

# 3rd Workshop on Vendor Oversight for New Reactor Construction

NRC's Vendor Inspection & Quality Assurance Update

Kerri Kavanagh, Chief  
Quality Assurance Branch, Office of New Reactors



# Vendor Inspection and Quality Assurance (QA) Branches

- Accomplishments since the June 17, 2010 Vendor Oversight for New Reactor Construction Workshop:
  - ~ Completed more than 50 vendor and quality assurance implementation inspections
  - ~ Implemented the Vendor Inspection Program (VIP) Plan
  - ~ Became the Vendor Inspection Center of Expertise (COE)
  - ~ Updated our Public Website

# Vendor Inspection Program (VIP) Plan

- VIP Plan was developed in response to a recommendation made by the NRC's Office of the Inspector General (OIG) during an audit of our Vendor Inspection Program
- The VIP Plan establishes goals, priorities, performance metrics and resource management strategies for vendor activities
- VIP Plan is publicly available
  - ~ <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp.html>
  - ~ Agencywide Document Access and Management Systems (ADAMS Accession No. ML12094A111)

# Center of Expertise (COE)

- The Vendor Inspection Center of Expertise (COE)
  - ~ Streamlines management chain for vendor inspections
  - ~ Formalizes coordination and serves in a support role to Allegations and Operating Experience/Construction Experience to strengthen vendor program and ensure uniform enforcement
  - ~ Evaluates the need to integrate efforts with the reactor oversight program for a limited assessment of licensees' procurement programs, a proactive strategy identified in the agency wide staff assessment of counterfeit, fraudulent, and suspect items (CFSI).
  - ~ To re-align critical resources based on evolving NRO workload and responsibilities

# Public Websites

- The Quality Assurance for New Reactors Website offers a variety of information including:
  - ~ QA Implementation Inspection Reports and Applicant/Vendor Responses
    - <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/qual-assure-license/inspect-reports/2011/>
  - ~ Vendor Inspection Reports and Vendor Response
    - <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp-reports/2012/>
  - ~ Regulations, Guidance, and Communications for New Reactors
    - <http://www.nrc.gov/reactors/new-reactors/regs-guides-comm.html>
  - ~ Workshops on Vendor Oversight for New Reactor Constructions
    - <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-oversight.html>

# Appendix B and NQA-1

- Appendix B to 10 CFR 50 is the regulatory requirement for QA which applies to Applicants and Licensees (and contractually imposed upon safety-related contractors)
- The American Society of Mechanical Engineers (ASME) NQA-1 is a standard for implementing quality assurance requirements
- The NRC has endorsed NQA-1-2008 and NQA-1a-2009 as an acceptable method of meeting Appendix B in Regulatory Guide (RG) 1.28, Revision 4

# Common Appendix B Misunderstandings

- Invoking NQA-1-2008 and NQA-1a-2009 alone in procurement documents does not meet the regulatory requirements for safety-related components or services
- Procurement documents should invoke Appendix B
- Meeting the intent of Appendix B does not fulfill the regulatory requirements of Appendix B
- Vendor should be implementing a documented Appendix B QA program for their scope of supply

# NQA-1 and ASME NCA 4000

- NCA-4000 provides quality assurance requirements for Class 1, 2, 3, CS, MC, and CC items
- ASME Section III subsection NCA-4000 requires use of NQA-1 for code activities
- NQA-1 and NCA-4000 work together to meet the requirements of Appendix B for component manufacturers
- 10 CFR 50.55a requires the use of NQA-1 for ASME Section III, XI and OM Code activities



# ISO 9001 and Appendix B

- ISO 9001 does not meet the requirements of Appendix B
- SECY-03-0117 reviewed ISO 9001-2000 against the existing framework of Appendix B
- ~ <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/quality-assure-regs.html>

# Safety Culture

- The Commission defines **Nuclear Safety Culture** as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.



**Consider safety culture at construction sites and vendors facilities throughout the supply chain**



# Questions

