



## **NRC Report**

# **NUPIC General Membership Meeting Irvine, CA**

**Greg Galletti - Office of New Reactors  
Sr. Operations Engineer – CQVP**

# Topic Areas

- Vendor Inspection Activities
- Recent NRC Vendor Workshop
- International Cooperation
- NRC/NQA-1 Interaction update

# Vendor Inspection Activities

- Vendor Inspections completed since October NUPIC meeting (Report Dates)
  - Fairbanks Morse Engine (10/2008)
  - Babcock and Wilcox (B&W) Nuclear Operations Group, Inc. (10/2008)
  - Energy Steel and Supply (11/2008)
  - Enertech (12/2008)
  - Weir Valves & Controls (12/2008)

# Vendor Inspection Activities (NUPIC evaluation - NRC workshop)

| Code | Description                               | # Findings |
|------|-------------------------------------------|------------|
| A    | Commercial Dedication                     | 13         |
| B    | Measure and Test Equipment                | 1          |
| C    | Software                                  | 0          |
| D    | Design Control/Change                     | 2          |
| E    | Special Processes                         | 3          |
| F    | Procurement                               | 3          |
| G    | Fabrication/Assembly/Shop Floor Operation | 3          |
| H    | Testing/Inspection                        | 3          |
| I    | Non-conformance/Corrective Action Program | 48         |
| J    | Programmatic/Other                        | 13         |

# Vendor Inspection Activities (5 NRC Inspections Since 10/2009)

| Code | Description                               | # Findings |
|------|-------------------------------------------|------------|
| A    | Commercial Dedication                     | 3          |
| B    | Measure and Test Equipment                | 1          |
| C    | Software                                  | 0          |
| D    | Design Control/Change                     | 2          |
| E    | Special Processes                         | 1          |
| F    | Procurement                               | 6          |
| G    | Fabrication/Assembly/Shop Floor Operation | 0          |
| H    | Testing/Inspection                        | 3          |
| I    | Non-conformance/Corrective Action Program | 3          |
| J    | Programmatic/Other (Part 21)              | 8          |







# FY09 NRO Vendor Inspection Plans

- Commercial Grade Dedication organizations
- Forgings suppliers for AP1000, EPR
- Manufacturing for SG tubes AP1000 and EPR
- Manufacturing for valves (all Design Centers)
- STP alternate vendor & ABWR component fabrication
- Modular Construction Facilities



# Engineering Design Verification Inspection

- Completed first EDV at Westinghouse, Monroeville, PA during week of October 27–31, 2008 as part of AP-1000 design certification activities.
  - Aim to verify accurate “translation” of requirements in certified designs into applicable design, procurements, and construction documents by DC Applicant/Engineer-Procurement-Constructor (EPC) entity
- Pilot use NRC IP 38702 - EDV
- Inspection Report (issued 12/2008)

# Engineering Design Verification Inspections

- Lessons Learned
  - Better coordination needed for timing of inspection
  - Need closer interaction with design authority to define inspection scope and sequence
  - Need to better understand challenges posed by licensing and design activities proceeding in parallel
  - Overall level of effort and resources needed not yet revealed
  - EDV must be performed when the design details are sufficiently complete to facilitate a comprehensive and meaningful review.
- Future EDV inspections planned for EPR and US-APWR designs.



# NRC Vendor Oversight Workshop

- Held December 10 & 11 at the North Bethesda Marriott by NRC Maryland offices. Presentations by NRC, NEI, NUPIC, NIAC, Licensee, and Vendors.
- Main topic areas
  - Commercial Grade Dedication
  - Part 21
- Nearly 600 participants
  - 162 vendors
  - 11 new plant applicants
  - 10 plant owners/operators
  - 8 reactor design companies
  - 11 construction companies
  - 7 U.S. government organizations
  - 2 foreign regulators
  - 6 nuclear fuel suppliers/processors/disposers
  - 2 news organizations

# NRC Vendor Oversight Workshop

- Received over 300 written comments and questions
  - Part 21 (200)
  - Sampling (50-75)
  - Critical Characteristics (50-75)
  - General QA Topic (50-75)
  - Part 72 MNSS (50)
- Answers will be posted to NRC website in groups. First 150 tentatively by February.
  - <http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance.html>
- All presentations have been placed on NRC website.
  - <http://www.nrc.gov/public-involve/conference-symposia/vendor-oversight/index.html>



















# International Cooperation





# International Cooperation

- Active member of newly-formed Vendor Inspection Cooperation Working Group (VICWG) - Part of Multinational Design Evaluation Program (MDEP)
- Meeting held in October 2008 in Dijon, France.

## Overview of Recent Activities

- Observed United Kingdom Nuclear Installation Inspectorate (NII) and Environmental Agency (EA)
  - Interactions with General Electric and Westinghouse regarding reactor designs
  - Conducted vendor inspection of Korean based-vendor in parallel with Korean Institute of Nuclear Safety (KINS)
  - Observed KINS inspections at U.S.-based vendors
  - Observed French Autorité de Sûreté Nucléaire (ASN) inspections at France-based vendors
- Next meeting scheduled for April 21-22, 2009 in Paris



# ASME NQA-1/NRC interactions

- NRR staff has developed a revision to Regulatory Guide 1.28 for potential endorsement of the NQA-1-2008 Edition
- Draft RG 1.28 should be released for public comment in near term
- ASME/NRC working on revisions to Section III subsection NCA 4000 to incorporate NAQ-1-2008 Edition



# Questions