RIC 2006
Session W4E
ROP Assessment Program Update

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U.S. Nuclear Regulatory Commission
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SDP Timeliness

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March 8, 2006

SDP Objectives

- Characterize the significance of inspection findings in the ROP (safety)
- Provide a basis for assessment and enforcement actions associated with inspection findings (effectiveness)
- Provide stakeholders an objective framework for communicating the safety significance of inspection findings (openness)

SDP Timeliness Background

- Commission directed SDP timeliness goal of 90 days in 2001 (SRM M010720A)
- Metric established in 2002 to directly reflect goal (SECY-02-062)
  - 100% within 90 days
- Metric revised in 2003 recognizing need to improve SDP evaluation tools (SECY-03-062)
  - FY03 (75%), FY04 (80%), FY05 (85%), FY06 (90%)
- Metric not met since inception

SDP Timeliness
Actions Taken

- Numerous assessment tools developed to evaluate findings related to at-power and shutdown conditions, containment performance (LERF), fire, and steam generator tube integrity

- Significantly increased management awareness
  - SDP Active Issues Summary, counterpart meetings and briefings

- Revised SDP guidance (November 2005)
  - engage management earlier (planning SERP)
  - Use of best available information
  - Simplified vs. detailed Phase 3 analysis
  - Define assessment time for licensee in Choice Letter
  - No new information once final decision is made

SDP Timeliness
Ongoing Actions

- Best Practice initiative
  - Determine most effective approaches to better manage resolution of SDP findings
- Develop new guidance for NRC Management Review
  - Meant for findings with high uncertainty and those beyond limitations of PRA
- Develop new metric to better reflect performance (90-day goal remains unchanged)
  - Use of average with a backstop time period

SDP Timeliness Summary

- Corrective actions are improving performance and continued improvement expected
- New metric will better reflect overall performance
- Need to better align SDP process and stakeholders on overall purpose of process

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ROP Assessment Program Update

Ronald A. Jones, Senior Vice President
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March 8, 2006

Duke Energy SM

ROP Program Update

- Improved Inspection Program
  - Reflects Role of Mature Corrective Action Programs
  - Introduced Performance Indicator Concept

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- Opportunities for Refinement Exist
  - Public Interface – NRC press releases can lead to exaggerated public/media concern when actual risk is low
  - Impact of White Findings – Licensees and NRC may expend considerable effort in addressing white findings which is not necessarily consistent with safety significance
  - New ROP “Expectations” – Licensees may expend significant effort performing extent of cause/condition assessments which is not necessarily consistent with safety significance

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- Public Interface
  - Difficult to internalize 1E-6 risk
  - Annual Assessment Meetings need refinement
  - Ensure descriptions of performance deficiencies align with actual risk significance. For example;
    - "Licensee operated during the previous year with a degraded mitigation cornerstone"
  - Members of the public may perceive this statement in a manner not consistent with the calculated risk values

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- Impact of White Findings
  - Licensee awareness of potential findings sometimes does not occur prior to formal action being taken by NRC
  - Licensee reactions driven by prospect of aggregating 2 findings within 12 months
  - Scope of follow-up NRC 95002 inspections varies and is difficult to predict
  - Licensee resource reallocation to prepare for and manage supplemental inspection often not commensurate with safety significance

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- New ROP “Expectations”
  - Prevent or promptly resolve all issues > 1E-6, regardless of existing licensing requirements
  - Conduct comprehensive root cause evaluations for all issues determined to be > 1E-6
  - Conduct integrated extent of condition and extent of cause assessment after second greater than green issue has been identified

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- Conclusions
  - ROP represents an overall improvement
  - Continued refinement is needed to further remove subjectivity and effectively communicate issues to media/public

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ROP / Cross-Cutting Issues
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March 8, 2006

Importance of Cross-Cutting Issues

- Identify and highlight negative performance trends before the performance deficiencies manifest themselves as significant findings or events

RIV Identification and Review of Cross-Cutting Findings

- Inspector identification of issue.
- Branch Chief review.
- Inspection report debrief with regional management.
- Mid-cycle and End-of-Cycle reviews.

End-of-Cycle/Mid-Cycle Review Defining Threshold for Identifying Substantive Cross-Cutting Issues

- Three (3) criteria needed to identify a Substantial Cross-Cutting Issue:

  1. Multiple findings - more than 3
  2. Causal factors have common theme
  3. Concern with the licensee's scope of efforts or progress in addressing the cross-cutting area performance deficiency

Cross-Cutting Issues – Changes being considered

- Integration Safety Culture Attributes

  Human Performance

  - Decision Making, Resources, Work Control, Work Practices.

  Problem Identification and Resolution

  - Correction Action Program, Operating Experience, Self-and independent assessments.

  Safety Conscious Work Environment

  - Preventing and detecting retaliation, willingness to raise concerns.

Conclusion

- Substantive Cross-Cutting Issues are important to the implementation of the ROP
- Post-EOC critique will be performed to assess the changes to the Assessment Process
- Continue efforts to improve consistency in the implementation of cross-cutting issue guidance and integrate Safety Culture aspects

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Cross Cutting Issues Process:
Need for Better Definition and Improved Consistency

Steve Floyd
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March 8, 2006

Concerns

- Industry has noted significant increase in number of cross cutting aspects
  - From 60/year through 2002 to 392 in 2004
- Cross cutting issues average around 15
- Many sites reporting significant percentage of findings with cross cutting aspects – 60 to 90%
- Safety culture modifications to process will increase subjectivity and raise potential consequences

Needed Actions

- Define a minimum threshold or criteria establishing a cross cutting aspect
- Ensure modifications from safety culture elements are clear and concise
- Better define the exit criteria for a cross cutting issue

Conclusions

- The defining principles of the ROP include safety focus, objectivity, predictability and transparency
- The cross cutting issue process needs to reflect each of these principles

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Security/EP Issues
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March 8, 2006

Physical Protection Oversight Revisions

- Inspections (Increased Focus Areas)
- Performance Indicators
- Significance Determination Process (revised July 2005)

New Physical Protection SDP

- Baseline Findings
  - Alignment for clarity and consistency
  - Avoid duplication of assessment
- Force on Force Evaluated Exercises
  - Assess protective strategy performance
  - Risk-informed methods
- Industry proposed alternative

Security - Emergency Plan Interface

- Evaluate security impacts on E-Plan
- Examples
  - Site access points
  - Emergency classifications
  - Protective action recommendations
- IN 2005-19, “Effect of Plant Configuration Changes on the Emergency Plan”