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Simulated ITAAC Closure and Verification Demonstration

Progress Update

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Overview

- Participants include NRC, DOE, Westinghouse, Southern Company, SCANA (Observer)
- Purpose:
  - Gain insights into the readiness of industry closure process and NRC inspection and closure verification process
  - Test aspects of the construction assessment and enforcement programs
  - Evaluate the surge in ITAAC closure submittals during the last year of construction

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Scope

- Six ITAAC selected from AP1000 design
  - ITAAC 2.1.02.07a.i, RCS Harsh Environment Type Test
  - ITAAC 2.2.01.04a.ii, Containment System Impact Testing
  - ITAAC 2.2.02.01, Passive Containment Cooling Functional Arrangement
  - ITAAC 2.2.03.08c.i, Injection Line Flow Resistance Testing and Analysis
  - ITAAC 2.6.03.08, DC System Fault Current Analysis
  - ITAAC 3.7.01, Design Reliability Assurance Program

- Four Stages:
  - ITAAC Performance and NRC Assessment
  - ITAAC Closure
  - Exercise Workshop
  - Lessons Learned

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Milestones

- ~~7/29/10 Public Meeting – Kickoff~~
- ~~8/19/10 Public Meeting – Progress Update~~
- ~~9/14/10 Simulated Inspection at Vogtle 3&4~~
- ~~9/22/10 Simulated Inspection at Westinghouse HQ~~
- 10/07/10 Public Meeting – Progress Update
- 10/22/10 Region II issues Integrated Inspection Report
- 10/29/10 Westinghouse/Southern submit ICL to NRC
- 12/09/10 Public Meeting – Progress Update
- 12/16/10 NRC Completes ITAAC Closure Verification
- 1/13/11 Public Meeting – Demonstration Workshop
- 3/31/11 Public Meeting – Lessons Learned

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Stage 1

- Objectives for Stage 1
  - Demonstrate the infrastructure that will be used for construction inspection
  - Demonstrate the communication paths for inspection, technical report reviews, and closure letters
- Progress in Stage 1
  - Simulated Inspection of Type Test
  - Simulated Inspection at Vogtle
  - Simulated Inspection at Westinghouse
  - Simulated Findings

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Visit to Vogtle

- Reviewed Closure Documents for each ITAAC except D-RAP
- Discussion on Access to Documents
- Discussion on Potential Finding for Type Testing
- Discussion on Inspection Scheduling

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Visit to Westinghouse

- Reviewed Closure Documents for all ITAAC, including D-RAP
- More Information Available for Review
  - Equipment Qualification
  - Injection Line Testing
  - Fault Current Analysis
- Closure Packages “In-Progress”

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Simulated ITAAC Related Construction Finding

- EQ type tests for Fourth Stage ADS done at less than design basis peak temperature
- This would be a violation of 10 CFR 50.49 for failure to establish a temperature consistent with most severe design basis accident.
- Material to ITAAC because it did not consider conditions that would exist during a design basis accident (ITAAC 2.1.02.07a.i)

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Simulated Construction Finding

- Load analysis for UPS did not address output power from inverter running on backup AC source
- This would be a violation of 10 CFR 50, Appendix B, Criterion III for failure to correctly translate requirements into design specifications and drawings
- Not ITAAC related because it deals with AC

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Are We on Track?

- Demonstrate the infrastructure that will be used for construction inspection
  - Inspection Plans
  - Inspection Scheduling
  - Report Writing
- Demonstrate the communication paths for inspection, technical report reviews, and closure letters
  - TAR Process
  - Stage 2 will be an Additional Test

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Stage 2

- Objectives for Stage 2
  - Demonstrate the infrastructure that will be used for ITAAC closure verification
  - Demonstrate the communication paths for closure letters and additional inspection requests
  - Evaluate the surge in ITAAC submittals expected in the last year of construction
  - Simulate the issuance of *Federal Register* Notices

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Preliminary Lessons Learned

Lesson Learned will be documented in a lessons learned report at the end of the demonstration

- Refinement of NRC internal TAR process
- Identifying technical branches to support inspections and HQ project managers for each site
- Availability of technical reports for NRC review
- Expected contents of ITAAC closure packages and letters
- Level of details in the technical reports
- IT infrastructure for ITAAC closure