Reactor Oversight Process (ROP) Bimonthly Public Meeting

NRC Nuclear Regulatory Commission

Hosted by the

Office of the Chief Nuclear Reactor Inspector (CNRI)

November 19, 2026

Purpose, Outcome, Plan (Agenda)



Purpose and Outcome: Provide clear, timely communication to stakeholders on key developments, issues, and ongoing activities related to the Reactor Oversight Process (ROP), ensuring transparency, fostering shared understanding, and supporting effective regulatory engagement.

Agenda Time	Topic	Presenter
09:00 AM – 09:10 AM	Opening Remarks	NRC and NEI
09:10AM – 09:30AM	Reactive Inspection Decision Making Guidance Review	Alex Garmoe, CNRI/DOCP/RAB
09:30 AM – 09:40 AM	Performance Indicator Working Group charter: Goal/Timeline/Vision	Dan Geary, CNRI/DOCP/RAB
09:40 AM – 10:10 AM	NEI white papers: update on Staff's review, including MTM Screening RICT and PRA Functionality Whitepaper	Alex Garmoe, CNRI/DOCP/RAB Michelle Kichline, CNRI/DOCP/PRAOB
10:10 AM – 10:30 AM	Discussion of LIV staff proposed definition revision	Ami Agrawal, CNRI/DOCP/RAB
10:30AM – 11:30AM	Open Discussion	NRC, NEI, Industry
11:30AM – 12:00PM	Additional Opportunity for Public Comments	Members of the Public
12:00 PM	Meeting Adjourned	

Opening Remarks

NRC and NEI

NRC Nuclear Regulatory Commission

Reactive Inspection Decision Making Guidance Review

Alex Garmoe, Senior Reactor Analyst
Reactor Assessment Branch
Division of Oversight and Compliance Programs
Office of the Chief Nuclear Reactor Inspector

Working Group Objectives

- Consider feedback received internally and externally
- Consider other ongoing ROP and NMSS program revision efforts,
- Identify any content that is better suited in other guidance docs
- Clearly define the governance document structure
- Develop specific revisions to implementing guidance
  - specific timeliness expectations
  - clear decision authority
  - flexibility in the reactive inspection decision-making process
  - maintaining the appropriate focus on the needed safety and security outcomes
  - reviewing the deterministic criteria and their role in the process.

Working Group Timeline

✓	Establish working group members, begin effort	September 2026
✓	Complete review of existing guidance and existing process feedback	October 2026
→	Develop principles and overall structure of revised process	November 2026
	Draft revisions to reactive inspection decision-making guidance	December 2026
	Internal comment period on draft documents	January 2027
	Resolution of internal comments. Brief mgmt. post-comment-resolution.	February 2027
	Submit documents for reviews and final concurrence process	March 2027 onward

Early Feedback Themes

- Revisions needed to reflect re-organization
- Desire for improved process timeliness and efficiency
  - More clearly defined timeliness goals
  - Reduce administrative barriers to launching and completing inspection
- Review decision-making criteria
  - Examples: new RP framework, risk-informed thinking
- Consider of guidance structure is most efficient

Reactive Inspection Decision Making Guidance Review

Questions and Discussion

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Updates on Implementation of Revised More-than-Minor Screening

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ROP Public Meeting

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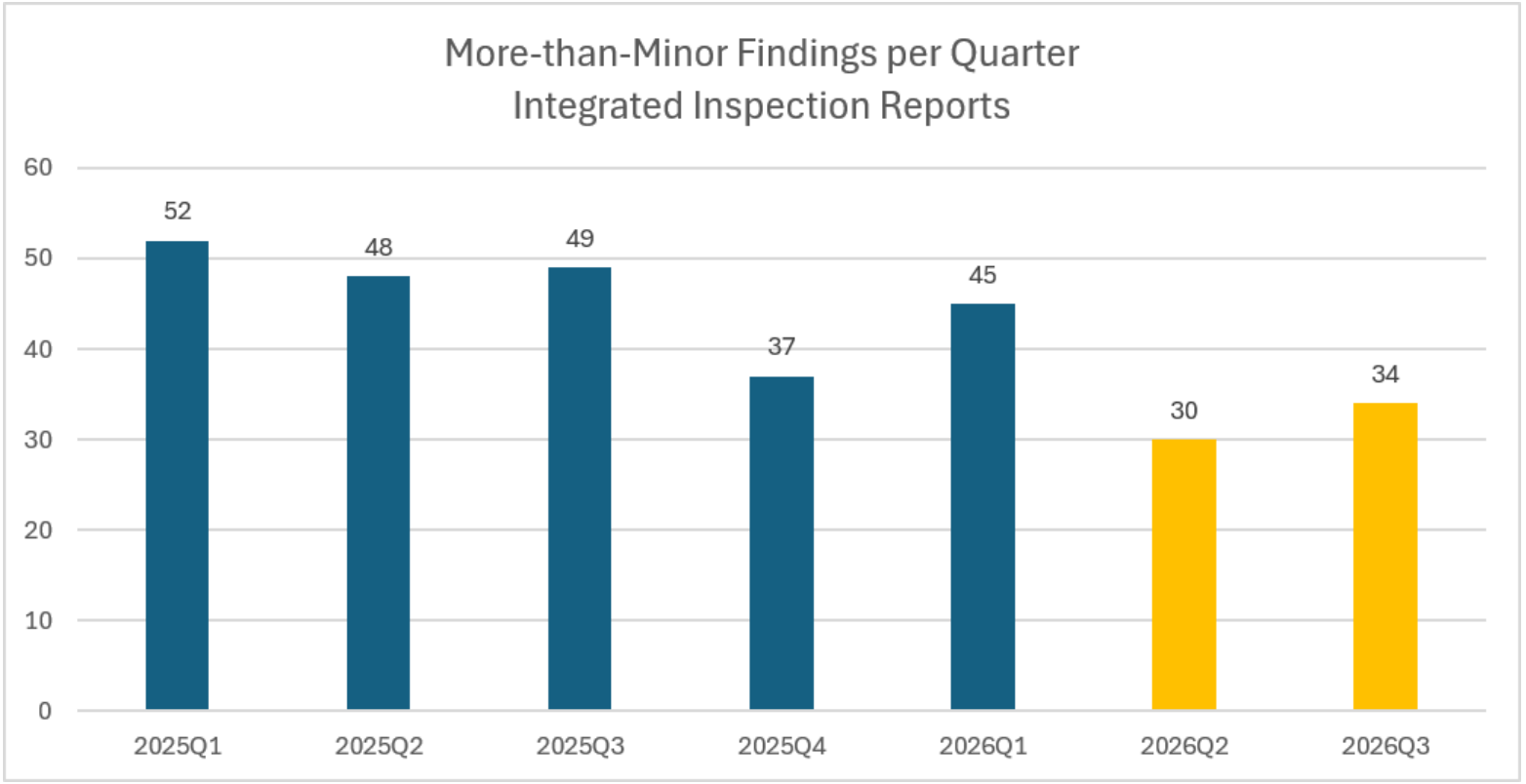
Alex Garmoe
Senior Reactor Analyst
CNRI/DOCP/RAB

Current Status

- More than two quarters of post-implementation data so far
  - Full set of 2Q and 3Q 2026 integrated inspection reports
    - Most consistent data set, still impacted by various changes
  - Nearly 6 months of non-integrated inspection reports
    - Tougher to meaningfully trend given changes in inspection schedules
- Comprehensive effectiveness reviews planned for CY2027 will benefit from several more quarters of data

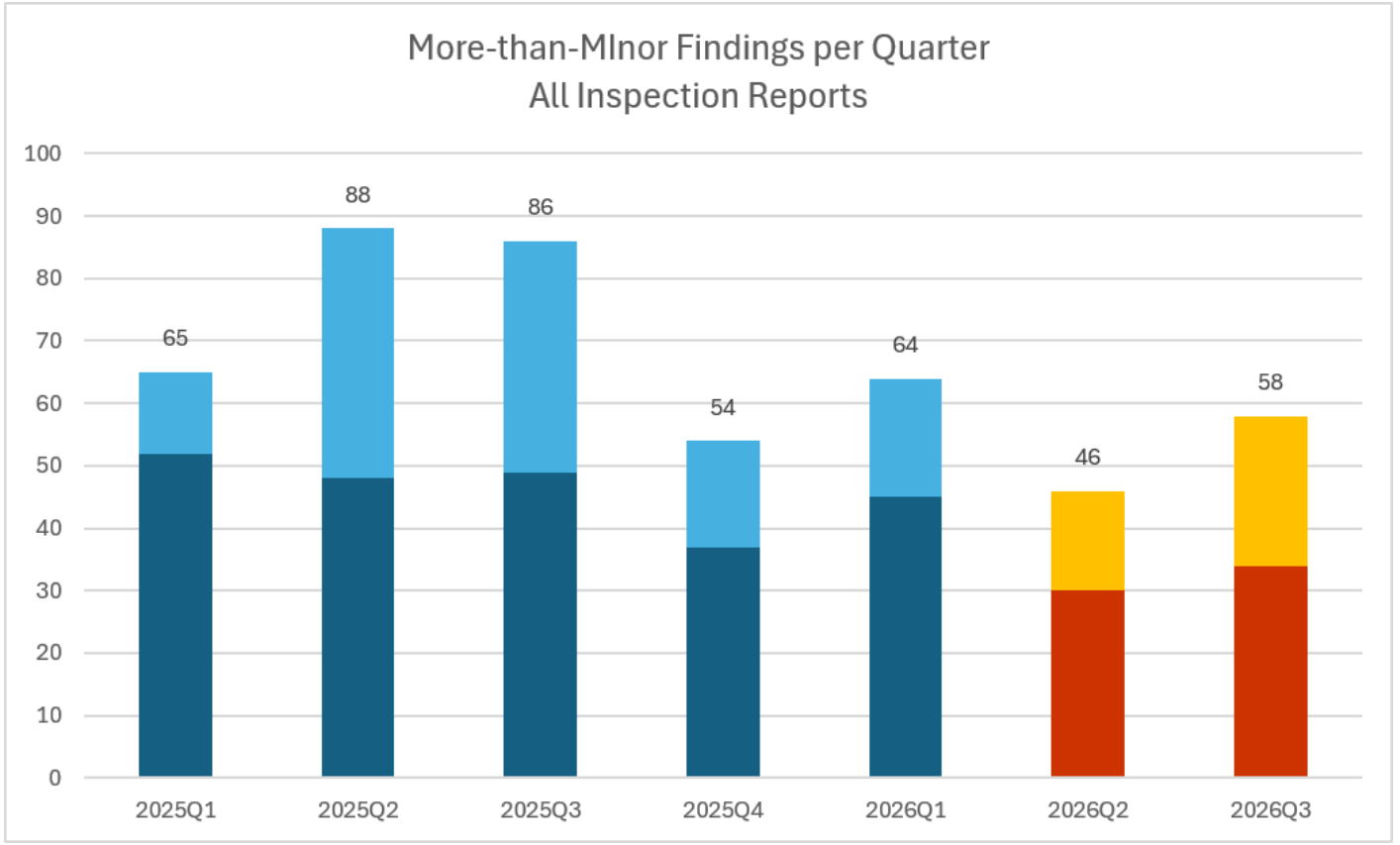
Integrated Inspection Reports Data

- Roughly 30% reduction in findings from prior 5 quarters average to recent 2 quarters average



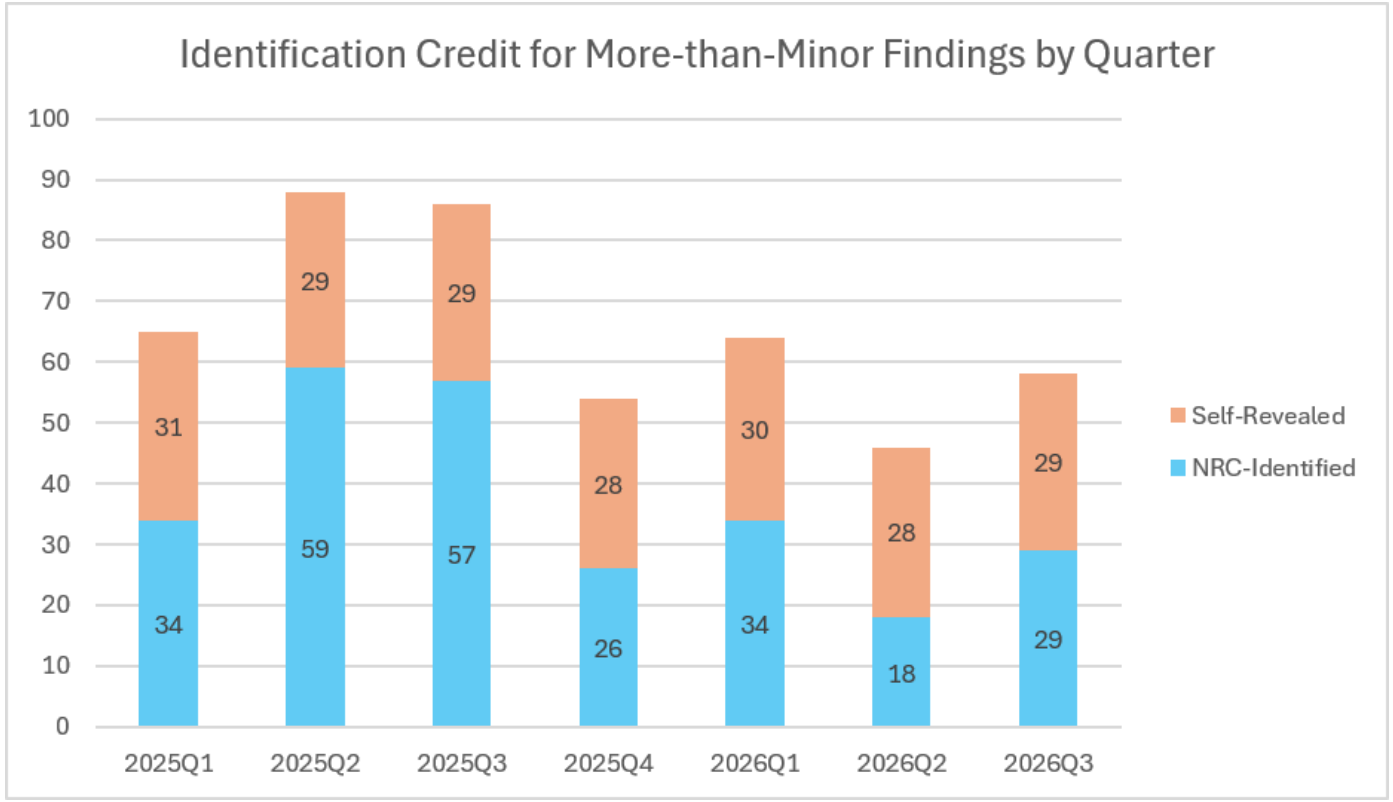
All Inspection Reports Data

- Roughly 27% reduction in findings from prior 5 quarters average to recent 2 quarters average



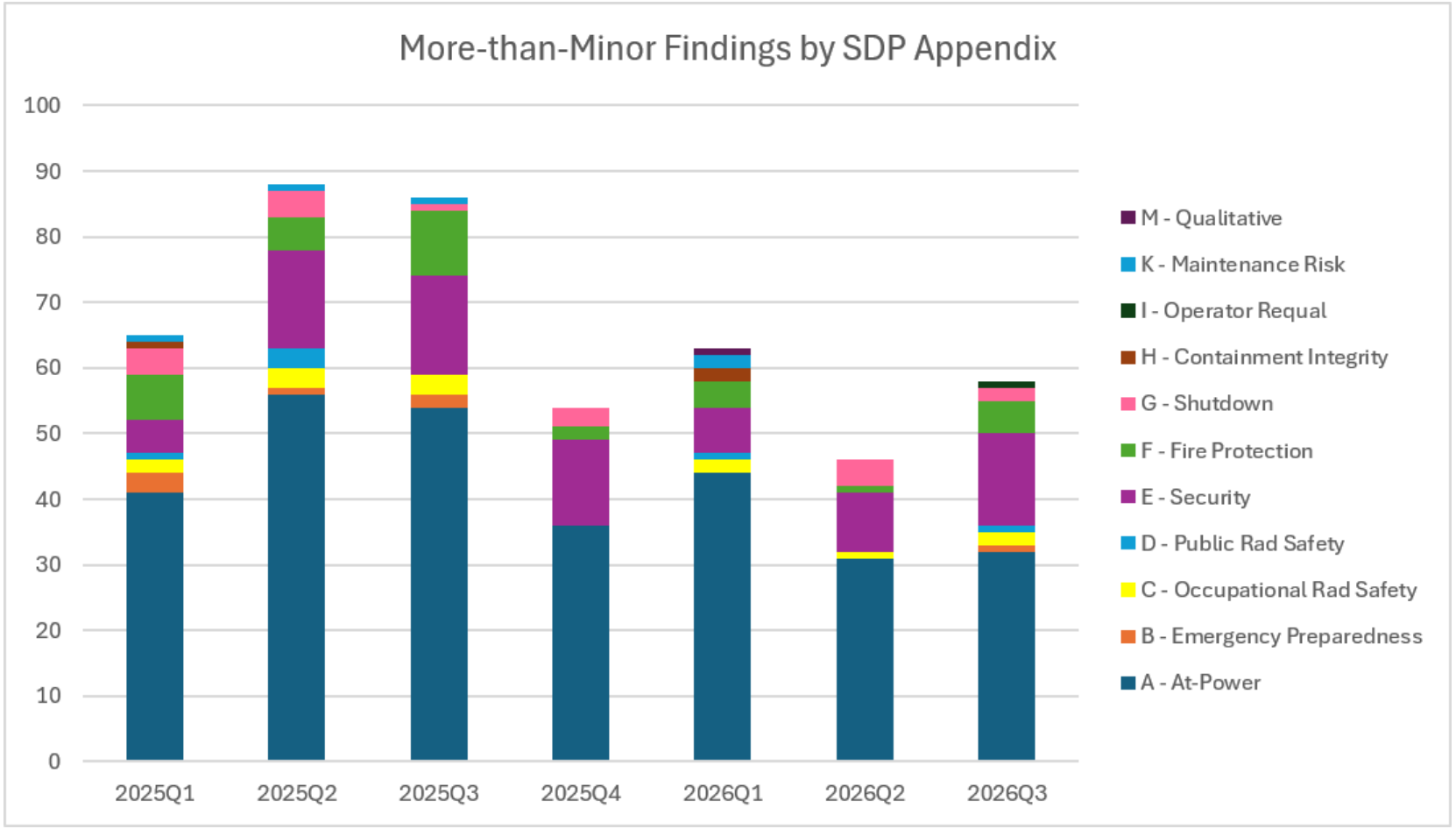
All Inspection Reports Data

- Expected that more-than-Minor changes would impact NRC-identified more than self-revealed, data is confirming this



All Inspection Reports Data

- Appendix A continues to be used for majority of findings



Moving Forward

- Early data not intended to foreshadow comprehensive effectiveness activities planned for CY2027
- Observed data from 2Q and 3Q 2026 in line with anticipated outcomes so far
  - Change in number of documented findings due to risk-informed inspection program changes and revised MTM findings threshold
  - NRC-Identified and Self-Revealed trends are understood
  - SDP appendix use is within historical norms
- Engaging inspectors and reviewing implementation to check and adjust where needed

Performance Indicator Working Group charter: Goal/Timeline/Vision

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Dan Geary, Reactor Operations Engineer
Reactor Assessment Branch
Division of Oversight and Compliance Programs
Office of the Chief Nuclear Reactor Inspector

PURPOSE AND GOALS

- Modernize the Performance Indicator (PI) program to be more risk-informed and efficient. This includes review and update of program framework and indicators.

- Communicate the revised PI program to the Commission via a SECY paper.

BACKGROUND

- Section 507 of the Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy (ADVANCE) Act and Executive Order 14300 “Ordering the Reform of the Nuclear Regulatory Commission” drove revisions to the Reactor Oversight Process (ROP).

- Baseline inspection program has been revised as discussed in SECY-26-0014 and SECY-26-0015. PI Program has not been changed and requires updates to realign with the intent of ADVANCE Act and EO 14300.

- Working Group Charter is in concurrence. DRAFT version of charter made available prior to this meeting (ML26314A052)

WORKING GROUP COMPOSITION

- Working group is made up of NRC staff with diverse experience and technical disciplines
  - Senior Resident Inspectors
  - Senior Reactor Analysts
  - Security
  - Radiation Protection
  - Emergency Preparedness
  - Safety Culture
  - Operating Experience
- Core team that meets frequently to discuss ideas and concepts

KEY TASKS

- Review program documents
- Review industry provided white papers
- Engage industry and public through workshops
- Draft an INFOSECY documenting the team's efforts, conclusions, and recommendations

Milestones

Milestone	Date
Initial public meeting/workshop on program framework	December 2026
Brief NRC management on program framework recommendations	December 2026 / January 2027
Develop/Validate PIs	January 2027 – April 2027
Public meetings / workshops on PIs	February 2027 – April 2027
Brief NRC management on final PI recommendations	May 2027
Initial Draft INFOSECY	June 2027
INFOSECY to OEDO	July 2027
INFOSECY to Commission	August 2027
Implement revised program industry-wide	January 1, 2028

Consideration of NEI Whitepaper Regarding Use of Risk-Informed Completion Time (RICT) Allowed Outage Times (AOTs) in the Significance Determination Process (SDP)

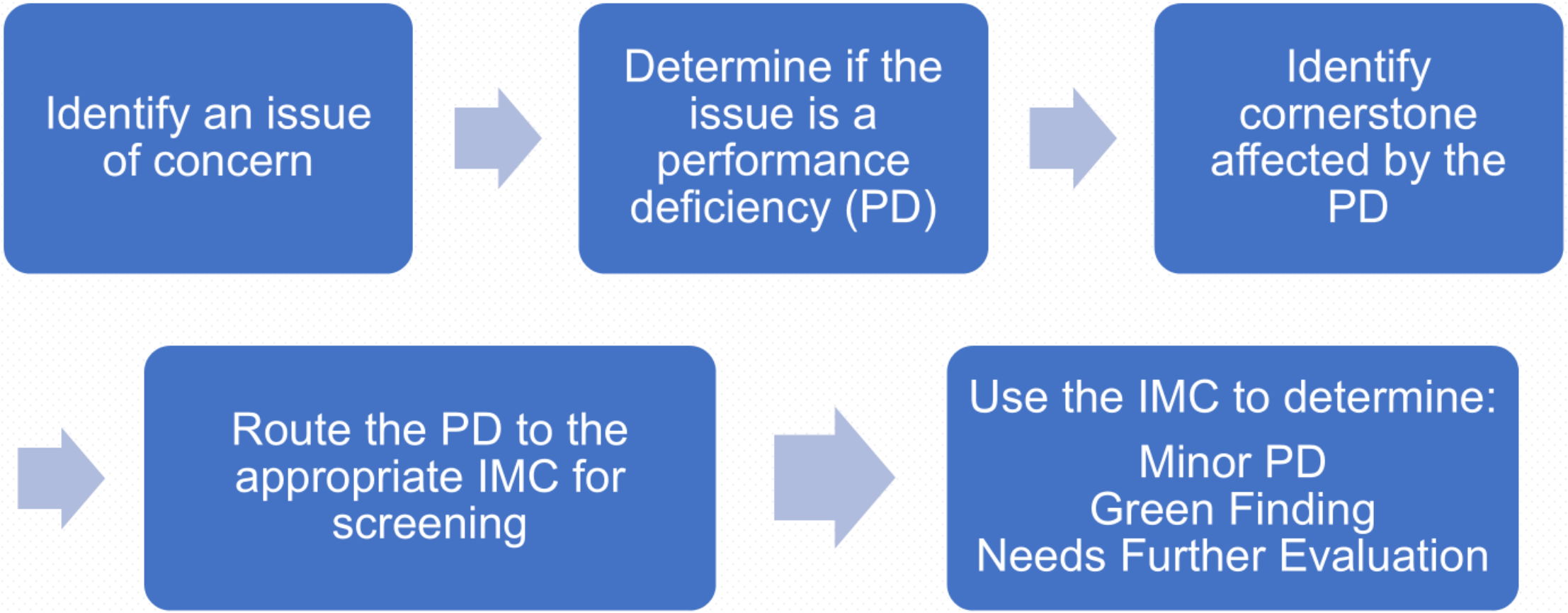
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Alex Garmoe
Senior Reactor Analyst
CNRI/DOCP/RAB
Michelle Kichline
Senior Reliability and Risk Analyst
CNRI/DOCP/RAB

Agenda

- Background
- SDP Screening Process Overview
- Example Using the Screening Process
- NEI Whitepaper Recommendations
- Evaluation of Recommendations

SDP Screening Process Overview



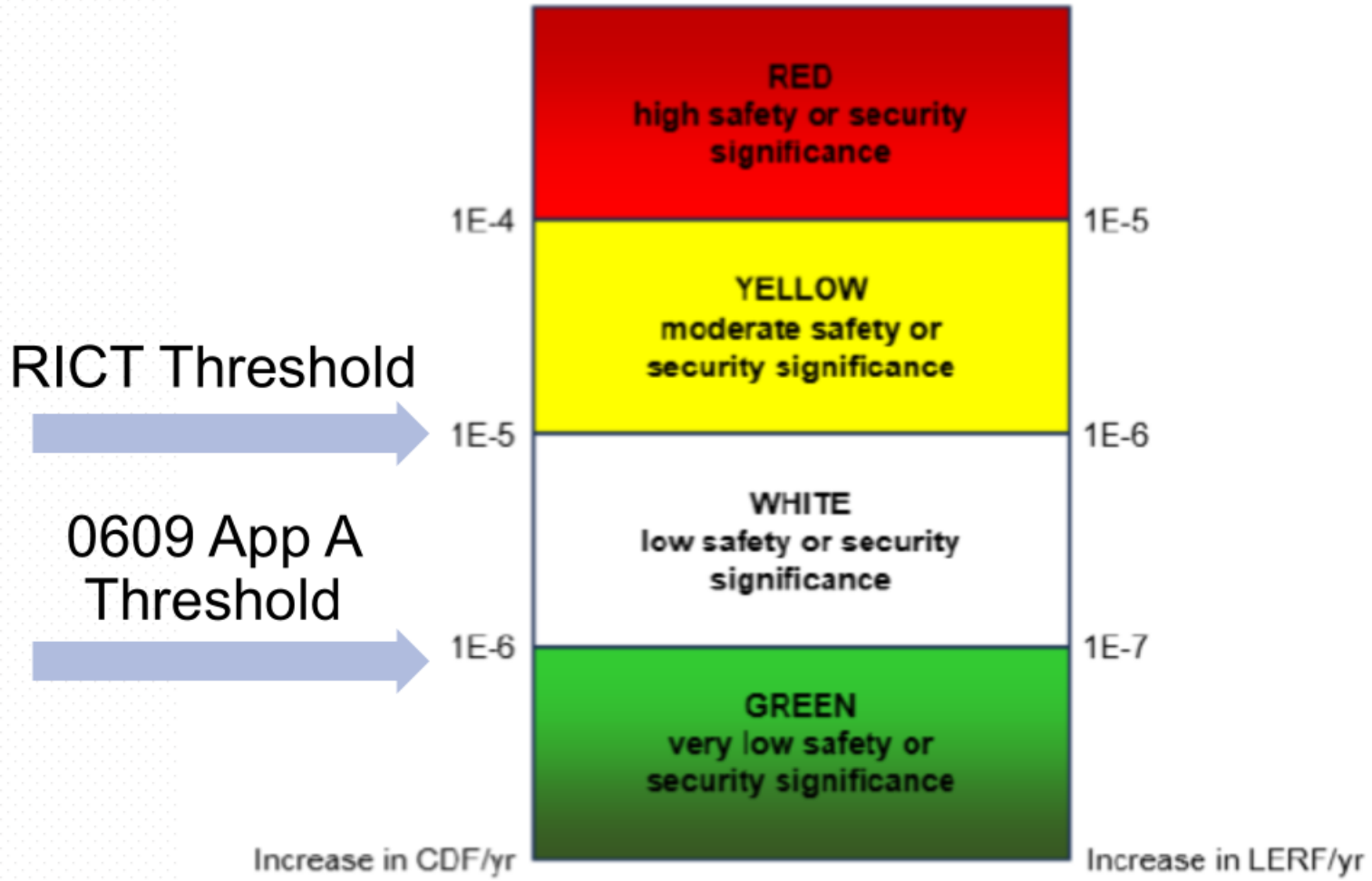
SDP Screening Process

- PDs that occur at-power and affect the Initiating Events, Mitigating Systems, or Barrier Integrity cornerstones are screened using 0609 Appendix A.
- The purpose of the screening questions is to efficiently determine if a PD can be characterized as Minor or a Green finding.
- The screening questions in Appendix A cannot be used to directly determine a significance greater than Green.
- The time frames used in the screening questions are based on experience.
  - They were developed to estimate the duration of a PD that can be assumed to be Green or if further evaluation is needed to determine the significance.

SDP Significance Thresholds

Graphical Representation of the Quantitative Significance of Inspection Findings

NOTE: Not applicable to all safety cornerstones and IMC 0609 appendices



SDP Example - PD

- Issue of Concern:
  - An emergency diesel generator (EDG) failed to start during monthly surveillance testing.
  - The EDG failed to start due to corrosion of a relay that is part of the starting circuitry.
  - The relay was supposed to be inspected for corrosion during the last maintenance window, which was 30 days ago. The relay was not inspected.
- Performance Deficiency:
  - The licensee failed to inspect the relay as outlined in plant procedures.

SDP Example - Screening

- The EDG is a mitigating system. IMC 0609 Att 4 routes screening of PDs under the mitigating systems cornerstone to IMC 0609 Appendix A.
- Mitigating Systems PDs are evaluating using the screening questions in Exhibit 2.
- Exposure time is needed to answer the questions.
  - Exposure time = time SSC was nonfunctional + repair time
  - For this example, exposure time = 33 days (30 days since last successful operation + 3 days repair time)
- For TS SSCs, the frontstop TS AOT is also needed.
  - For this example, TS AOT = 7 days or in accordance with RICT

Applicable Screening Question

3. Does the performance deficiency represent a loss of the PRA function of at least one train of a multi-train TS system (including swing trains) for greater than its TS allowed outage time (frontstop for plants with RICT)?

   ☐ a. If YES, Stop. Go to Detailed Risk Evaluation section

   ☐ b. If NO, continue

- For this example, the exposure time (33 days) is greater than the frontstop TS AOT (7 days).
- Therefore, a detailed risk evaluation is needed to determine the significance.
- Performing a detailed risk evaluation does NOT mean that the result is automatically greater than Green.

SDP Example Outcome

- The example plant had an approved RICT license amendment for the EDG TS but no RICT was calculated because the EDG was not in maintenance before the failure occurred and the repair time was short.
  - If a RICT had been calculated, it would have allowed the EDG to be out of service for maintenance for 70 days. The RICT program limits applying a RICT for longer than 30 days.
- If the screening question used the RICT AOT (70 days) instead of the frontstop AOT (7 days), the SDP would have screened to Green. (33 days < 70 days).
  - The calculated risk for 33 days would be in the WHITE significance range.

SDP Example Outcome

- The example plant had an approved RICT license amendment for the EDG TS but no RICT was calculated because the EDG was not in maintenance before the failure occurred and the repair time was short.
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  - The calculated risk for 33 days would be in the WHITE significance range.

NEI Recommendation 1

"If the performance deficiency affects a mitigating SSC, did the SSC maintain its operability and PRA functionality without reliance on:

- *modification or repair,*
- *compensatory measures,*
- *procedure revisions, or*
- *re-analysis to regain margin if all available margin was lost?*

- ☐ *a. If YES, screen as Minor performance deficiency.*
- ☐ *b. If NO and PRA functionality was maintained or the affected SSC function is non-risk significant under the Maintenance Rule (MR), screen as Green finding.*
- ☐ *c. If NO and PRA functionality was not maintained for a MR risk significant SSC function, continue."*

The red text was added

Evaluation of Recommendation 1

- The maintenance rule regulation does not define the increase in risk allowed for a component designated as risk significant.
- Typically, a risk achievement worth of 2 is used, which allows baseline risk to double due to failure of the component before the component is designated risk significant.
- If the recommendation were implemented, a finding associated with a non-risk significant component could be screened to Green even though the increase in CDF/LERF could be much greater than the threshold for a Green finding.
  - Baseline CDF is often in the E-5 range for a year, which equates to a YELLOW significance if baseline risk were allowed to double.

NEI Recommendation 2

"Does the performance deficiency represent a loss of the PRA function of at least one train of a multi-train TS system (including swing trains) for greater than its TS allowed completion time (AOT or RICT utilizing properly implemented RMAs)?"

The red text replaced
"allowed outage time (frontstop AOT for plants with RICT)"

Evaluation of Recommendation 2

- The maximum change in risk allowed by the RICT program is an order of magnitude higher (10 times more) than the maximum for which the screening questions in IMC 0609 Appendix A are intended to be used.
- This change would only be applicable if the PD were directly related to performance of a maintenance activity for which a RICT was calculated.
- If the recommendation were implemented, a finding associated with an SSC subject to a RICT could be screened to Green even though the increase in CDF/LERF could be in the White range.

Questions?



Acronyms

- AOT – Allowed Outage Time
- CDF – Core Damage frequency
- IMC – Inspection Manual Chapter
- LERF – Large Early Release Frequency
- NEI – Nuclear Energy Institute
- PD – Performance Deficiency
- PRA – Probabilistic Risk Assessment
- RICT – Risk-Informed Completion Times
- RMA – Risk Management Action
- ROP – Reactor Oversight Process
- SDP – Significance Determination Process
- SSC – System, Structure, or Component
- TS – Technical Specifications

Discussion of LIV staff proposed definition revision

Ami Agrawal, Chief
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Office of the Chief Nuclear Reactor Inspector

Licensee-Identified

Licensee-identified findings and violations are:

- (1) identified due to deliberate observation or good questioning attitude by licensee personnel; and
- (2) entered into the licensee corrective action program.

Licensee-Identified

Examples of deliberate observations and good questioning attitude that result in licensee-identified findings or violations include:

- (1) those identified during activities such as post maintenance testing, operator rounds, engineering walkdowns, drills, critiques, or self-assessments or audits;
- (2) degraded conditions identified during testing which do not result in test failure or are not within the scope of the test being conducted, and
- (3) licensee actions as part of adverse condition monitoring plans or other comparable approaches for known degrading conditions that were initially licensee-identified. Conditions covered by item (3) remain within the scope of licensee-identified provided adverse condition monitoring is implemented in a manner that does not create new or worse conditions than would have otherwise occurred. While conditions discovered via unexpected alarms are often self-revealed, the use of alarm setpoints as part of adverse condition monitoring is within the scope of licensee-identified

Questions

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