

NRC Update

EPRI Joint Utility Task Group (JUTG)

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Clearwater, FL



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Topics

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- ❑ NRC Inspection Results Update
- ❑ Commercial-Grade Dedication Inspections at Licensees
- ❑ 10 CFR Part 53 Rulemaking
- ❑ NRC Meeting with NEI on ISO 9001
- ❑ Special Inquiry into CFSI in Operating Nuclear Power Plants
- ❑ Questions



NRC Vendor Inspections & Findings

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- Since the August 2021 meeting, the NRC has completed 6 vendor inspections:
 - Westinghouse Electric Company (August 2021)
 - Fairbanks Morse Engine (September 2021)
 - NTS Huntsville (October 2021)
 - Hayward-Tyler (November 2021)
 - Framatome (November 2021)
 - Engine Systems (November 2021)



NRC Vendor Inspections & Findings

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□ Results:

- Criterion VII & Criterion XVI (NTS Huntsville) – ML21319A392
- Criterion XVI (Framatome) – ML21341B323
- 10 CFR Part 21 (Engine Systems) – ML21341B189



Commercial-Grade Dedication Inspections at Licensees

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- Power-operated Valve (POV) inspections 3-year cycle ends December 2022.
- Commercial Grade Dedication (CGD) selected to replace POV starting in January 2023.
 - This is a Design Bases Assurance Inspection (Programs) inspection, henceforth referred to as a Focused Engineering Inspection.
 - Similar to Environmental Qualification (EQ), POV and Fire Protection.



Commercial-Grade Dedication Inspections at Licensees

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- Two-week onsite inspection with one week in-between (same as POV, EQ, Fire Protection.)
- Three inspectors per inspection team.
- IP 71111.21N format.
 - Performance based inspection through inspection sampling.
 - Sample selection of safety and risk significant components that have dedicated components.
 - Uses guidance from IP 43004 “INSPECTION OF COMMERCIAL-GRADE DEDICATION PROGRAMS.”



Commercial-Grade Dedication Inspections at Licensees

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- IP 71111.21N.03 procedure to be completed in spring 2022 and publicly available.
- Provide CGD training to regional inspectors.
 - Technical and regulatory training.
 - Inspection implementation and scenario-based tabletop exercise.
- Identify technical and programmatic leads.
- Observe first inspections to quickly incorporate any feedback as needed.



Commercial-Grade Dedication Inspections at Licensees

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- NRC staff open to public meeting(s) in Fall 2022 to discuss CGD preparation and implementation with industry.
- Hold cross-regional panels post-inspection to ensure consistent inspection implementation.



10 CFR Part 53 Rulemaking

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- ❑ Public comment period extended until August 31, 2022
- ❑ NRC staff currently considering comments on QA made on the initial draft rule
- ❑ Early stages of developing alternate language



NEI proposal to utilize ISO 9001

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- The Nuclear Energy Institute (NEI) requested a public meeting with the NRC to discuss proposal.
- Meeting held on Nov. 30, 2021
 - NEI presentation slides - ADAMS Accession Number ML21327A263.
 - Observation meeting summary - ML21348A313
- Purpose – to discuss alternative approach to use suppliers with a commercial quality program (ISO 9001)
 - *Addresses necessary growth of the Advanced Reactor (AR) supplier community*
 - *Drives innovation for emergent AR technologies*
 - *Reduces economic challenges to small suppliers posed by development of Appendix B Program*



Meeting with NEI on ISO 9001

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- Discuss planned proposal to use ISO 9001 to satisfy Appendix B to 10 CFR Part 50 requirements to support 10 CFR Part 53 and the operating fleet
- NRC staff's perspective:
 - Scope of safety-related components for advance reactors needs to be defined and understood
 - Beneficial to focus on advance reactors and not on operating reactors
- NEI to submit a white paper with a more detailed proposal sometime in 2022

NEI proposal to utilize ISO 9001

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- Observation meeting conclusions
 - The staff stated that SECY-03-0117 already provides options on approaches for adopting more widely accepted international quality standards such as ISO-9001.
 - Approach 1: Acceptance of ISO 9001 as an Alternative to Appendix B
 - Approach 2: Nuclear Sector-Specific ISO Program
 - Approach 3: Licensee-Specific Controls for ISO 9001 Certified Suppliers
 - Approach 4: ISO 9001 Certified Suppliers for Commercial-Grade Item Procurement
 - NEI proposed:
 - To address gaps between the requirements of ISO-9001 and the requirements of Appendix B, such as special processes like welding, the licensee procuring the safety-related item or service and the ISO-9001 supplier supplying the item or service would have to address these gaps through procurement specifications and contractual agreements.
 - 10 CFR Part 21 requirements would be contractually passed down from the licensee procuring an item to the ISO-9001 supplier supplying the item through the procurement specifications.
 - To provide oversight of an ISO-9001 supplier, the licensee would extend their Appendix B QA program requirements to the ISO-9001 supplier.

Audit of the NRC's Oversight of CFSI at NPPs

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- “Audit of the Nuclear Regulatory Commission’s Oversight of Counterfeit, Fraudulent, and Suspect Items at Nuclear Power Reactors” (OIG-22-A-06).
 - (Agencywide Document Access and Management System (ADAMS) Accession No. ML22040A058)

- The OIG found that the NRC should improve its oversight of counterfeit, fraudulent, and suspect items (CFSI) by clarifying and communicating how the agency collects, assesses, and disseminates information regarding CFSI, and by improving staff awareness of CFSI and its applicability to reactor inspections.

Audit of the NRC's Oversight of CFSI at NPPs

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- ❑ **OIG made a total of 8 recommendations:**
 - ❑ Develop processes and guidance to collect, process, and disseminate CFSI information
 - ❑ Communicate those processes
 - ❑ Develop an agencywide approach for CFSI and identify the agency's primary objective regarding mitigation of CFSI
 - ❑ Define CFSI
 - ❑ Include a CFSI category in the Allegation Management System
 - ❑ Develop inspection guidance in inspection procedures
 - ❑ Develop CFSI training
 - ❑ Develop a knowledge management and succession plan

Audit of the NRC's Oversight of CFSI at NPPs

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- The NRC has a robust and highly effective oversight program for operating reactors governed by a risk-informed reactor oversight process (ROP) that provides reasonable assurance of adequate protection for the US fleet of commercial power reactors.
 - The NRC is proactive in addressing the potential for CFSI to be introduced into the supply chain for safety-significant components used in Nuclear Power Plants.
 - The NRC issued guidance documents that endorse industry best practices for CFSI to facilitate licensees and vendors in their prevention, identification, and mitigation of CFSI.
 - The NRC actively monitors and promptly responds to potential CFSI events that could affect NRC regulated entities.
 - The NRC interacts frequently with industry, government, and standards organizations to collaborate and coordinate on topics related to CFSI.
 - The NRC has reached out to the DOE to ensure they are aware of the OIG's findings in the special inquiry report.

Audit of the NRC's Oversight of CFSI at NPPs

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- For those interested, here are a number of recent Generic Communications that can be found at:

<https://www.nrc.gov/reading-rm/doc-collections/gen-comm/index.html>

- **Regulatory Issue Summary (RIS)-15-08**, “Oversight of Counterfeit, Fraudulent, and Suspect Items in Nuclear Industry”
- **IN 2018-11** Supplement 1: Kobe Steel Quality Assurance Record of Falsification
- **IN 2013-15** Willful Misconduct/Record Falsification and Nuclear Safety Culture
- **IN 2013-02** Issues Potentially Affecting Nuclear Facility Fire Safety
- **IN 2008-10** Response to Indications of Potential Tampering, Vandalism, or Malicious Mischief
- **IN 2008-04** Counterfeit Parts Supplied to Nuclear Power Plants
- **IN 2007-19** Fire Protection Equipment Recalls and Counterfeit Notices
- **NRC Bulletin 1988-010** Nonconforming Molded-Case Circuit Breakers



Questions

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