TENNESSEE VALLEY AUTHORITY

Watts Bar Nuclear Plant (WBN)
Pre-Pre-submittal Meeting for License Amendment Request (LAR) Revision to Technical Specification (TS) 3.7.10 and Selective Implementation of Alternate Source Term (AST) Based on Timing Aspects

May 6, 2024, 1500 Eastern

Agenda

- Introduction
- Reason for the Proposed Changes
- Proposed TS and Bases Changes
- Justification for the Proposed TS and Bases Changes
- Selective Implementation of AST
- Closing Remarks

Introduction

- The purpose of this meeting is to discuss a proposed license amendment request (LAR) for WBN Units 1 and 2 to make changes to the Note in TS 3.7.10 [Control Room Emergency Ventilation System (CREVs)] and the corresponding Bases consistent with the WBN safety analyses.
- The proposed change also utilizes selective implementation of AST during a loss of coolant accident (LOCA).
- TVA is seeking NRC feedback on:
  - The proposed TS 3.7.10 and Bases changes.
  - Selective Implementation of AST to credit 10-minute delay of gap release phase for LOCA without reanalysis.
    - No precedent for proposed selective implementation of AST based on timing aspects.
- A formal pre-submittal meeting with the NRC will be scheduled later after the LAR is fully developed.

Reason for the Proposed Change

- Proposed changes would preclude the following:
  - Entry into TS 3.7.10 Condition B [one or more CREVS trains inoperable due to inoperable control room envelope (CRE) boundary in Mode 1, 2, 3, or 4] every time a CRE boundary door is left ajar.
  - Inoperability of both trains of CREVS.
  - Reporting requirements due to two safety trains being inoperable.
- WBN has had 12 Licensee Event Reports for this issue

Proposed Technical Specification Change

(changes shown in red)

3.7 PLANT SYSTEMS

3.7.10 Control Room Emergency Ventilation System (CREVS)

LCO 3.7.10	Two CREVS trains shall be OPERABLE.
	----------NOTE---------- The control room envelope (CRE) boundary may be opened intermittently under administrative controls that ensure the CRE can be closed consistent with the safety analysis. ----------
APPLICABILITY:	MODES 1, 2, 3, 4, 5, and 6, During movement of irradiated fuel assemblies.

Proposed Technical Specification Bases Change

CREVS
B 3.7.10

BASES

LCO

The LCO is modified by a Note allowing the CRE boundary to be opened intermittently under administrative controls that ensure the CRE can be closed consistent with the safety analysis. This Note only applies to openings in the CRE boundary that can be rapidly restored to the design condition, such as doors, hatches, floor plugs, and access panels. For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area or by other personnel responsible for responding to an abnormal pressurization alarm. For other openings, these controls should be proceduralized and consist of stationing a dedicated individual at the opening who is in continuous communication with the operators in the CRE. This individual will have a method to rapidly close the opening and to restore the CRE boundary to a condition equivalent to the design condition when a need for CRE isolation is indicated. The CRE boundary must be able to be restored within 10 minutes (including the time for restoration of the CRE boundary and drawdown) in accordance with UFSAR Chapter 15.5.

Justification for Proposed TS and Bases Changes

- Safety Analyses will be revised to account for the delay.
- Main Control Room alarm if pressure goes below 1/8”.
- Alarm response will ensure doors are checked and closed.

Selective Implementation of AST

- Regulatory Guide 1.183, *Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors*, Section 3.3, states that the onset of the gap release phase may be assumed to be 10 minutes for facilities licensed for leak-before-break (LBB) methodology.
- WBN is licensed for LBB and would implement this for a LOCA.
- This would allow the CRE door to be open for up to 10 minutes without impacting the current analysis.
- No reanalysis would be performed.
- Would maintain the current source term and acceptance criteria based on Technical Information Document (TID)-14844.

Closing Remarks

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