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Vendor Inspection Program for New Reactors NUPIC Vendor Meeting

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Topic Areas

- NRO Vendor Inspection Program
- Vendor SECY Paper
- Japan Steel Works audit
- Observation of NUPIC joint utility audit at Southern Testing Services
- ASME NQA-1/NRC interactions
- Part 21 Regulatory Issue Summary (RIS)
- Future Vendor Inspection Activities

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NRO Vendor Inspection Program

- NRC Reorganization in February 2007
  - Two Quality and Vendor Branches in NRO Division of Construction Inspection & Operational Program
  - One Quality and Vendor Branch in NRR Division of Engineering
- NRO developing a vendor inspection program under the construction inspection program
  - Build on existing NRC vendor inspection program
    - Increase inspection frequency

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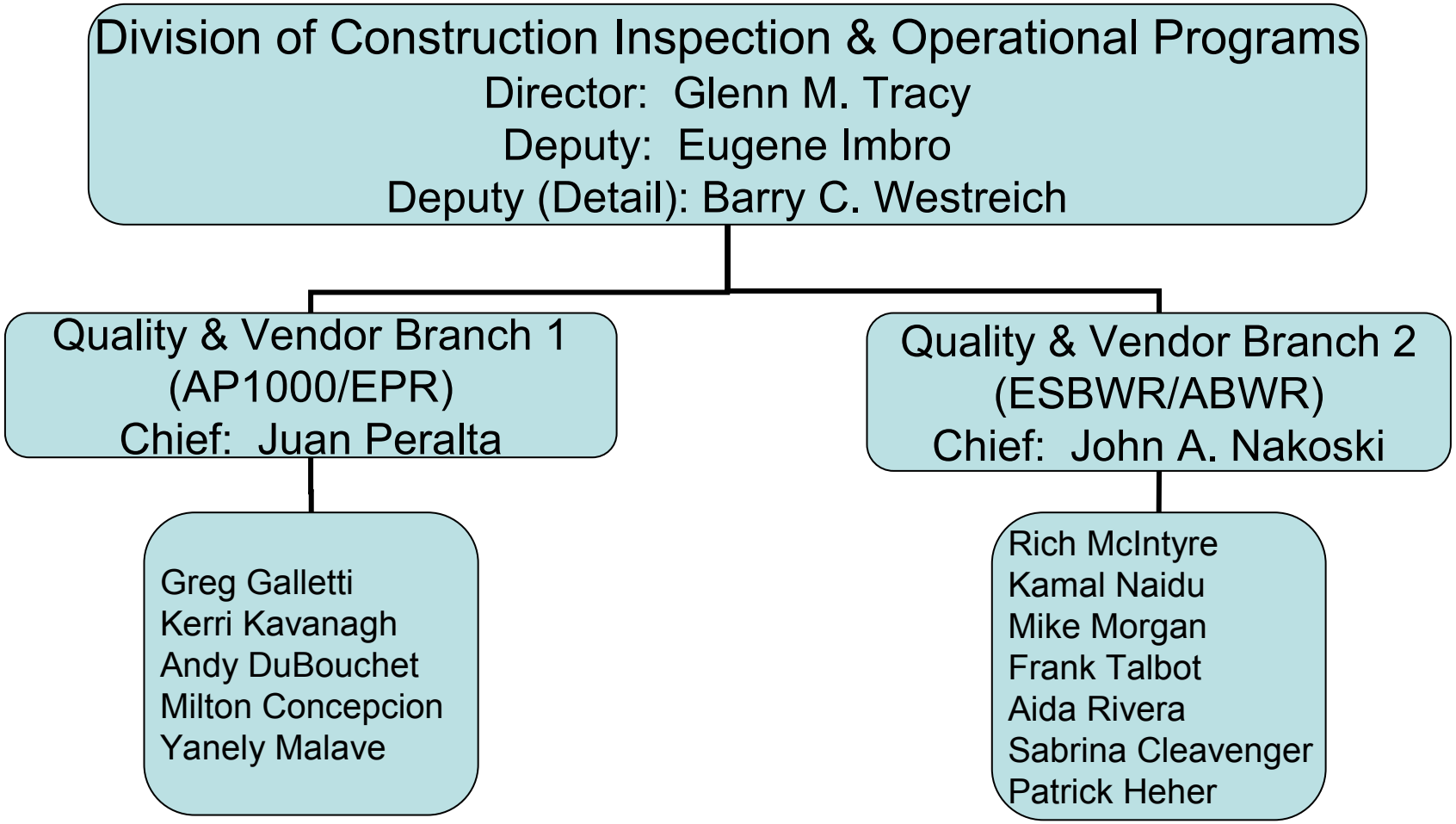
NRO Vendor Inspection Organization



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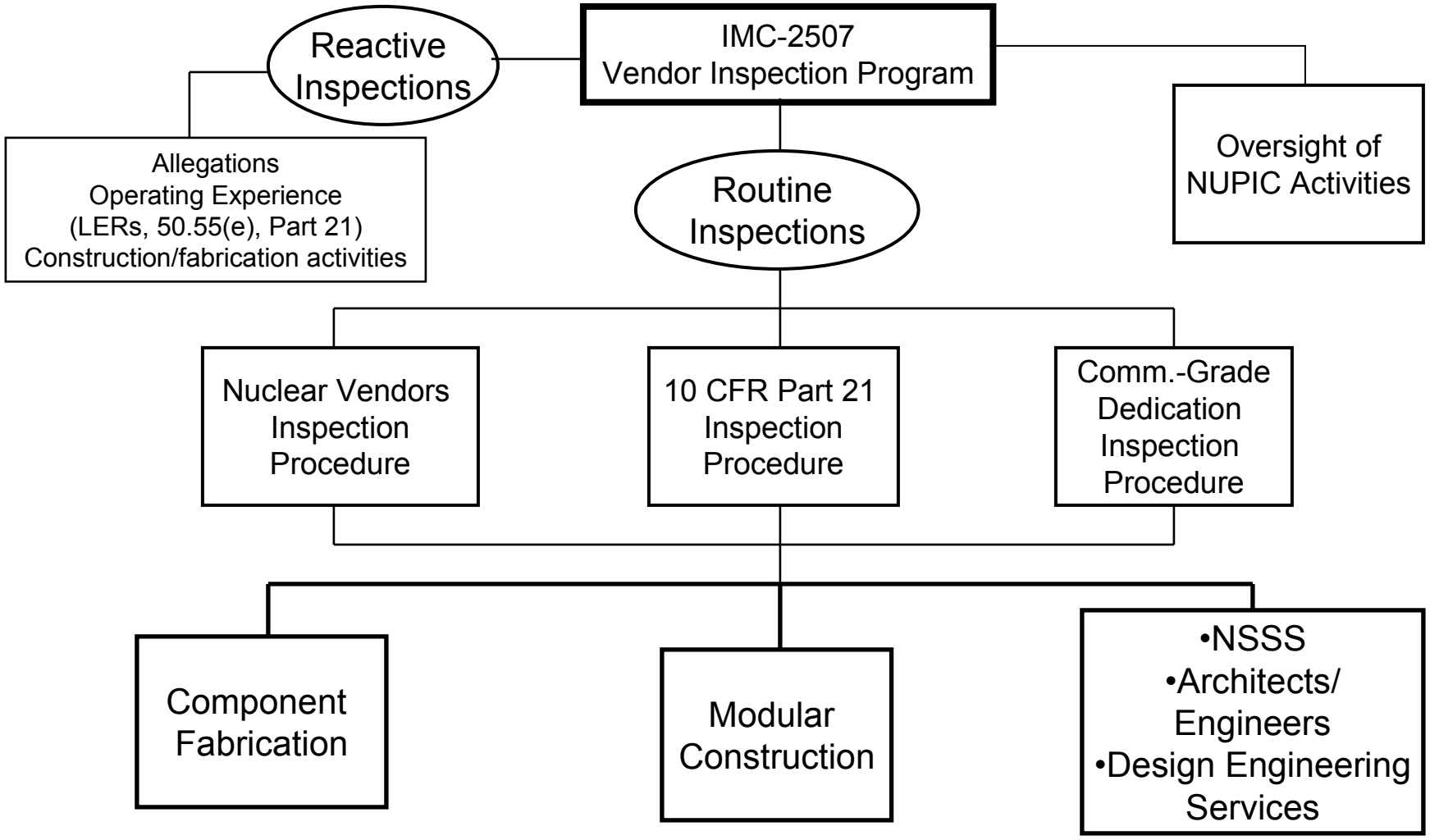
NRO VIP Overview



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NRO Vendor Inspection Program

- IMC 2507 – Construction Vendor Inspection Program for New Reactors
  - Routine Inspection Procedure
    - Supports ITAAC verification
  - Reactive Inspection Procedure
    - Based on input from CIP ITAAC activities
  - Procedure for oversight of industry's vendor activities
    - NRC oversight of third party auditors (e.g. NUPIC)

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NRO Vendor Inspection Program

- To the extent practical leverage international regulatory oversight
  - Currently being developed under Multinational Design Evaluation Program (MDEP)
- NRC participation in Codes & Standards Development
  - ASME Section III & QAI
  - ASME NQA-1

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Commission Paper on Vendor Inspection Program

- Purpose:
  - To inform the Commission that the Office of New Reactors (NRO) is enhancing the NRO Vendor Inspection Program (VIP) in support of new reactor licensing and construction
  - To describe these enhancements, including the development of program guidance and an anticipated increase in audit and inspection activities.
- Significant factors that led to expand oversight of nuclear component suppliers include the following:
  - the entry of new suppliers to the U.S. nuclear industry
  - the use of modular construction techniques
  - inspections, tests, analyses, and acceptance criteria (ITAAC) verification
  - engineering and licensing support services to most applicants

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Pilot Audit at JSW – April 2007

- Purpose:
  - To become knowledgeable of the scope of supply, manufacturing processes, and quality activities that JSW performs in support of the supply of safety-related and ASME-certified components for US utilities
  - Gain insight on NRC's vendor inspection program through draft inspection procedures
  - Review ASME Section III Code data package assembled by JSW for April 2007 ASME Nuclear renewal survey demonstration purposes

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Pilot Audit at JSW – April 2007

- Results and Lessons Learned
  - NRC has reasonable assurance that JSW is supplying components that meet ASME Code and NRC quality requirements.
  - Having available the level of information needed to support an ASME recertification (ASME Code Data Report and supporting documentation) enhances the efficiency and effectiveness of NRC inspection of vendor quality assurance programs.
  - Vendors' understanding of the implementation of 10 CFR Part 21 requirements may not be consistent with NRC requirements and staff guidance.
  - NRC vendor inspections should verify that Codes and Standards are implemented consistent with NRC's requirements (e.g., IN 86-21).

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NUPIC audit at Southern Testing Services

- On April 23-27, 2007, NRC staff observed the NUPIC audit at Southern Testing Services (STS) in Knoxville, Tennessee
- Purpose was to assess the NUPIC QA audit process used for suppliers of components to the nuclear industry
- NRC staff provided clarification on issues related to NRC regulations, including input for a finding regarding 10 CFR Part 21, “Reporting of Defects and Noncompliance”
- NRC staff concluded that the NUPIC audit process was effectively implemented by the audit team and resulted in sound performance-based findings (7) for failure to adequately implement QA program requirements

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ASME NQA-/NRC interactions

- NRO, NMSS and NRR staff participated in ASME NQA-1 Committee meetings on April 17-18, 2007
- The NRC staff had previously identified issues during the NRC 2005 side by side evaluation of the 1994 and 2004 editions of the NQA-1 standards
- NRC issues have been resolved at the NQA sub-committee level.
- The staff expects to receive the final resolution of the issues during balloting at the NQA main committee level later this year.

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Part 21 Regulatory Issue Summary

- The purpose is to inform industry about examples of inadequate implementation of 10 CFR Part 21 provisions
- Describes findings from NRC inspections at vendors facilities and NRC observation of NUPIC joint utility audits
- Examples
  - Errors in a vendor's evaluation, conclusion, and recommended reporting
  - Vendor not meeting the timeliness requirements
  - No procedural guidance existed for determining if a significant condition adverse to quality as part of the corrective action program within the Appendix B to 10 CFR Part 50 (Appendix B) QA program warranted a 10 CFR Part 21 evaluation.
  - Vendor evaluations performed under the corrective action program were utilized as the 10 CFR Part 21 evaluations

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NRO Future Vendor Inspection Activities

- NRO pilot inspections
- Allegation-related inspections
- Support NRR vendor inspection activities

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Questions??