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UNITED STATES NUCLEAR REGULATORY COMMISSION

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Presentation to the ACRS Subcommittee

Safety Review of the Clinch River Nuclear Site, Early Site Permit Application Quality Assurance Program Description: (SSAR Section 17.5)

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Early Site Permit (ESP) Regulations

- Appendix B to Part 50, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants”
- 10 CFR Part 52.17, “Contents of applications; technical information” Subsections (a)(1)(xi) and (xii)



Background

- TVA (Tennessee Valley Authority) submitted Operating Nuclear Quality Assurance Plan (NQAP), Revision 32, with their ESP application
- TVA NQAP, Revision 32, commits to ANSI N45.2-1971 as endorsed by RG 1.28, Revision 3
- Review involved multiple public meetings and clarification calls
- One request for additional information (RAI) with 8 questions; TVA responded by submitting NQAP, Revision 36



Key Review Areas

[1] Quality Assurance Program Description (QAPD)

- Criterion I – Organization
- Criterion II- Quality Assurance (QA) Program

[2] Quality Assurance (QA)

- Gap analysis evaluation
- Criterion XVII- QA Records
- Criterion VII- Control of Purchased Material, Equipment and Services
- Criterion XV-Nonconforming Material Parts of Components

[3] QA Implementation Inspection

- April 16-20th 2018 at TVA (Chattanooga, TN)



Key Review Area [1]

[1] QAPD Clinch River Nuclear Site, Criterion I and Criterion II

- NRC Staff RAI:
 - Small Modular Reactor (SMR) Organization for the Clinch River Nuclear (CRN) Site
 - Independent Assessments at the CRN site
 - Reference or commitment to 10 CFR Part 52

- As a result of the staff's review; TVA revised the NQAP to Revision 36:
 - Added Appendix K (roles and responsibilities) and Appendix L (organization chart) in support of the SMR organization.
 - Added Independent Assessments at the CRN site.
 - Added 10 CFR Part 52 to NQAP.



Key Review Area [2]

[2] QA Gap Analysis and Criterion XVII

- NRC Staff RAI:
 - Gap Analysis evaluation between RG 1.28 Rev 3 & 4 (10 CFR 52.17(a)(1)(xii))
 - CRN QA record documents
 - CRN electronic records controls

- As a result of the staff's review; TVA revised the NQAP to Revision 36:
 - TVA provided a gap analysis evaluation during inspection (ML18143B478)
 - Added Appendix M (Clinch River Commitments and Clarifications for the ESP QA Program) and committed to RG 1.28 Rev 4.
 - Identified the documents that are considered QA records per Criterion XVII
 - Added electronic records controls per RIS 2000-18 and NIRMA (Nuclear Information & Records Management Association), TG-11,15,16, and 21



Key Review Area [2]

[2] QA Gap Analysis, Criterion VII and Criterion XV

- NRC Staff RAI:
 - An incorrect exemption for the use of Accreditation in lieu of Commercial Grade Surveys for Procurement of Laboratory Calibration and Test Services
 - Did not address the notification of affected organizations for nonconforming materials, parts or components
- As a result of the staff's review; TVA revised the NQAP to Revision 36:
 - Revised ILAC (International Laboratory Accreditation) conditions per NEI 14-05A "Guidelines for the use of Accreditation in lieu of Commercial Grade Surveys for Procurement of Laboratory Calibration and Test Services." Revision, 0.
 - Added Appendix M and the commitments to address the notification of affected organizations.



Key Review Area [3]

[3] QA Implementation Inspection

- April 16-20th, 2018
- Tennessee Valley Authority (TVA) office in Chattanooga, TN
- Inspection Procedure (IP) 35017, "Quality Assurance Implementation Inspection"
- Initial review of TVA revised NQAP, Revision 36
- No findings of significance were identified
- QA Inspection Report publicly-available (ML18143B478)



Conclusion

- QAPD for the CRN Site ESP application meets the requirements of 10 CFR Part 50, Appendix B and 10 CFR Part 52.17(a)(1)(xi) and (xii) .