



Nuclear Oversight Conference

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NRC Vendor Oversight Activities

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Topic Areas

- Oversight of Vendors
- NRC Vendor Inspection Activities
- NUPIC Audit Observation
- NRC Vendor Inspection Findings
- Counterfeit, Fraudulent, and Suspect Items
- Regulatory Issue Summary on 10 CFR Part 21
- NQA-1/Regulatory Guide 1.28 Revision 4
- 2nd Workshop on Vendor Oversight for New Reactor construction

Oversight of Vendors

Licensees

**Industry Auditors
(NUPIC)**

**Consensus Standards
Organizations (ASME/ANI)**

Contractors/Vendors

Sub-contractors

- ▶ The ultimate responsibility lies with licensees
- ▶ NRC verifies licensees meet their responsibilities

Vendor Inspection Activities

- Vendor Inspections completed (Report Issue Dates)
 - Sargent & Lundy (October 27, 2009)
 - Sumitomo Metal Industries (November 13, 2009)
 - Curtiss Wright EMD (December 4, 2009)
 - Dubose – Part 21 Inspection only (February 22, 2010)
 - Shaw Nuclear Services (April 22, 2010)
 - Sulzer Pumps Inc (May 3, 2010)

Vendor Inspection Activities

- Sandvik Materials Technology, Sweden (May 2010 -- inspection completed)
- Westinghouse AP1000 Shield Building Test Program at Purdue University (May 2010 – inspection completed)
- All vendor inspection reports are available at <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp.html>

NUPIC Audit Observation

- **Engine Systems, Inc. – Rocky Mount, NC (March 2010)**
 - 1st NRC observation of a NUPIC audit of 10 CFR Part 21
 - Previously used IP 43005 which required NRC to perform Part 21 inspection using IP 36100
 - Smooth audit execution by NUPIC team during a difficult audit
 - Audit team leader dedicated to leadership – no assigned audit sections to facilitate the day to day actions
 - Diversity in scope at ESI
 - ESI performs extensive commercial grade dedication including Mechanical/Electrical/Electronics and Services
 - Parts include new/refurbished/repaired
 - Projects include design/modification/fabrication/testing
 - On-site Field Services

NUPIC Audit Observation

- **Engine Systems, Inc. – Rocky Mount, NC (March 2010)**
 - Conclusions
 - Audit team failed to conclude that ESI's internal audit process was ineffective, even though, at the conclusion of the audit, 28 issues had been identified resulting in 10 potential findings.
 - Discrepancies existed between the scope of supply listed in the Audit Notification letter, the Audit Plan, the Audit Report, the PBSAs, and what was actually audited by the NUPIC team while at ESI.
 - It was unclear from the issued audit report which of the supplier's products were evaluated by the audit.

2009/2010 Vendor Inspection Activities

•The 2009 QA Implementation Inspections included:

GE-Hitachi (2) South Texas Project (STP)
Southern Nuclear SC Electric & Gas (Summer STP / Toshiba)
Detroit Edison (Fermi)

•The 2009 Vendor Inspections included:

GE-Hitach CoreStar
Dresser Doosan
Wyle Labs Conval
SGT Nova Machine
Flowserve JSW
Crosby Valve Creusot Forge
Tioga Pipe Sargent & Lundy
Sumitomo Curtiss-Wright
Energy Steel Namco

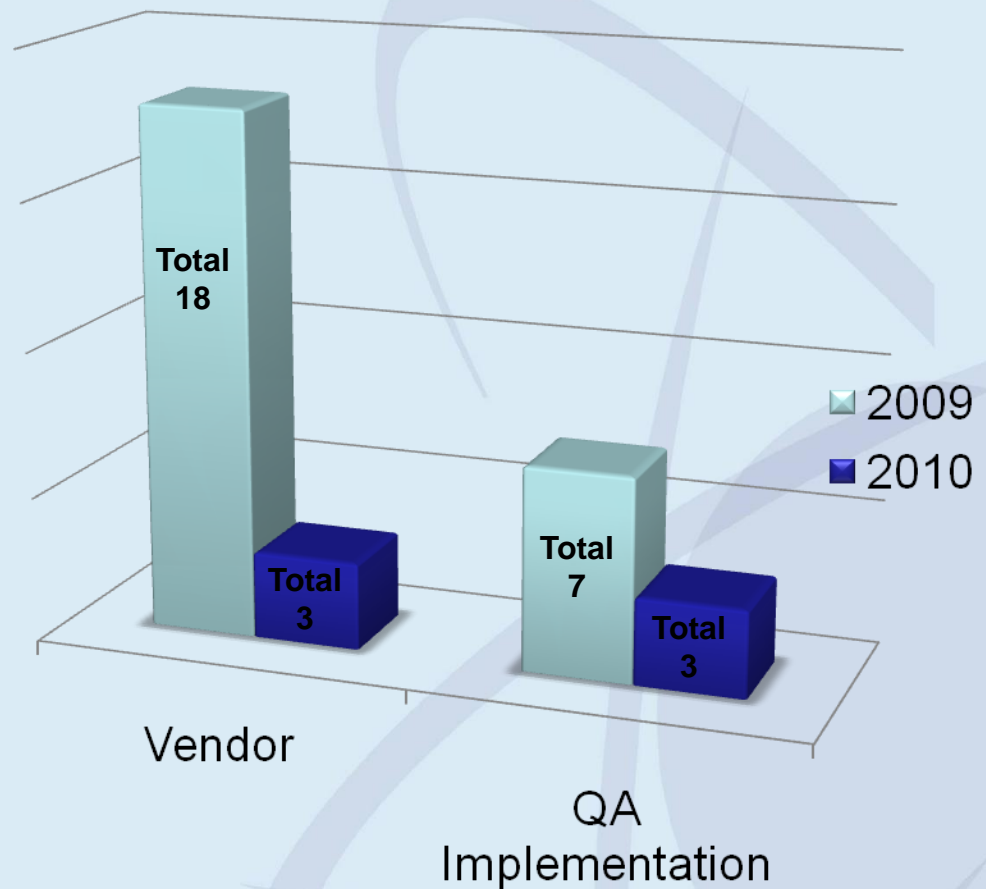
•The 2010 Vendor Inspections included:

Shaw Nuclear Services
Dubose Sulzer pumps

•The 2010 QA Implementation Inspections included:

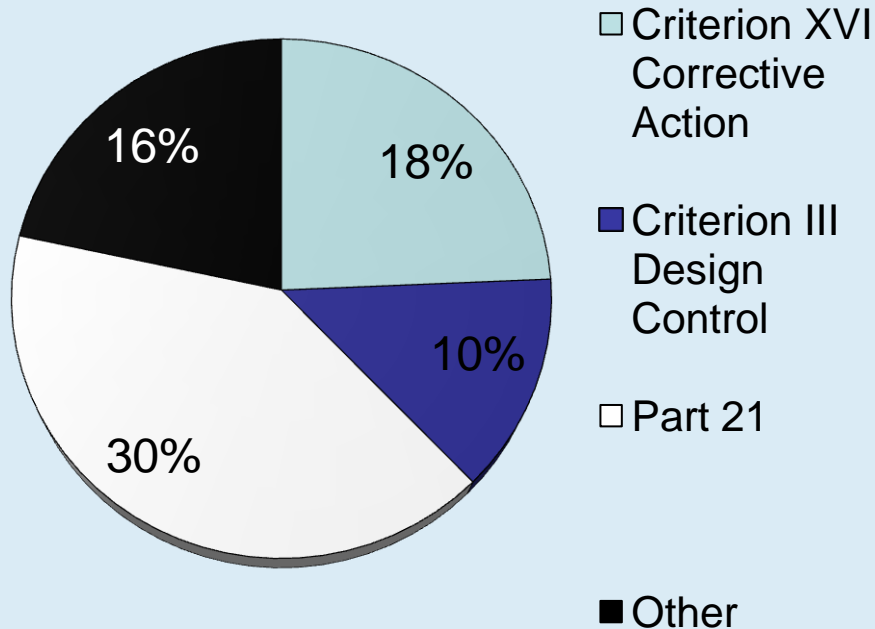
Progress (Harris/Levy)
STP (DC Amendment)
TVA (Bellefonte)

* Does not include observations with foreign regulators



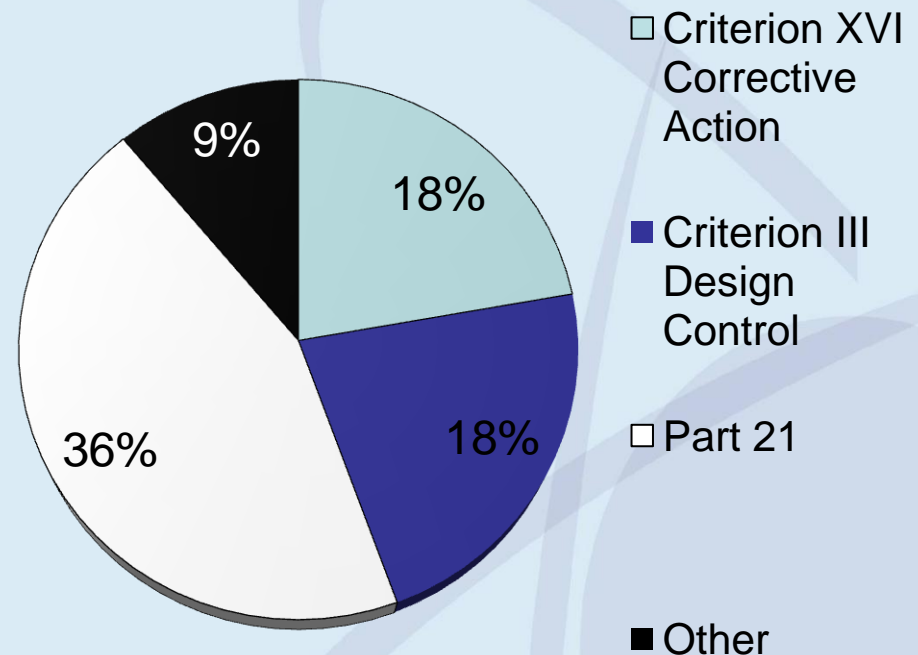
Vendor Inspection Findings

FY 2009



**Total – 57 (18 Inspections)
Inspection Findings (3.0)**

FY 2010



**Total – 11 (6 Inspections)
Inspection Findings (1.8)**

Recent Issues

- Licensee oversight of contractors performed under Appendix B program
- Licensee must retain control of contractors
- Contractors must implement Appendix B requirements
- Commercial Grade Dedication is an Appendix B activity
- Procedure adherence and documentation

International vendor oversight practices

- Licensee's role on the oversight process should include the following elements
 - Consider the safety significance of the product or service
 - Qualifications of the contractor
 - Adequate oversight of contractors work
 - Periodic assessment
- Key considerations for licensee oversight

Counterfeit, Fraudulent, and Suspect Items

- Current and past operating experience
- Inspection activities being refined
- Interacting with broader Federal community
- Assessing industry ability to identify
- Licensees are accountable

10 CFR Part 21 Regulatory Issue Summary (RIS)

- RIS 2010-05 issued May 24, 2010, to clarify the NRC's regulatory position regarding the applicability of 10 CFR Part 21 reporting requirements to standard design certification or design certification rule (DCR) applicants before and after the DCR is issued by the NRC.
- Part 21 Reporting requirements are applicable to 10 CFR Part 52 licensing and approval processes consistent with certain key principles.

Proposed 10 CFR Part 21 Rulemaking

- Staff is evaluating the benefits of amending 10 CFR Part 21 to include the necessary language to allow commercial-grade dedication in connection with early site permits, design certifications, combined licenses, and manufacturing licenses.
- The staff is also considering revising the requirements contained in 10 CFR Part 21 and 10 CFR 50.55(e) in a more comprehensive rulemaking.
- The staff intends to prepare new regulatory guidance in parallel with the rulemaking to add further clarification on the NRC's expectations regarding the implementation of 10 CFR Part 21 and 10 CFR 50.55(e) requirements.

NQA-1/Regulatory Guide 1.28 Revision 4

- On June 7th, NRC staff issued Revision 4 to Regulatory Guide 1.28, “Quality Assurance Program Criteria (Design and Construction)” for acceptance of the NQA-1-2008 Edition and the NQA-1a-2009 Addenda.
 - Includes Part I and II Requirements
 - Identifies specific Regulatory Positions
- http://adamswebsearch2.nrc.gov/idmws/doccontent.dll?library=PU_ADAMS^PBNTAD01&ID=101550202

NQA-1/Regulatory Guide 1.28 Revision 4

- ASME/NRC working on revision to Section III, Subsection NCA-4000 to incorporate the NQA-1-2008 Edition/2009-1a Addenda for N-type certificate holder activities.
- NRC continues interactions in ASME NQA-1 standardization activities
 - Subpart 2.7, “Quality Assurance Requirements for Computer Software for Nuclear Facilities,” task group is addressing commercial grade software dedication

2nd NRC Vendor Oversight Workshop

- Topics include:
 - Perspectives on Vendor Oversight
 - SCWE and Safety Culture
 - Counterfeit, Fraudulent, and Suspect Items
 - ASME Survey Process
 - NRC Enforcement Policy
- Focus Areas:
 - Oversight of sub-contractors
 - Historical NUREG 1055 lessons

Bottom Line

- Licensees should work with their vendors to ensure that vendor Appendix B and 10 CFR Part 21 programs adequately implement the requirements imposed in the procurement documents
- Vendors should be fully knowledgeable of all regulatory requirements and technical specifications imposed by licensees in procurement documents



Questions?