

Digital Instrumentation and Control Inspection IP 52003 Changes

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Digital I&C Inspection items

- Inspection Procedure (IP) 52003, “Digital Instrumentation and Control Modification Inspection,” is used for major digital modifications that a Region would like to inspect.
- Not a ROP Baseline IP (IMC 2515 Appendix C)
- These modifications required a license amendment

ISG-06 Revision 2

- Digital Instrumentation and Controls (I&C) Interim Staff Guidance (ISG)-06, Revision 2 contains licensing review guidance for the Tiered (or Traditional) Review Process and the new Alternate Review Process (ARP)
- The Tiered Review Process is based on the review and approval of a completed design that has undergone factory acceptance testing
 - The staff's licensing review is focused on the system architecture and the lifecycle development outputs

ISG-06 Revision 2

- The ARP allows for approval of a license amendment (LA) for digital I&C modifications prior to licensee's completion of system design or development.
 - The staff's licensing review is focused on the system architecture, development plans and the licensee's vendor oversight plan (VOP)
 - The VOP documents the activities that, when executed, will ensure that the vendor develops the system in accordance with the amendment

Digital I&C Inspections

- Inspections for a modification approved using the Tiered Review Process focus on site activities like Site Acceptance Testing (SAT) and system installation
- Inspections for a modification approved using the ARP focus on those licensee and vendor implementation and test activities that take place after the design is approved, as well as site activities (e.g., SAT)

Digital I&C Inspections

- For the ARP, NRC's inspection approach adjusted from verifying installation activities to also verifying that the system was designed, developed, tested in accordance with the amendment
 - Vendor inspections during modification development (no change to NRC vendor inspection process)
 - Inspection using IP 52003 to verify the licensee performs its VOP after the amendment is issued.

IP 52003 changes

- Update to IP 52003
 - Added inspection of licensee oversight of vendor for LA approved under the ARP
 - Additional inspection hours for VOP inspections
 - Inspection of licensee oversight activities to be performed at vendor facility and licensee site.
 - Incorporate lessons learned during NRC inspections performed on digital I&C systems used in the AP1000 units at Vogtle.
 - Regional led inspections with potential technical support from HQ.

Questions?