Briefing for NRC Headquarters on NEI 16-07 "Improving the Effectiveness of Issue Resolution to Enhance Safety and Efficiency"

August 16, 2017

Purpose of today's meeting

- Brief NRC stakeholders on the origins and contents of NEI 16-07
- Hear and respond to NRC stakeholder questions and concerns
- Discuss path forward and next steps
  - For industry
  - For NRC

Origins – The Haystack Problem

- CAP originally applied to conditions adverse to quality (a small haystack)
- In that small haystack, significant items were relatively easy to recognize and manage
- Over time, CAP became a catch-all for tracking everything that needed attention (a large haystack)
- In that overgrown haystack, important items were more difficult to recognize and accord the right level of attention and effort

Origins – CNO Recognition

- CNOs recognized the haystack problem
- The first effort to address it was INPO 14-004 (November 2014), aimed at improving screening and focus
- DNP Improvement Opportunity CAP-01 [EB 16-10, March 2016], said implement INPO 14-004
- DNP Improvement Opportunity CAP-02 [EB 17-14, May 2017], aims at standardizing terms and processes, simplifying tools and clarifying guidance for tailoring effort to significance

Origins – Charge to the CAP-02 Team

- Maintain low threshold for initial entry into CAP, to ensure employees report all conditions and concerns
- Maintain CAP focus on CAQ/SCAQ (Appendix B items)
- Maintain focus on regulatory matters of importance (items outside Appendix B)
- Tailor level of investigation and causal analysis to the significance of the problem
- Address business-risk issues through other appropriate systems

Industry Milestones

- Release NEI 16-07 May 2017
- Brief utility and NRC stakeholders
  - RUG II – Completed June 20
  - RUG IV – Completed July 12
  - NRC Headquarters – August 16
  - RUG III – October 24
  - RUG I – November 28
- Update NEI 16-07 with feedback from briefings and comments and reissue as “Final” – early 2018
- Implement DNP EB 17-14 – May 2018

CAP-02 Development Team

- **Executive Sponsors**
  - Danny Bost – Southern
  - Dan Stoddard – Dominion
  - Kelvin Henderson - Duke
- **Industry Lead**
  - John Grabnar – FENOC
- **INPO**
  - Gary Waldrep
- **IBEW**
  - Anna Jerry
- **NEI**
  - David Young, Jim Slider

- **Industry Members**
  - Wally Beck – Exelon
  - Brad Castiglia – NextEra
  - Nick Conicella - FENOC
  - Dan Crofoot – Xcel
  - Joel Duhon - Duke
  - Sharon Peavyhouse – Duke
  - Reiko Perleberg – Southern
  - Rex Putnam – Entergy
  - Lanny Ratzlaff – Wolf Creek
  - Jim Schleser – Dominion
  - Tim Steele – Southern

Guiding Philosophy

Achieving the highest levels of safety and reliability requires high levels of efficiency and effectiveness

- Maintain low threshold for condition reporting and feedback to originators
- Improve timeliness and effectiveness of problem resolution by eliminating low-value process controls and administrative requirements
  - Promote greater focus on conditions affecting safety and operational performance
  - Standardize reporting, screening and processing to reduce administrative and management review time
  - Afford leaders with more time to spend in the field observing work and coaching improvements

Related Work

- As noted earlier, NEI 16-07 builds on previous CAP initiative (DNP CAP-01)
- CAP-01 was about improving screening efficiency to highlight the safety significant needles in a smaller hay stack
- CAP-02 standardizes around a common language and investigation tools – it's the next logical step

What Will Change for Licensees

- Population of items in CAP will be better defined
- Many items will be addressed at find-and-fix level, depending on perceived risk
- CARC protects and maintains industry commitments underlying the ROP (e.g., SECY-99-007 and NRC Enforcement Policy section 2.3.2)
- Industry-wide templates will be used for Equipment Failure, Human Performance, and Organizational issues
- Conditions outside the scope of CAP will be addressed through management action

What Will Not Change for Licensees

- Low threshold for reporting remains unchanged
- Safety-related and important-to-safety equipment conditions and issues of regulatory significance will continue to be managed in CAP
- CAQs must be identified and corrected
- SCAQs must have cause determined corrective actions taken to preclude repetition
- Information system(s) for tracking CAP entries will remain as the central clearinghouse for status

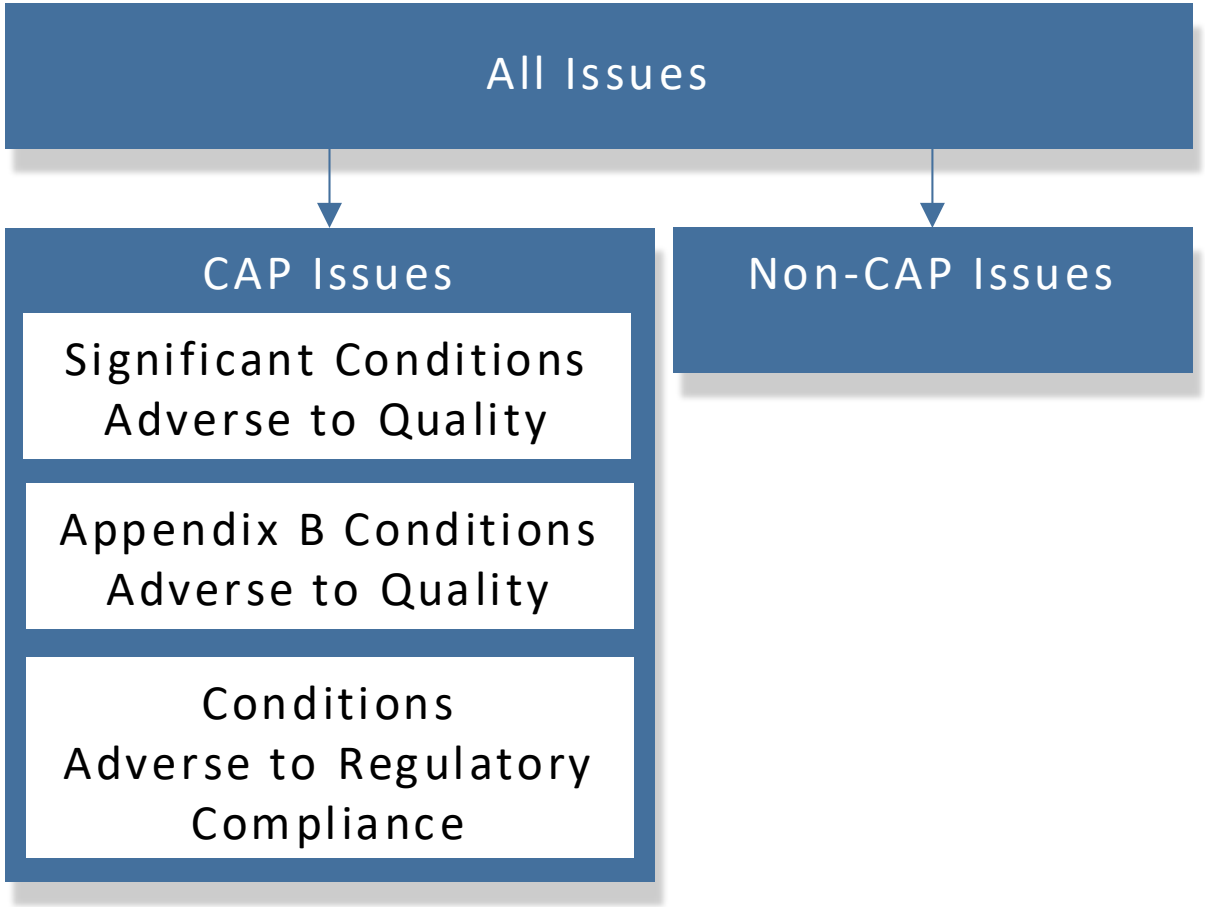
What May Change for NRC

- Inspectors may need to look outside CAP data system to confirm screening has been appropriate and that CAQ and CARC are appropriately addressed
- With the emphasis on “find and fix”, inspectors may find less documentation of formal investigation and analysis of items of lesser significance

What Should Not Change for NRC

- Effectiveness of the licensee's CAP program
- Basis for crediting licensee's CAP in NRC's decision-making processes (e.g., Enforcement Policy and ROP-based supplemental inspections)

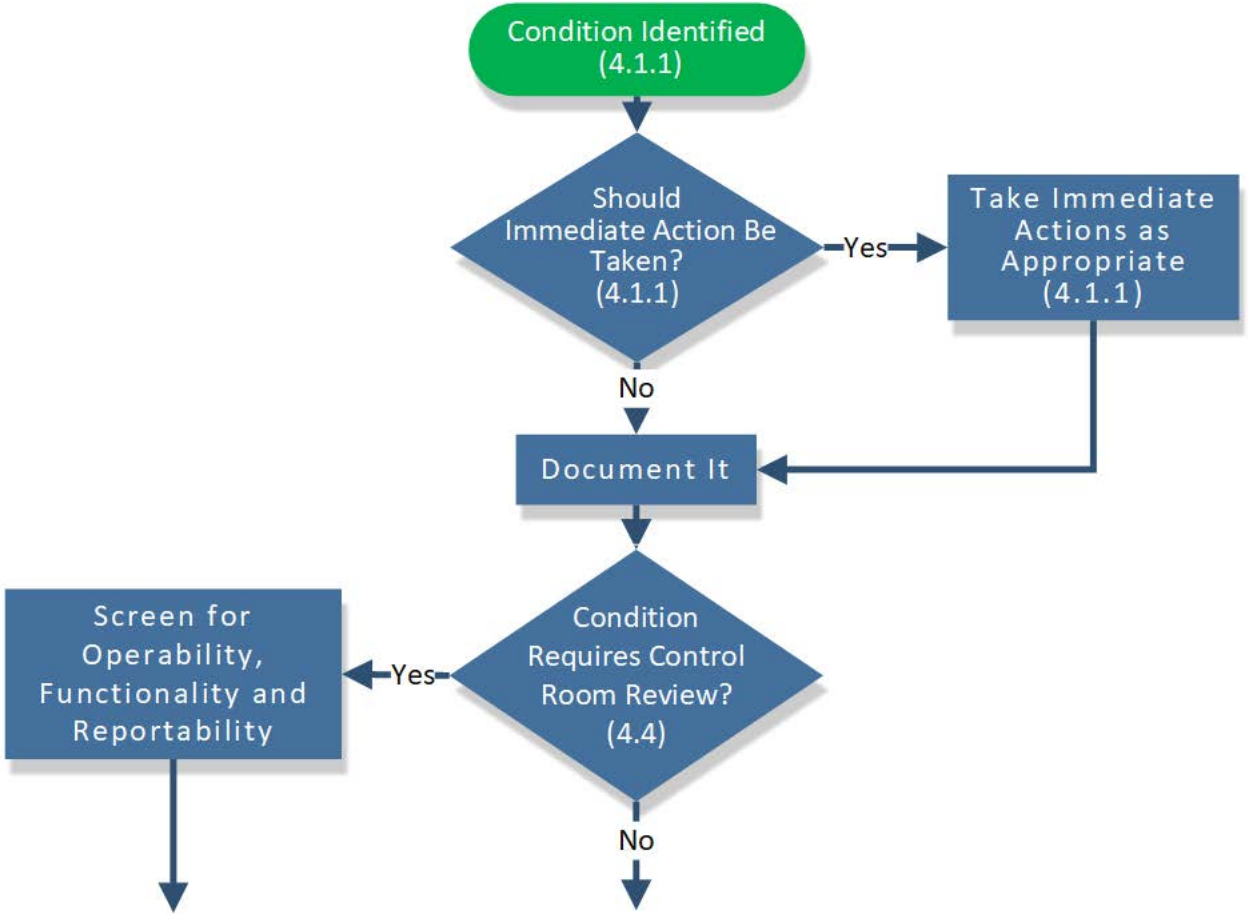
CAP Process Changes



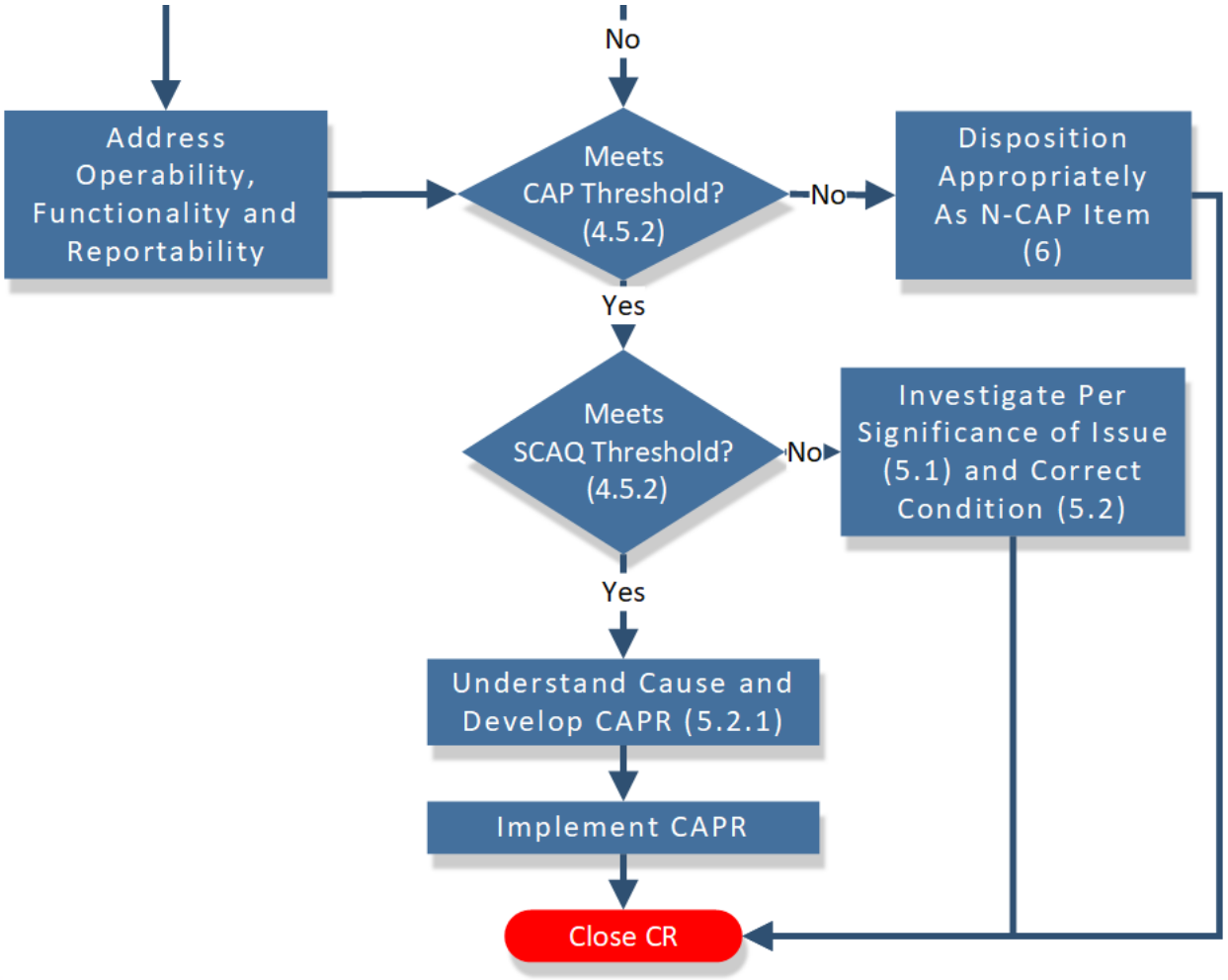
Definitions

- **Significant Condition Adverse to Quality (SCAQ)**: A condition adverse to quality that, if left uncorrected, could have a serious effect on nuclear safety.
- **Condition Adverse to Quality:** A failure, malfunction, deficiency, deviation, defect, or nonconformance associated with the performance of an activity affecting the safety-related function of a structure, system or component.
- **Condition Adverse to Regulatory Compliance:** A condition where the licensee is not in conformance with NRC regulations, inspection or enforcement processes (such as the Reactor Oversight Process), a failure to comply with a docketed commitment made to the NRC, a non-compliance with the licensee Quality Assurance program that does not consequently affect nuclear safety. Conditions Adverse to Regulatory Compliance are addressed with licensee corrective action programs. Appendix A provides some examples to enhance understanding.

Issue Resolution Process



Issue Resolution Process



Criteria for an Approved Process

- A program document or procedure describes the process
- The process identifies conditions that require generation of a CR
- Process controls:
  - Provide for identifying conditions that require a prompt review by Control Room staff (e.g., for operability, functionality and reportability determinations)
  - Prioritize and track work based on risk to nuclear safety and equipment reliability
  - Ensure that the work performed is traceable
  - Ensure that canceling, extending or changing the intent of work that is a corrective action includes the same level of review as established the original action
  - Provide for generation and retention of action/work completion documentation suitable for QA record purposes
- Management oversight is in place to monitor performance of the process

Graded Approach to Investigations

		Cause Uncertainty	
		Cause is Clear	**Cause is Ambiguous or Complex**
Risk	**High Consequence**	• Issue Investigation • Correct Condition and Cause	• Root Cause Analysis • Correct Condition and Cause
	Medium Consequence	• Document Known Cause • Correct Condition	• Issue Investigation • Correct Condition and Cause
	Low Consequence	• No Investigation • Correct Condition	• Investigation Optional • Correct Condition

General Guidance on Conducting Root Cause Investigations

- We expect the numbers of root cause investigations to be reduced – removing business items
- Format is largely unchanged – there are reasons why we did what we did in the past (Extent of Condition, Safety Analysis, Nuclear Safety Culture, etc.)
- Can use existing tools and techniques
- Root Causes will be required for White or greater

Investigation Templates

- Equipment Reliability Checklist –
  - Developed by ERWG, INPO
  - Base Template does not include ICES tags but user templates do
- Human Performance Checklist –
  - Developed by HU Working Group, INPO
  - Based on TWIN model and others

Investigation Templates

- Organizational Effectiveness Checklist
  - Developed by OR Working Group, INPO
  - Based on Management Systems model and INPO 15-005 Leadership and Teamwork Effectiveness
  - There is intentional overlap between HU and OR checklists
- Maintenance Rule Checklist
  - Special Case and developed by MRWG

Management Action

- N-CAP issues
- Allows for resolution within a tool but outside of CAP
- Business-type issues at manager level discretion

Appendix A – Defines some Examples

- Significant Condition Adverse to Quality
- Condition Adverse to Quality
- Condition Adverse to Regulatory Compliance
- Non-Corrective Action Program Conditions

Change Management

- Utilities should evaluate their current QA program definitions to determine if changes need to be made
  - CAQ, SCAQ
- Screening process changes – procedure changes, evaluate roles / responsibilities
- Software changes should NOT be required
- Communications to key audiences (General Workforce, CAP Screening, Supervisors and Managers)
- Discussions with Resident Inspectors

Other NRC Concerns

- Active discussion with regulators at HQ and regions
  - Concerns about protecting the SCWE and reporting culture
  - Concerns about supervisory engagement and action (for N-CAP issues)
  - Concerns about definitions (SCAQ)
  - Concerns about investigations for important issues

Questions

For More Information

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