



**U.S. NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

**Quality Assurance and  
Vendor Inspection Program  
for  
New Reactors**

Public Meeting  
July 17, 2007



# Topic Areas

- Pre-COL Audits
- Lessons Learned during South Texas Project Pre-COL Audit
- Oversight of industry's vendor activities (Inspection Procedure)
- NRO Vendor Inspection Program
- Future Quality Assurance and Vendor Inspection Activities



# COL Application Audit

- Manual Chapter 2502: Pre-COL Issuance Review
  - Inspection Procedure (IP) 35005: Pre-Docketing COL QA Controls Inspection
  - IP 36100: 10 CFR Part 21 and 10 CFR Part 55(e) Programs for Reporting Defects and Noncompliance
  - IP 45051: Geotechnical Activities (for applications not referencing an ESP)



# COL Application Audit

- Purpose
  - Verify suitability of QA processes applied to the development of the COL application
    - Support acceptance review by staff
    - Identify any programmatic issues that could affect the completeness and accuracy of the information in the application



# Audit Scope

- Review implementation of QA policies and procedures applied to the development of the COL application
- Review QA controls implemented during site characterization activities (for applications not referencing an ESP)
- Review adequacy of contractor oversight by COL applicant



## Lessons Learned

- **Timing is crucial** – COL application must be sufficiently complete for a meaningful audit to be conducted
- Emphasis on design control processes (incorporation by reference, departures from DCD, and site-specific aspects)
- Contractors' scope of work needs to be clearly defined and identified
- Audit focus is **implementation** of QA programs and processes needed to yield a high quality COL application
- Early staff interaction with COL applicant and contractors fosters audit efficiency and effectiveness



## **Oversight of Industry's Vendor Activities**

- Manual Chapter 2507: Vendor Inspection Program for New Reactors
  - Inspection Procedure 43005
- Objectives:
  - Observation of industry's activities
  - Inspection of the supplier's 10 CFR Part 21 program



## **Oversight of Industry's Vendor Activities**

- **Documentation:**
  - Trip Report to document the effectiveness of the industry's activities
  - Inspection Report to the vendor to document observation and findings on the 10 CFR Part 21 program





# NRO Vendor Inspection Program

- IMC 2507 – Construction Vendor Inspection Program for New Reactors
- SECY Paper
- International Regulatory Oversight
  - Currently being developed under Multinational Design Evaluation Program (MDEP)



# **Future Quality Assurance and Vendor Inspection Activities**

- 3 Pre-COL Audits
- 2 Vendor inspections
- Allegation-related inspections
- 1 NUPIC observation