Southern
Nuclear

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Joseph M. Farley Nuclear Plant
Risk-Informed Technical Specifications
Risk-Informed Initiative 4b

Pre-submittal Meeting

March 12, 2018

Overview

Farley 4b License Amendment Request (LAR)

- Plant specific application based on the approved Vogtle Safety Evaluation(SE)
- Implementation plans
- Probabilistic Risk Assessment (PRA) models
- LAR Enclosures
- SNC Requests

Key Dates

- Vogtle Application approved June 2017
- Farley LAR submittal planned for early 2Q-2018

FNP Identical to Vogtle Application

- Identical to approved Vogtle Risk-Informed Technical Specifications (RITF)
  - "Methods" license condition identical to Vogtle
  - Tech Spec Section 3.3, Instrumentation, not in scope
  - Use of either Common Cause Failure (CCF) Risk Managed Actions (RMAs) or modify CCF factors as required when applying an emergent Risk-Informed Completion Time (RICT)
  - Use of 24 hour backstop and design-basis parameter success criteria for Loss of Function (LOF) RICT
  - Providing examples of RMAs planned during RICTs related to TS inoperability of electrical equipment, like Diesel Generators (DGs), Inverters and offsite sources.
  - Vogtle Requests for Additional Information (RAI) incorporated and explicitly described in Attachment 1.

Implementation Plans

- Implementing procedures are based on
  - NEI 06-09 guidance
  - NRC Vogtle 4b audit inputs
  - Vogtle RAI responses
  - Vogtle 4b LAR NRC SE.
- FNP site is planning for a 4b implementation by the middle to end of 2019 by focusing on:
  - Change management
  - Procedures changes to make fleet procedures applicable to Farley
  - Training to be delivered to Operations , Work Management and Supervision; as it was for Plant Vogtle.

Farley PRA Models

- Appendix X not utilized
- F&O resolutions reviewed in previous submittals
  - NFPA 805
    - Original SE - March 10,2015 - ML14308A048
    - Final SE - November 1, 2017 - ML17269A166
  - ILRT (SE - ML17261A087)
  - 5b, Surveillance frequency control program(SE ML11167A226)

- Fire model data updates
  - Incipient Detection
    - FAQ-08-046 to NUREG 2180
  - Reactor Coolant Pump Shutdown Seal model credit
    - (Verification of approval version: ML17200C865)
  - Fire Ignition Frequencies (NUREG 2169)
  - Heat Release Rates (NUREG 2178)

LAR Enclosures

Enclosure 1: List of Revised Required Actions to Corresponding PRA Functions.

- Similar to VEGP LAR in content
- RICT calculations based on PEER Reviewed frozen models (previous version of the model)
  - Example calculations of RICTs
  - Actual RICTs may vary based on plant configuration
  - Review of Vogtle RAI for DC subsystems

Enclosure 2: Information Supporting Consistency with Reg. Guide 1.200, Revision 2.

- Documents resolution of F&Os for Internal, Internal Flooding and Internal Fire PRAs

Enclosure 3: Information Supporting Justification of Bounding Analysis or Excluding Sources of Risk Not Addressed by the PRA Models

- Documents use of Seismic bounding value based on convolution of FNP IPEEE and EPRI 2014 hazard

Enclosure 4: Baseline CDF and LERF

- **Total CDF/LERF meet 1E-04/1E-05 RG 1.1.74 risk thresholds based on latest version FNP models**

Enclosure 5: PRA Model Update Process

Enclosure 6: Attributes of the CRMP Model

Enclosure 7: Key Assumptions and Sources of Uncertainty

Enclosure 8: Program Implementation

Enclosure 9: Cumulative Risk and Performance Monitoring Program

Enclosure 10: Risk Management Action Example

SNC Requests

- Alignment on plant specific applications
  - Identical to Vogtle
  - Any issues with NRC approval of Vogtle 4b
- Use of previously approved models and recent changes
- NRC Staff feedback on SNC approach to Enclosure 1