



Staff's Readiness to Transition Regulatory Oversight and Licensing of AP1000 Plants from Construction to Operations

Construction Inspection Program Public Meeting
July 19, 2016

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Purpose of Briefing

- AP1000 Transition to Operations
 - Background
 - Status
 - Reactor Oversight Process for New Reactors
- Construction Reactor Oversight Process
 - Upcoming Revisions
 - Program Points of Contact

AP1000 Transition Plan Background

- In 2013, a transition working group (TWG) was established to identify and assess all regulatory functions necessary to support the transition of new reactors from construction to operation
- Staff published report, “Assessment of the Staff’s Readiness to Transition Regulatory Oversight and Licensing as New Reactors Proceed from Construction to Operation,” September 9, 2014 (ML14031A387)
- The report identifies 21 readiness issues (RI’s) and implementing recommendations

AP1000 Transition Plan Background

- NRO SES Champion – Mike Mayfield
- NRR SES Champion – Eric Benner
- NRO/DEIA provides Project Management to track status of RI's with NRO, NRR, OGC, RII, and NSIR (Andrea Johnson)
- NRO/NRR merger: While the actions identified by the Transition WG will need to be completed regardless, there is coordination with the merger WG to identify potential synergy
- Timing of completing the actions will be affected depending on the timing of a merger

AP1000 Transition Plan Background

RI's identified in the following areas

- Licensing and Incident Response
- Reactor Oversight (cROP and ROP)
- ITAAC Closure, ITAAC Hearings, Delegations
- Budget and Organizational Structure
- Transitioning licensing and regulatory oversight for the design center

AP1000 Transition Plan Background

RI-19A, 18A: Reach formal agreement on the transition approach (from NRO to NRR), and provide clarity of responsibilities for licensing and operational oversight

- OD and RII RA alignment meeting in January 2015; formal agreement reached on the transition approach (ML15042A353)
- Regulatory oversight will be transferred from NRO to NRR on a unit basis at the 10 CFR 52.103(g) finding for the respective unit
- Licensing for the design center will be transferred from NRO to NRR when the last of the four units under construction receives its 10 CFR 52.103(g) finding or shortly thereafter.

AP1000 Transition Plan Status

- Developed transition implementation plan
- Modeled off of the Watts Bar Unit 2 transition plan
- NRO, NRR, OGC, NSIR, and RII Division level concurrence complete
- Need to consider other related activities
 - ✓ NRR reorganization
 - ✓ NRO/NRR merger timing
 - ✓ Possible new AP1000 licensing actions
- Make available to public and discuss comments at future public ROP meeting
- Goal is for OD/RA concurrence/approval 12/16

ROP for New Reactors

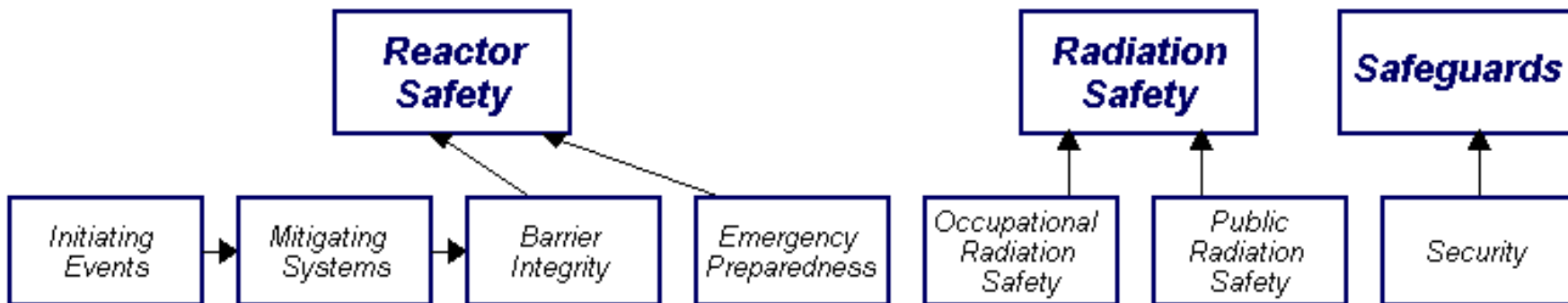
- Working Group (WG) with representatives from NRO, NRR, and Region II
- SRMs and Transition Plan guide WG activities
- Summary of identified ROP changes
- WG Approach and Project Plan

ROP for New Reactors – SRM-S13-0137

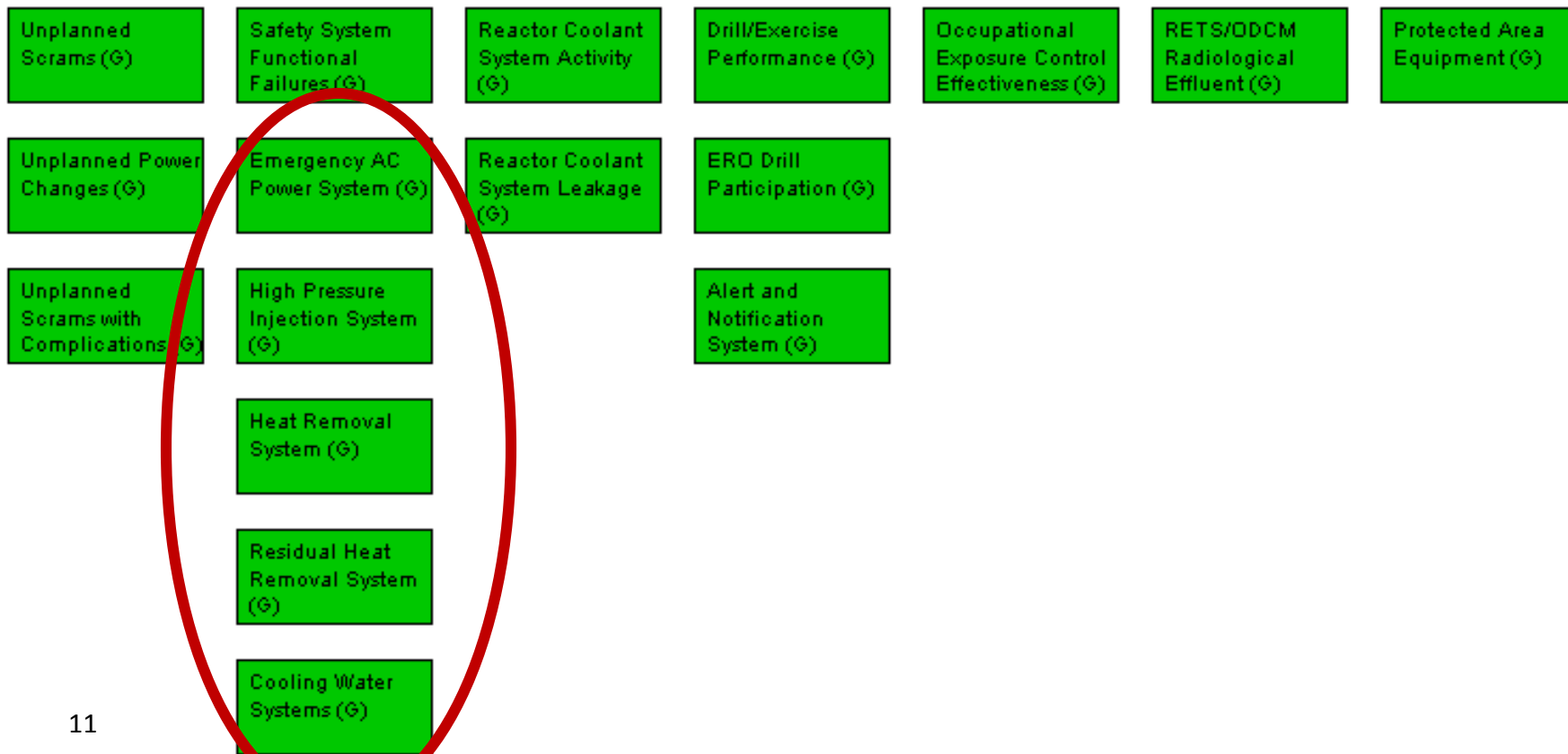
- Overall structure of existing ROP should be preserved
- Commission directed staff to enhance the existing SDP
 - Develop structured qualitative assessment for events or conditions not evaluated in the risk models
 - Continue to place emphasis on the use of the existing quantitative measures of the change in plant risk
- Commission approved the staff's recommendation to develop appropriate PIs and thresholds for new reactors
- Staff should notify Commission through the annual ROP self-assessment report of any further needed changes

ROP for New Reactors Summary

- ROP Framework
 - Unchanged – Same seven cornerstones and goals
- PI Program
 - Mitigating Systems Performance Index Challenges
- Inspection Program
 - Refueling Outage Inspection Procedure, RTNSS
- Significance Determination Process
 - Guidance needed to accommodate passive components and digital I&C, etc
- Assessment Program
 - Unchanged – PIs and findings inform Action Matrix response
- Cornerstones Affected
 - IE, MS, and BI (Reactor Safety, most risk-informed)



Performance Indicators



ROP for New Reactors Approach

- Develop the SDP and PIs concurrently and holistically, consistent with SRM-S13-0137 direction, along with changes to the baseline inspection program
- Involve internal and external stakeholders, including NRR, NRO, Region II, Industry, ACRS, and public
- Likely run tabletops and/or pilot to validate proposals
- Development and implementation consistent with ROP goals and principles of good regulation
- Produce single comprehensive paper with enough detail to provide the Commission the staff's plans and recommendations

ROP for New Reactors Plan

- Developed, distributed, and discussed detailed project plan with key milestones and deliverables (ML16145A086)
- Conduct a series of public meetings and tabletop exercises through 2nd quarter 2017
- Produce draft SECY(s), discuss in public meeting, and brief ACRS in 3rd quarter 2017
- Revise SECY as needed and submit to Commission in 4th quarter 2017
- Finalize guidance documents by 4th quarter 2018
- NOTE: Current dates based on anticipated operation of first units in June 2019 (this date is unofficial and could change)

cROP Activities

- IMC 0613, Power Reactor Construction Inspection Reports
 - Revision to be issued in next 60 days; updates some minor violation guidance
- IMC 2505, Periodic Assessment of Construction Inspection Program Results
 - Revision to be issued in next 90 days; changes threshold for cross-cutting theme, changes entry criteria for degraded cornerstone column, eliminates mid-cycle review meetings
- IMC 2506, Construction Reactor Oversight Process General Guidance and Basis Document
 - Revision to be issued in next 90 days; add operational program inspection basis and guidance

cROP Points of Contact

- Phil O'Bryan (Phil.OBryan@nrc.gov) 301-415-7000
 - IMC 0613 including safety culture (Appendix F), IMC 2519
- Tom Fredette (Thomas.Fredette@nrc.gov) 301-415-8538
 - IMC 2505
- Carl Weber (Carl.Weber@nrc.gov) 301-415-6689
 - IMC 2506, IMC 2522, Public Web Pages