U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

Briefing on Results of the Agency Action Review Meeting

- Commission Meeting
- June 19, 2018

Agency Action Review Meeting Objectives

- Review licensees with performance issues
- Review Nuclear Materials and Waste Safety Program Performance
- Review effectiveness of the Reactor Oversight Process and the Construction Reactor Oversight Process

Agenda

- Reactor Licensee Discussions
- Nuclear Materials and Waste Safety Program Performance
- Reactor Oversight Process Program Performance
- Construction Inspection and Operational Program Performance

Review of Performance at Pilgrim

David Lew
Acting Regional Administrator, RI

Key Messages

- Pilgrim continued to operate safely and securely in 2017
- Improvement noted but sustainability remains to be assessed
- Pilgrim remains in Column 4 and will continue to receive enhanced oversight

Pilgrim Entered Column 4 in 2015

- Degraded Cornerstone for more than five quarters for tripping both scram performance indicators and a failed 95002
- White finding in September 2015 for not identifying and correcting a safety relief valve (SRV) failure

NRC Heightened Oversight Activities

- NRC completed review of Pilgrim's Recovery Plan
- Region I issued Confirmatory Action Letter (CAL) on August 2, 2017
- CAL inspections in progress
  - Five quarterly team inspections scheduled
  - More scheduled, if warranted

NRC Noted Progress in Pilgrim's Recovery

- Conservative decision making
- Improved operator performance
- Increased margins to performance indicators thresholds

NRC's CAL Inspections Are Underway

- Procedure quality
- Safety Relief Valve (SRV) White finding
- Human performance
  - Operability Determinations and Functionality Assessments
  - Procedure Use and Adherence
- Corrective Action Program

Substantial NRC Reviews of CAL Action Items Remain

- Operations standards and site leadership (includes risk-recognition and decision-making)
- Engineering programs and equipment performance (includes work management)
- Nuclear safety culture

NRC Oversight Accounts for Planned Pilgrim Shutdown

- NRC's oversight strategy considers potential issues stemming from announced permanent shutdowns
- Enhanced quarterly assessments include both Column 4 and permanent shutdown strategies
- Insights on Pilgrim's performance
- NRC will continue to monitor performance and adjust oversight as shutdown nears

Next Steps

- Implement and leverage Baseline Inspection Program flexibilities
- Continue to perform quarterly CAL follow-up team Inspections
- Supplement Resident staff on an as needed bases
- Maintain increased NRC management oversight and site visits

Review of Performance at Arkansas Nuclear One

Scott A. Morris
Deputy Regional Administrator, RIV

Key Messages

- ANO continued to operate safely and securely in 2017
- Performance at ANO has improved
- Confirmatory Action Letter closed
- ANO returned to column 1 oversight
- ANO implementing longer-term actions to sustain improvements

ANO Entered Column 4 in 2015

- Yellow finding: Stator drop event (1Q14)
- Yellow finding: Flood protection deficiencies (3Q14)
- White performance indicator (Unit 2): Unplanned scrams

NRC Heightened Oversight Activities

- Quarterly Confirmatory Action Letter follow-up inspections
- Dedicated branch for ANO oversight
- Numerous management site visits
- Several senior leadership meetings

NRC's CAL Inspections Focused on Six Principal Areas

- Yellow findings
- Corrective Action Program
- Human performance
- Equipment and engineering programs
- Safety culture
- Service water system

NRC Inspections Verified Improved Performance

- Comprehensive response to Yellow findings
- Better equipment reliability and safety margins
- Enhanced site staffing and training
- Improved Corrective Action Program

Inspections Verified Improved Performance (cont.)

- Improved nuclear safety culture
- Reinforced nuclear fundamentals
- Improved procedure adherence and quality
- Established "operations-led" philosophy

ANO Working to Sustain Performance Improvements

- Focusing on work management
- Upgrading procedures and work instructions
- Upgrading plant equipment (e.g., service water system)
- Developing plant staff

Conclusions

- All CAL actions verified complete and objectives met
- Performance at ANO has improved and appears sustainable
- ANO returned to Column 1 oversight

Nuclear Materials and Waste Safety Program Performance

Scott Moore, Deputy Director
Office of Nuclear Material Safety and Safeguards

Mature Performance Evaluation Process

- Systematic review to identify significant:
  - Operational performance trends
  - Licensee performance issues
  - NRC program issues/gaps

Well-defined Performance Criteria

- Trending review of NMED, and Fuel Cycle Operating Experience data
- Abnormal Occurrences (AOs)
- Significant enforcement actions
- Strategic goals and performance measures

No Significant Performance Trends Identified

- 410 NMED events
- 5 Fuel Cycle events
- 11 AOs
- 1 Special Event Study on Y-90
- Event numbers small compared to the millions of uses

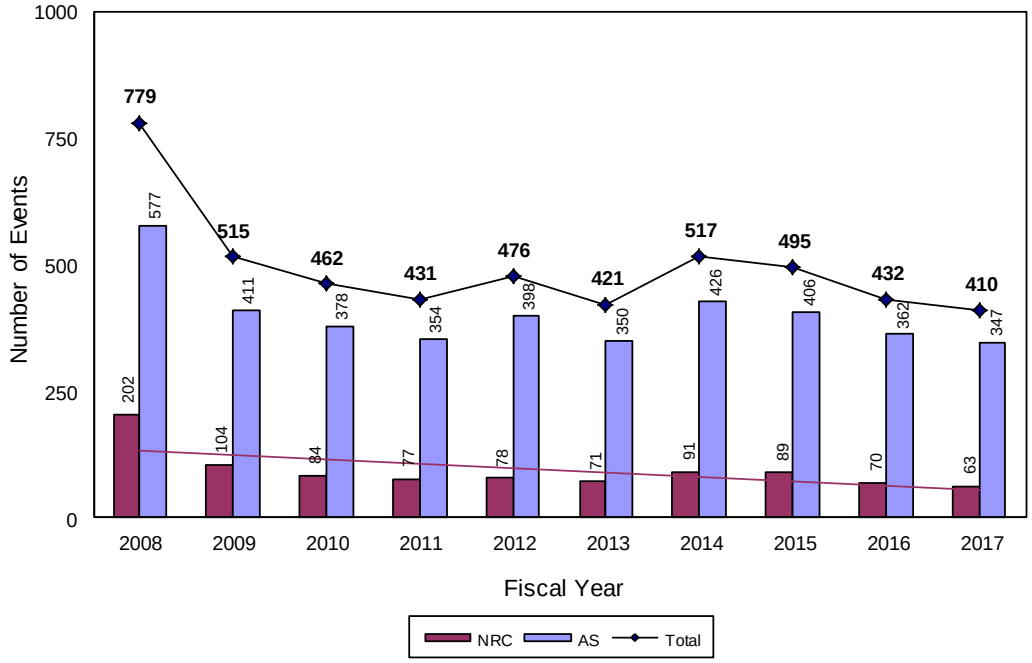


Figure 1. All NMED Events (4,938 total) from SECY 18-0048, "Annual Report to the Commission on Licensee Performance in the Nuclear Materials and Waste Safety Program Fiscal Year 2017"

Met Strategic Goals

- No nuclear materials licensees met the AARM discussion criteria
- Materials program met safety and security performance metrics
- No significant trending issues identified
- No significant NRC program issues identified

Reactor Oversight Process Self-Assessment

Mike King, Deputy Director
Division of Inspection and
Regional Support
Office of Nuclear Reactor Regulation

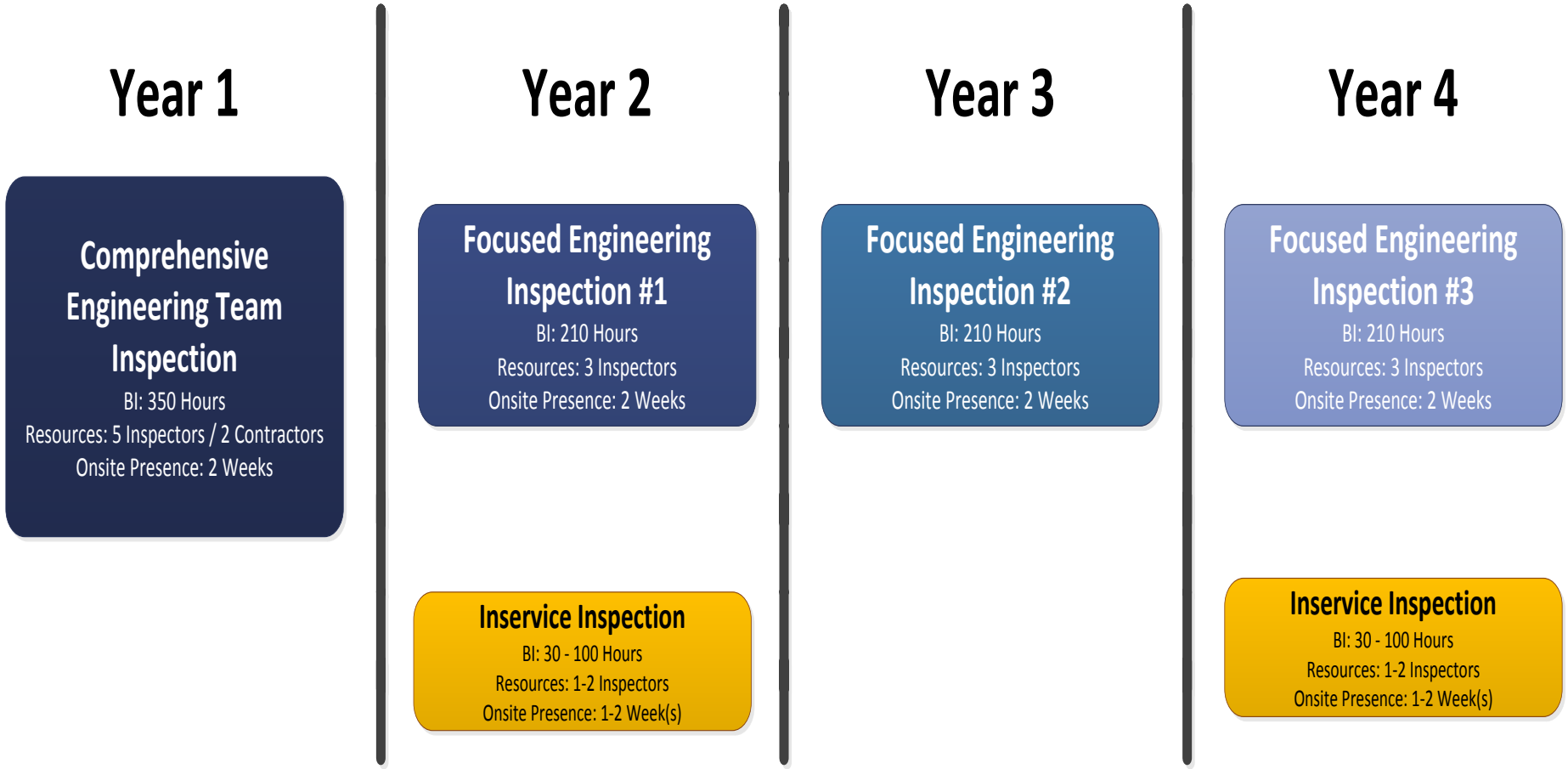
CY 2017 ROP Self-Assessment Supported the NRC's Strategic Goals

	Self-Assessment Elements	2016	2017	2018	2019
Element 1	Metrics	Yes	Yes	Yes	Yes
	Program Evaluations	Yes	Yes	Yes	Yes
Element 2	Monitor ROP Revisions	Yes	Yes	Yes	Yes
	Effectiveness Reviews	Yes	Yes	Yes	Yes
Element 3	Regional Peer Reviews	Yes		Yes	
	Focused Assessments	Yes	Yes		Yes
	Baseline IP Assessments	Yes		Yes	

CY 2017 ROP Self-Assessment Confirmed That the ROP was Effective

- ROP provided effective oversight and supported the NRC's mission and strategic goals
- There are 26 ROP performance metrics:
  - 22 metrics were Green in CY 2017
  - Three were red and one was yellow, highlighting areas for focus
- CY 2017 focused assessment:
  - Engineering inspections

Quadrennial Cycle with Flexible Engineering Focused Inspections



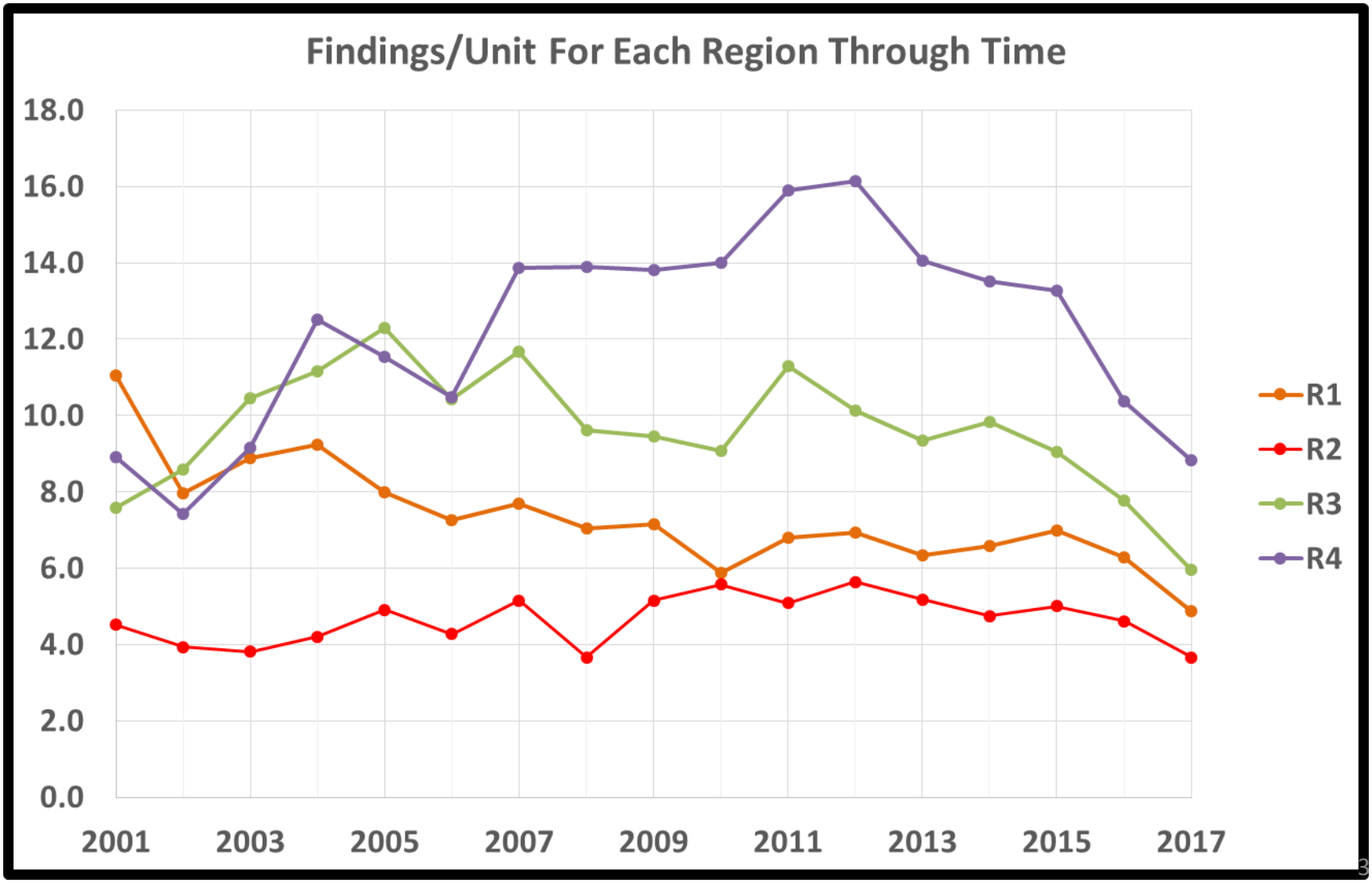
Implementing Enhancements To the Engineering Inspection Program

- Finalize working group recommendations (completed)
- Commission paper (SECY)(summer 2018)
- Develop new inspection procedures (July - August 2018)
- Ensure reliability of inspection guidance (fall/winter 2018)
- Implement approved ROP changes (CY 2020)

Plans for CY 2018 ROP Self-Assessment

	Self-Assessment Elements	2016	2017	2018	2019
Element 1	Metrics	Yes	Yes	Yes	Yes
	Program Evaluations	Yes	Yes	Yes	Yes
Element 2	Monitor ROP Revisions	Yes	Yes	Yes	Yes
	Effectiveness Reviews	Yes	Yes	Yes	Yes
Element 3	Regional Peer Reviews	Yes		Yes	
	Focused Assessments	Yes	Yes		Yes
	Baseline IP Assessments	Yes		Yes	

Assessing Trends in Regional Inspection Findings



Improving the Inspection Process for Licensee Event Report Reviews

- Recently identified issue during an IP 95003 lessons learned review associated with dispositioning LERs
- Separate feedback from external stakeholder on timeliness of LER closeout
- Confirmed no impact on plant assessment and conducted extent of condition reviews
- Assessing process enhancements to better manage LER review and closeout

ROP Program Goals Fully Met in 2017

- Program Goals
  - ✓Objective
  - ✓Risk-informed
  - ✓Understandable
  - ✓Predictable

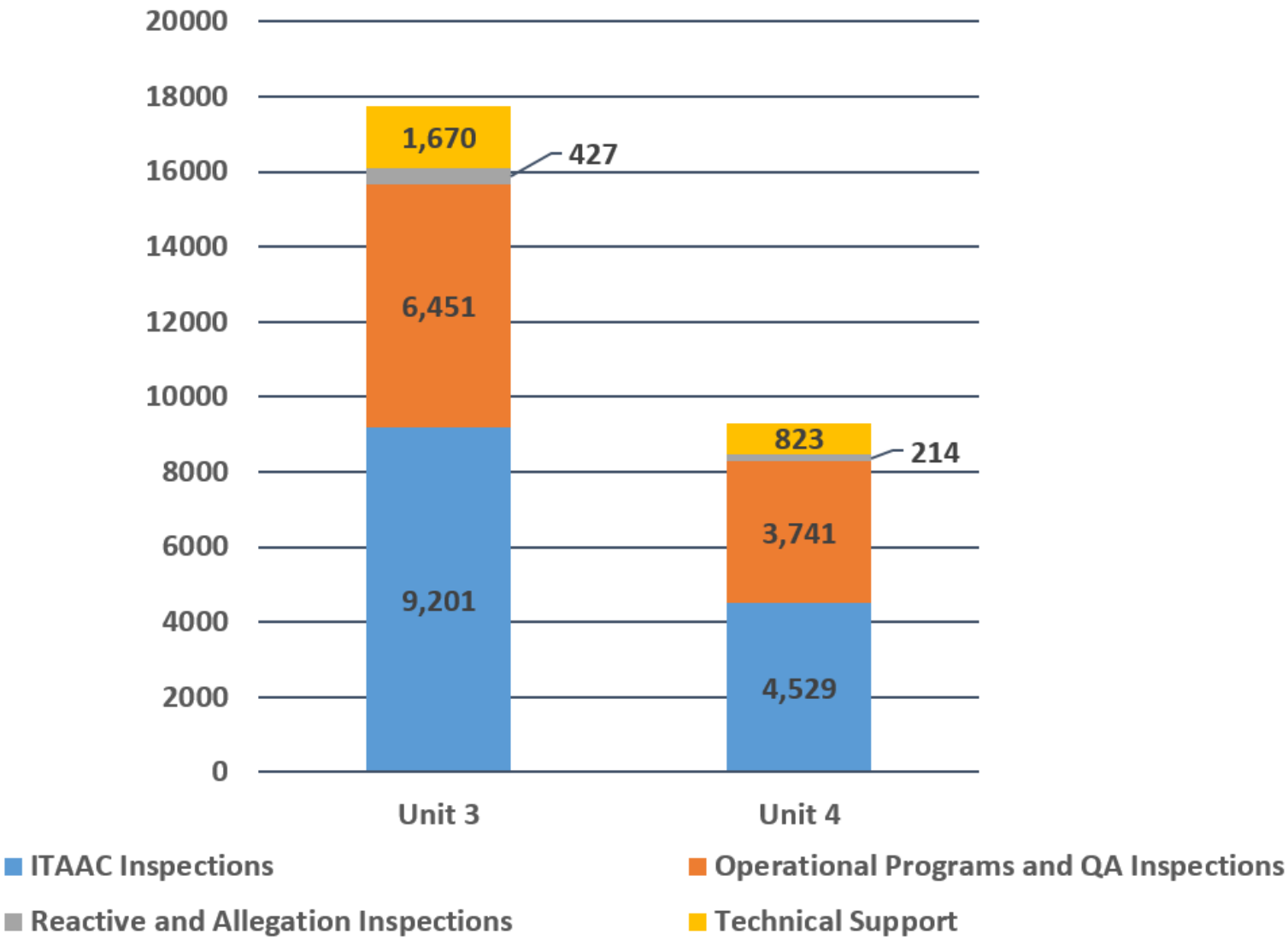
Construction Reactor Oversight Process (cROP) Self-Assessment

Paul Krohn, Deputy Director
Division of Construction Inspection and Operational Programs (DCIP),
Office of New Reactors (NRO)

cROP Remains Effective

- The cROP continues to provide effective oversight and achieved its intended outcomes
- Both construction units remain in the Licensee Response column
- Reduced staffing due to V.C. Summer's construction termination

Cumulative Inspection Hours Vogtle



Preparing for ITAAC Surge

- Completed activities to identify or resolve potential challenges for Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) closure and verification
  - Demonstration project of the ITAAC inspection program and closure verification process
  - Tabletop exercise for complex ITAAC
  - Implemented metrics to measure performance

Focusing on Operational Readiness

- Issued public version of the plan to support transition from cROP to ROP
- Formation of the Vogtle Readiness Group (VRG)
- Developing guidance to communicate 10 CFR 52.103(g) finding to Commission

Conclusion

- Senior NRC managers affirmed the appropriateness of agency actions

List of Acronyms

- AARM – Agency Action Review Meeting
- ANO – Arkansas Nuclear One
- AO – Abnormal Occurrence
- CAL – Confirmatory Action Letter
- IP – Inspection Procedure
- ITAAC – Inspections, Tests, Analyses, and Acceptance Criteria
- NMED – Nuclear Materials Event Database

List of Acronyms (cont.)

- NMSS – Office of Nuclear Material Safety and Safeguards
- NRC – U.S. Nuclear Regulatory Commission
- NRR – Office of Nuclear Reactor Regulation
- QA – Quality Assurance
- ROP – Reactor Oversight Process
- SRV – Safety Relief Valve
- VRG – Vogtle Readiness Group