


**FENOC**  
FirstEnergy Nuclear Operating Company

Engineering Inspections and Oversight –  
Industry Perspective

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NRUG Chairman



Safety, Teamwork, Performance, Pride.

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What.....

- **Engineering Team Inspections are intense**
  - Site Resources go well beyond the engineering groups
  - Deep dives are useful for staff to understand design and licensing bases
  - NRC resources are impacted as well
    - Teams include contractor specialists
- **Look for Opportunities to continue effectiveness but be more efficient**
- **Industry proposed some credit for self-assessment**
- **Explore the basis and intent behind possible credit to:**
  - Reduce direct inspection hours
  - Lengthen the cycle between NRC Team Inspections
  - Combine some inspections together

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Why.....

- **In 2014 Industry engaged NRC on CDBI**
  - Inspections were a significant resource burden
  - Information gathered from actual inspections
    - Inspections averaged approximately \$1M in resource
    - Few of the findings were GTG with none in last 4 years (2010-2014)
  - NRC Revised CDBI
    - Resulting inspection regime continued to have opportunities for improvement
- **NRUG/RUGs focused on inspections and impact on site resources**
- **Industry Regulatory Issues Working Group**
  - Intense interest in inspection programs and impacts
  - ROPTF engages well with NRC staff



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How.....

■ Major fleet representatives

- Regulatory, Engineering CFAMs, Engineering Leadership, Tacticians

Industry Working Group

■ Objective and Real

- Principles of good regulation
- Primary - Effective and Efficient
  - Secondary goal to reduce burden
- Establish test criteria to ensure objectivity
- Balanced discussions – ex-NRC employees specifically assigned to team



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Test Criteria (June 6, 2017 Meeting)

Industry Interests

1. Right-size # of inspection hours
2. Reduce impact plant staff
3. Eliminate unnecessary challenges to approved design basis
4. Eliminate unnecessary duplication and overlap



NRC Interests

1. Maintain principles of good regulation
2. Ensure public health and safety are maintained or enhanced
3. Maintain transparency of inspection information
4. Reduce burden on specialized regional resources and reliance on contract resources

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Industry Proposal for Discussion in Public Meetings

- Adjust inspection cycle and re-baseline ROP inspection hours
- Retire inspections which have served their purpose
- Reduce Overlap and duplication of focused inspection areas
- NRC observation of and credit for licensee self-assessments
- Credit focused, responsive inspections



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## Use of Self-Assessments

- **Present Practice:**
  - Licensee performs SA to prepare for team inspections – look for latent issues and inspection vulnerabilities
  - Extensive cross-functional resources expended but variability in depth and breadth exists
  - All findings entered into corrective action process available to NRC inspectors
- **Proposed Practice:**
  - Licensee performs LPA (Licensee Performance Assessment) to find potential latent issues in design basis.
  - Opportunity to:
    - Replace a focused inspection during an NRC inspection cycle
    - Demonstrate proficiency at finding and fixing our own problems – a foundation of the ROP
    - "Tune up" the organization on design and licensing basis



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## Licensee Performance Assessment (LPA)

- **Use of NRC-endorsed standard procedure** (reliability, openness, transparency)
  - Depth of assessment driven by templates with standard questions
  - Samples chosen by NRC and Licensees as well as driven by OE
- **Incorporated into process:**
  - NRC review of LPA plan (openness, independence, efficiency, clarity)
  - OE, Licensee and NRC directed samples (independence, reliability)
  - NRC receipt of LPA report (openness, transparency)
  - Independent team member(s) (independence)
  - Cross-functional requirements (reliability)
  - Conduct of LPA available to NRC observation/inspection (openness)
- **Not an option for plants in Column 3 and 4 of Action Matrix**

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## Challenging Topics

- **Objectivity of assessment**
  - Licensees may have different bias than NRC inspector
  - Treatment of latent conditions found during assessment
    - Enforcement?
    - CAP Treatment in light of new CAP philosophy
- **Focus on prevention of latent conditions**
  - Human performance versus programmatic controls
  - Latent conditions not readily identifiable through inspection activities alone – often revealed through events
- **Variability of "assessment" performance between Licensees including sharing of OE**
- **Transparency to Public**
  - Detail must be at least as comprehensive of present NRC IRs

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## Ahead in 2018

Target	Task
1Q2018	Draft Industry Procedure 80% initial draft complete, fine tuning worksheets to be comprehensive
2Q2018	Receive Industry and NRC Review and comment (NRC reviews will be a public process)
3Q2018	Perform Pilots
4Q2018	Revise procedure from lessons learned and submit for NRC endorsement process (includes public interaction as necessary)
Beyond	Implement procedure as preparation for Team Inspections – target credit toward objectives

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## Summary

- **It is important to promote the licensee's sense of ownership of key programs, such as engineering**
  - Self-Assessments such as the LPA accomplish this ownership and will continue to be used throughout the industry
- **Self-assessments sharpen the licensee's processes and skills at finding/fixing latent issues**
- **Stakeholder views on this subject are diverse and must be explored thoughtfully and respectfully to identified shared interests**

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Thank You

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