



Briefing on Results of the Agency Action Review Meeting

June 15, 2017

Victor M. McCree

Executive Director for Operations

Agency Action Review Meeting Objectives

- Review licensees with performance issues
- Review nuclear materials and waste program performance
- Review effectiveness of the Reactor Oversight Process and the Construction Reactor Oversight Process

Agenda

- Reactor Licensee Discussions
 - Pilgrim – Daniel Dorman, Region I
 - Arkansas Nuclear One – Kriss Kennedy, Region IV
- Material Licensee Discussion
 - Westinghouse – Catherine Haney, Region II
- Materials and Waste Performance Trends – Scott Moore, NMSS
- Reactor Oversight Process Program Performance – Chris Miller, NRR

Review of Performance at Pilgrim Nuclear Power Station

Daniel H. Dorman
Regional Administrator, RI

Key Messages

- Pilgrim continues to operate safely
- Pilgrim remains in Column 4 (Multiple/Repetitive Degraded Cornerstone) of the ROP Action Matrix
- Entergy is revising their Recovery Plan to reflect IP 95003 results and recent events
- Region I will continue to maintain enhanced oversight

Pilgrim Entered Column 4 in 2015

- Degraded Cornerstone for more than five quarters due to weak corrective actions for two White performance indicators
- White finding for not identifying and correcting a safety relief valve (SRV) failure

NRC Completed Independent Diagnostic Inspection

- Inspection completed first quarter 2017
- Recovery plan generally addresses the correct problem areas and causes
- Entergy identified weaknesses in:
 - corrective action program
 - risk recognition and decision making
 - safety culture
- Corrective actions require additional focus

NRC Identified Gaps in Implementation of Safety Standards

- Entergy identified leadership weaknesses as a key causal factor for overall decline
- Licensed operators demonstrated ability to safely operate the plant, however, standards for assessing and correcting degraded conditions need improvement
- Corrective actions for the SRV failures in 2013 and 2015 did not identify or address one key casual factor

NRC Found That Safety Culture Weaknesses Persist

- Results from safety culture focus groups did not fully align with results of some field observations
- Recovery actions will need further adjustment to improve performance and fully address identified gaps

NRC Identified Eleven Findings

- Four operations/engineering findings – one potentially greater-than-Green
- Seven corrective action program related findings

Focus Areas for Licensee

- Corrective actions to preclude repetition need enhancement to drive sustained improvement
- Operations department standards for assessing and correcting degraded conditions need to be strengthened
- Additional action is warranted to ensure safety culture improvements are sustained

Recent Events Indicate Continued Gaps

- Recent events indicate continued gaps in safety culture and procedure use and adherence
- Technicians working on incorrect equipment rendered a safety-related pump inoperable
- Licensed operators inadvertently drained a large volume of water into the torus

Column 4 Oversight Actions are Appropriate

- There have not been multiple escalated violations
- Inspection results indicate adequate performance in operating and maintaining the facility within its design basis
- There has not been a pattern of failure to effectively address previous safety significant findings or performance indicators

Next Steps

- Entergy revise Recovery Plan
- NRC review revised plan and actions
- NRC issue Confirmatory Action Letter (CAL) (Summer 2017)
- CAL follow-up inspections begin (Fall 2017)
- Enhanced oversight activities will continue until all actions completed and verified

Review of Performance at Arkansas Nuclear One

Kriss M. Kennedy
Regional Administrator, RIV

Key Messages

- ANO continues to operate safely
- ANO implementing Comprehensive Recovery Plan to improve performance
- NRC will continue increased level of oversight

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

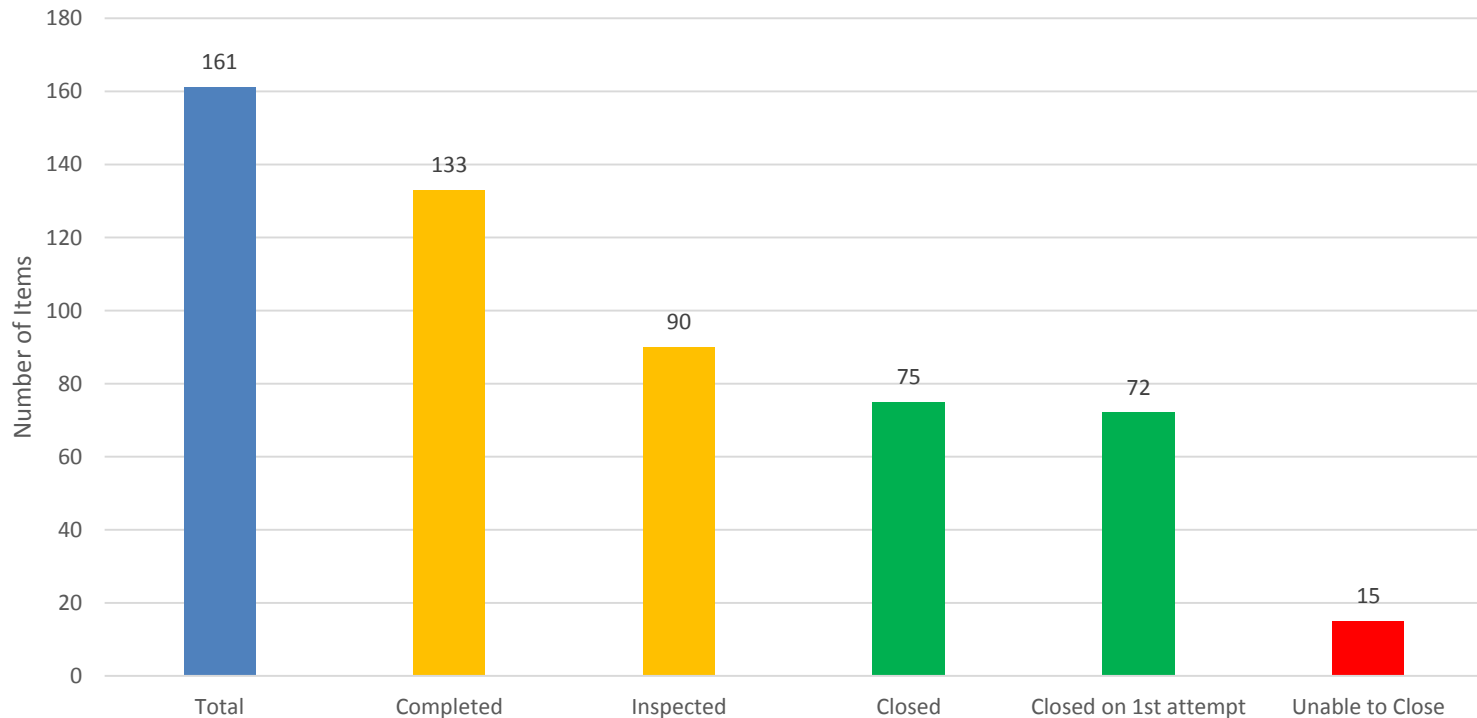
NRC Heightened Oversight Activities

- Completed review of ANO's Comprehensive Recovery Plan
- Issued Confirmatory Action Letter
- Conducting inspections of ANO's progress in completing commitments in Confirmatory Action Letter

Confirmatory Action Letter Focused on Six Inspection Areas

- Yellow Findings
- Corrective Action Program
- Human Performance
- Equipment and Engineering Programs
- Safety Culture
- Service Water System

Monitoring ANO Progress in Completing Improvement Actions



Inspection Insights Reveal Improved Performance

- Emphasis on plant safety is more visible
- Leaders are more engaged and accountable
- More conservative decision-making
- Outage performance has improved

Inspection Insights Reveal Improved Performance (cont.)

- Implementation of the corrective action program
- Reduced maintenance and engineering backlogs
- Improved oversight of vendors and supplemental workers
- Increased resources to improve equipment reliability

Inspection Insights Reveal Areas of Slower Progress

- Safety culture surveys show modest improvement
- High emergent workload delays completion of planned maintenance activities
- Preventable human performance errors continue to occur

Recent White Finding

- Emergency diesel generator 2A failed due to inadequate lubrication to a bearing (Sep 2016).
- Latent condition caused by inadequate work instructions
- Performance error occurred prior to ANO being placed in Column 4
- Column 4 oversight actions remain appropriate

Next Steps

- Implement ROP baseline inspection program
- Conduct Confirmatory Action Letter inspections
- Conduct IP 95001 supplemental inspection

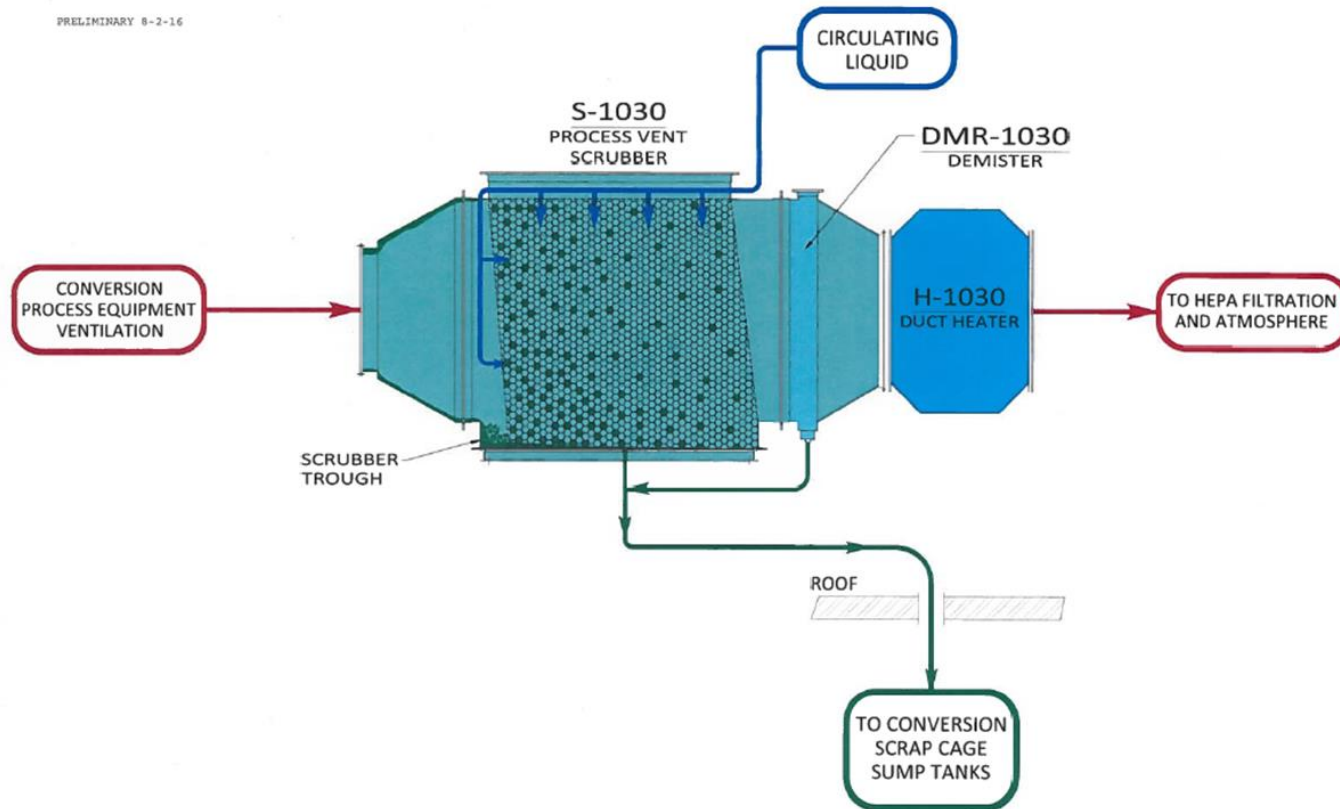
Westinghouse Columbia Fuel Fabrication Facility

Catherine Haney
Regional Administrator, Region II

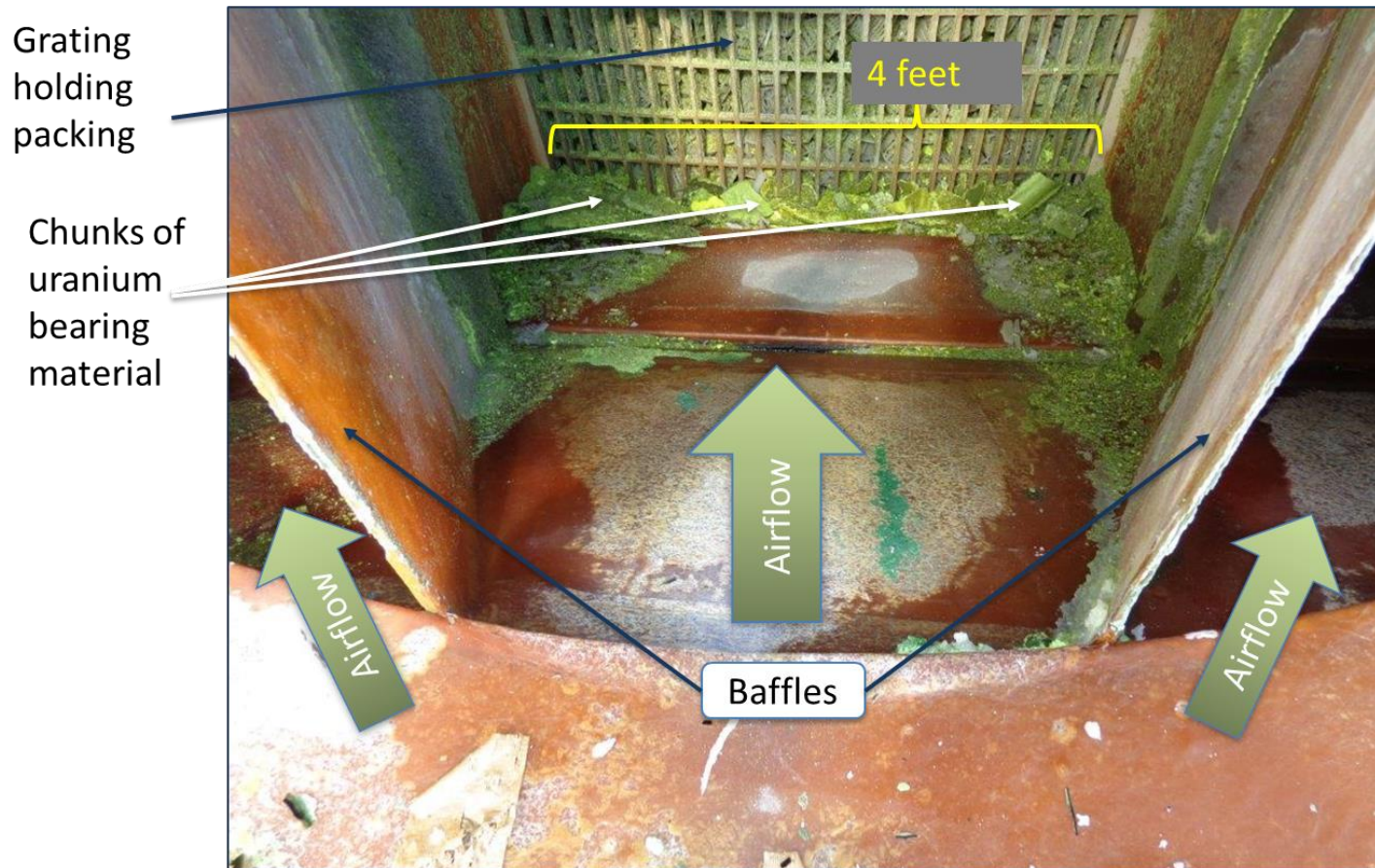
Key Messages

- Westinghouse Columbia Fuel Facility is operating safely
- Enforcement action is ongoing
- Region 2 has increased oversight
- NRC lessons learned complete and action plan is being implemented

Scrubber Schematic



As Found Scrubber Inlet – 5/28/16



Background and NRC Actions

- Event Summary
- Augmented Inspection Team
- Confirmatory Action Letter
- INES Notification
- Information Notice (2016-013)
- Abnormal Occurrence

Heightened Oversight

- Confirmed root and contributing causes
- Completed restart inspections
- Established additional inspections
- Completed follow-up inspection to develop apparent violations

Licensee Actions Are Adequate and Comprehensive

- Completed corrective actions for restart
- Completed independent safety culture evaluation
- Continuing long term actions

Regulatory Activities are Ongoing

- Implement core inspection program as adjusted
- Complete enforcement activities
- Implement NRC lessons learned report action plan

Nuclear Materials and Waste 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 data
- Abnormal Occurrences
- Significant enforcement actions
- Strategic Goals and Performance Measures

No Significant Performance Trends Identified

- 398 NMED events
- 11 AOs
- Event numbers small compared to the millions of uses

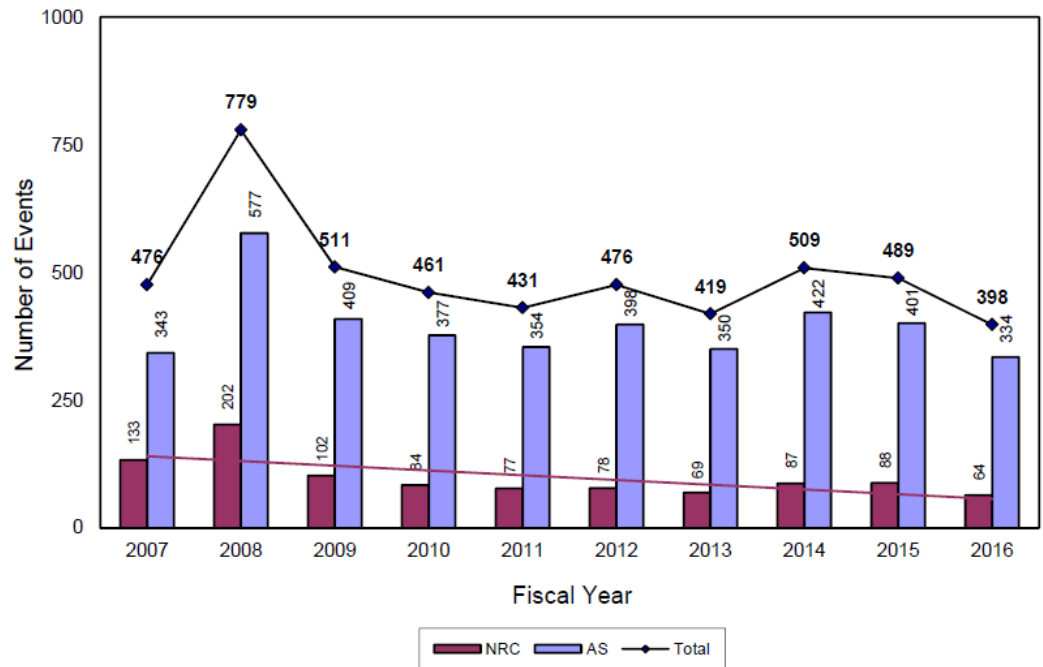


Figure 1. All NMED Events (4,949 total) from SECY 17-0042, “Annual Report to the Commission on Licensee Performance in the Materials and Waste Programs Fiscal Year 2016”

Met Strategic Goals

- One nuclear materials licensee 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

Chris Miller, Director
Division of Inspection and
Regional Support
Office of Nuclear Reactor Regulation

Reactor Oversight Process is a Mature, Effective Program

- ROP provided objective, risk-informed, understandable, and predictable oversight
- Redesigned Self-Assessment approach implemented in 2016 to better assess the mature program
- Improvements to the ROP were identified and implemented

Fully Implemented Revised Self-Assessment Program

- Three major elements
 - Assess adherence to the current program
 - Monitor ROP revisions and assess effectiveness of recent changes
 - (NEW) Perform targeted, in-depth assessment and peer review

Revised Self-Assessment Program Indicated a Healthy Program

- Strong adherence to ROP indicated by metrics and area evaluations
- Recent ROP revisions are effective
- New Inspection Finding Resolution Management process trial period

Successfully Performed First Regional Peer Review and Focused Review

- Regional Peer Review
 - Focused on Region II
 - Significant value from cross-regional discourse
- Focused Review
 - Robust, effective inspector training and qualification program
 - Identified areas for improved effectiveness

ROP Program Goals Fully Met in 2016

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

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
- 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
- ROP – Reactor Oversight Process
- SRV – Safety Relief Valve