Temperature – High
  - The temperature setpoint of 195°F allows for identification of leaks that allow preemptive actions to remove the unit from operation instead of requiring an automatic scram.
  - Controlled shutdown would be preferred to an automatic scram with a main steam line isolation which would be a complicated scram.
  - The MST Area Temperature - High Function is not assumed to actuate in any accident analysis.
  - The following TS functions will continue to provide automatic MSL isolation:
    - Reactor Vessel Water level - Low, Low, Low - Level 1
    - Main Steam Line Pressure - Low
    - Main Steam Line Flow - High
    - Condenser Vacuum - Low

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Additional of new Technical Specification 3.7.8 Main Steam Tunnel (MST) Area Temperature

- Additional of new Technical Specification 3.7.8 Main Steam Tunnel (MST) Area Temperature will require MST Area Temperature to be ≤ 195°F.
  - Actions will require immediate verification that no Main Steam Line Pressure Boundary Leakage exists and follow up verification every 12 hours thereafter.
  - If the action is not complete or Main Steam Line Pressure Boundary Leakage exists, then a shutdown is required. The unit must be in Mode 3 in 12 hours and Mode 4 in 36 hours.
  - This TS will allow for an orderly unit shutdown when leakage is detected prior to the flow rate corresponding to a critical crack size which will not propagate into a full pipe rupture for the Main Steam piping.
  - This new TS will prevent a shutdown when the elevated temperature is caused by changes in turbine building ventilation, high ambient temperatures seasonally, or failed instrumentation.

Applicable Precedence

- Edwin I. Hatch Nuclear Plant Unit Nos. 1 and 2, "Request to Eliminate Automatic Main Steam Line Isolation on High Turbine Building Area Temperature" May 20, 2022 (ADAMS Accession No. ML22101A094).
- Limerick Generating Station “License Amendment Request for Proposed Changes to the Technical Specification Isolation Actuation Instrumentation Tables and New Turbine Enclosure Main Steam Line Tunnel Temperature TS 3/4.7.9”, July 29, 2024 (ADAMS Accession No. ML24204A071).

Timeline

- LAR Submittal May 2025
- Seeking NRC approval in 12 months
- Implementation in 30 Days

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Discussion/Questions

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