Risk-informed Steering Committee Meeting

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Risk Prioritization Initiative

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Outline

- Background
- What is Risk-informed Prioritization?
- Demonstration Pilots
- Cumulative Effects of Regulation/ Risk Prioritization Initiative (RPI) Options
- Next Steps

Background

From SRM on RPI:

"The Commission has approved an initiative to further explore the idea of enhancing safety by applying probabilistic risk assessment (PRA) to determine the risk significance of current and emerging reactor issues in an integrated manner and on a plant-specific basis."

- ✓ Request NRC staff to develop a Notation Vote Paper
- ✓ Explore ideas on a process to incentivize Level 1, 2 PRA use
- ✓ Consider rulemaking options (voluntary) and resource estimates
- ✓ Address issue management (i.e., should not perpetually defer)
- ✓ Consider how inspection and compliance issues should be treated
- ✓ Should be risk-informed, i.e., follow NRC risk framework

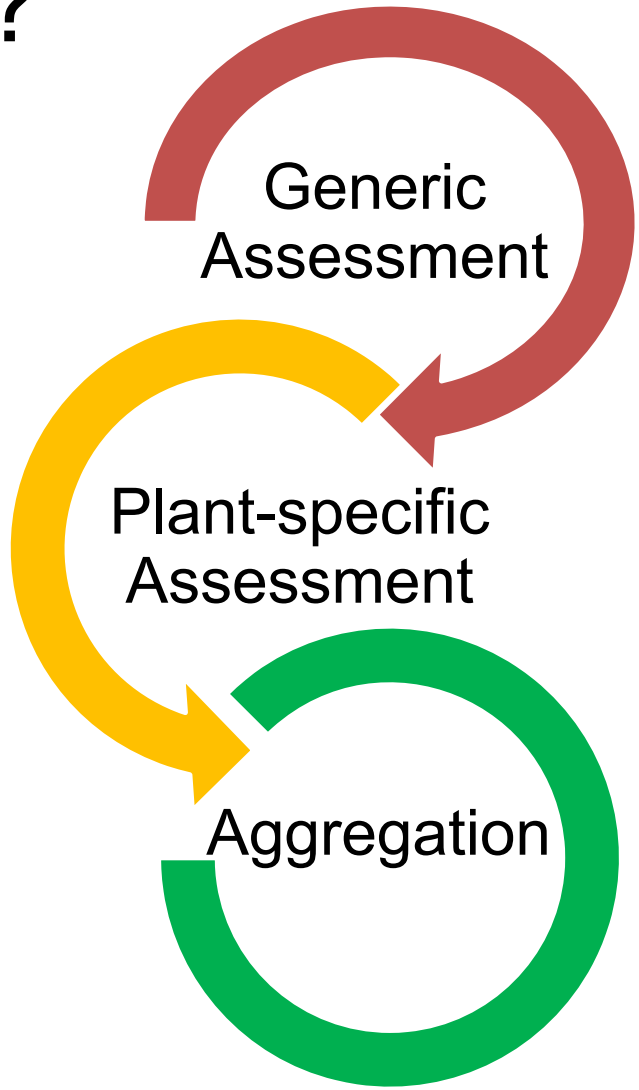
Background (Cont'd)

Nuclear safety is advanced when licensees and the staff focus their time, attention, and resources on the issues of greater safety significance at each plant – i.e. addressing the most safety significant issues first.

Background (Cont'd)

- Public/Industry Interactions:
  - Draft Guidance developed by NEI
  - Generic and Plant-specific Tabletops
  - March 2014 RIC Technical Session
- COMSECY to the Commission to merge CER & RPI
- Demonstration Pilots

What is Risk-informed Prioritization?



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Demonstration Pilots

- Prioritized regulatory issues:
  - National Fire Protection Association-805 modifications
  - Bulletin on Open-phase (Bulletin 2012-01)
- Plant initiatives:
  - Emergency Diesel Generator System Improvements
  - High Pressure Control Injection System Improvements

CER / RPI – Options*

* Options could be implemented in a phased approach

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Option 1

- Rulemaking process enhancements
- Continue to improve cost estimating within regulatory analyses
  - Increase (and early) interaction with stakeholders on draft regulatory analysis
  - Explore use of contractors to develop independent cost estimates
- Expanding CER to Generic Letters

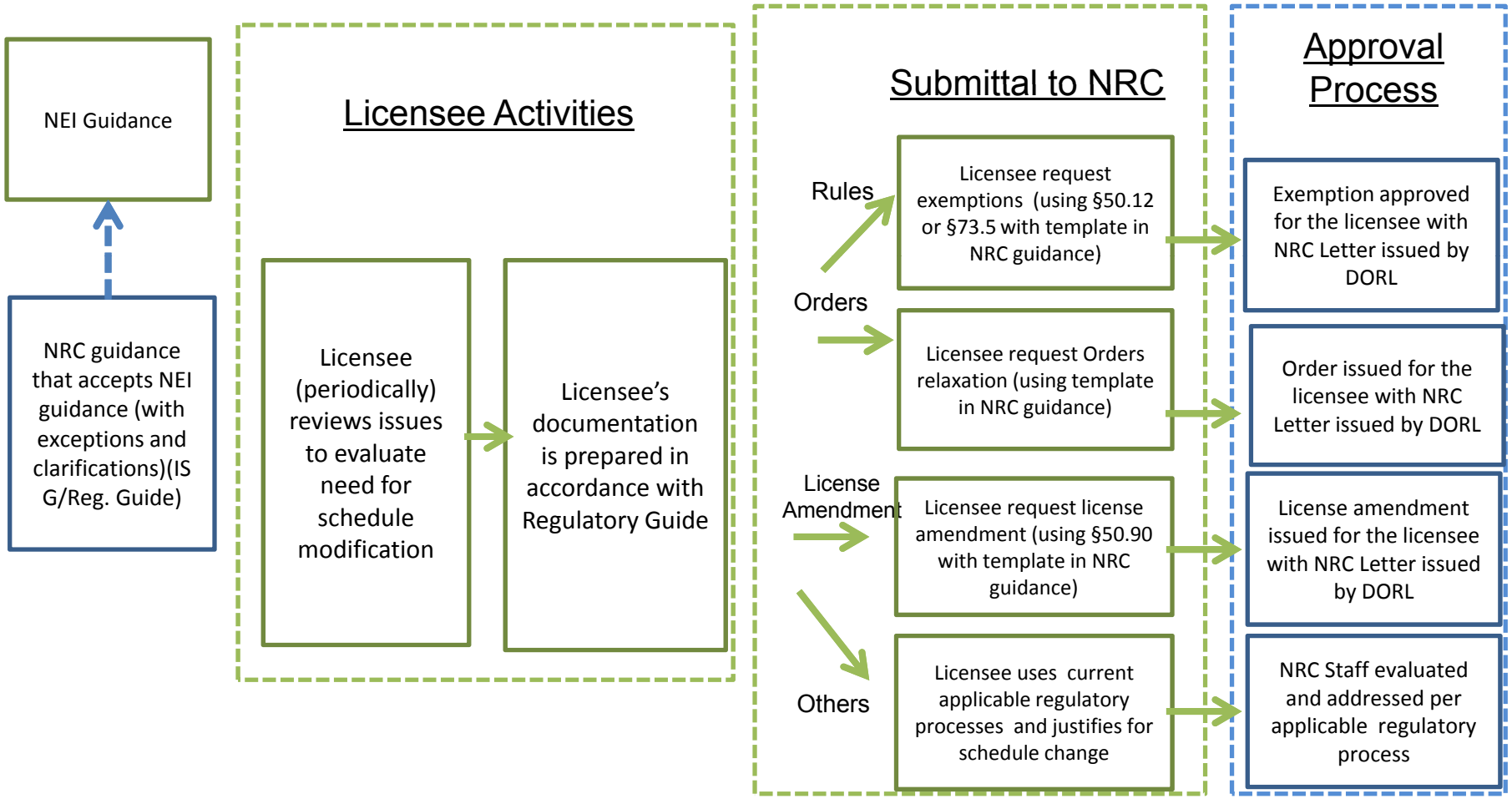
Option 2

- Establish pilot of an NRC expert panel to consider CER impacts for operating reactors
- Panel would characterize and prioritize regulatory actions using risk insights
  - Pilot across the operating reactor business line
  - Screen and prioritize prospective regulatory actions
  - Comprised of senior managers and subject matter experts

Option 2 (Cont'd)

- Existing applicable regulatory processes augmented with a risk-informed prioritization process for scheduling
  - Augments existing processes with a risk-informed prioritization methodology to facilitate the submittal, review, and approval/non-acceptance
  - Regulatory Guide that would endorse a risk-informed method to justify the regulatory action
  - Development of templates for the licensees to facilitate submittals and ensure consistency in the information provided

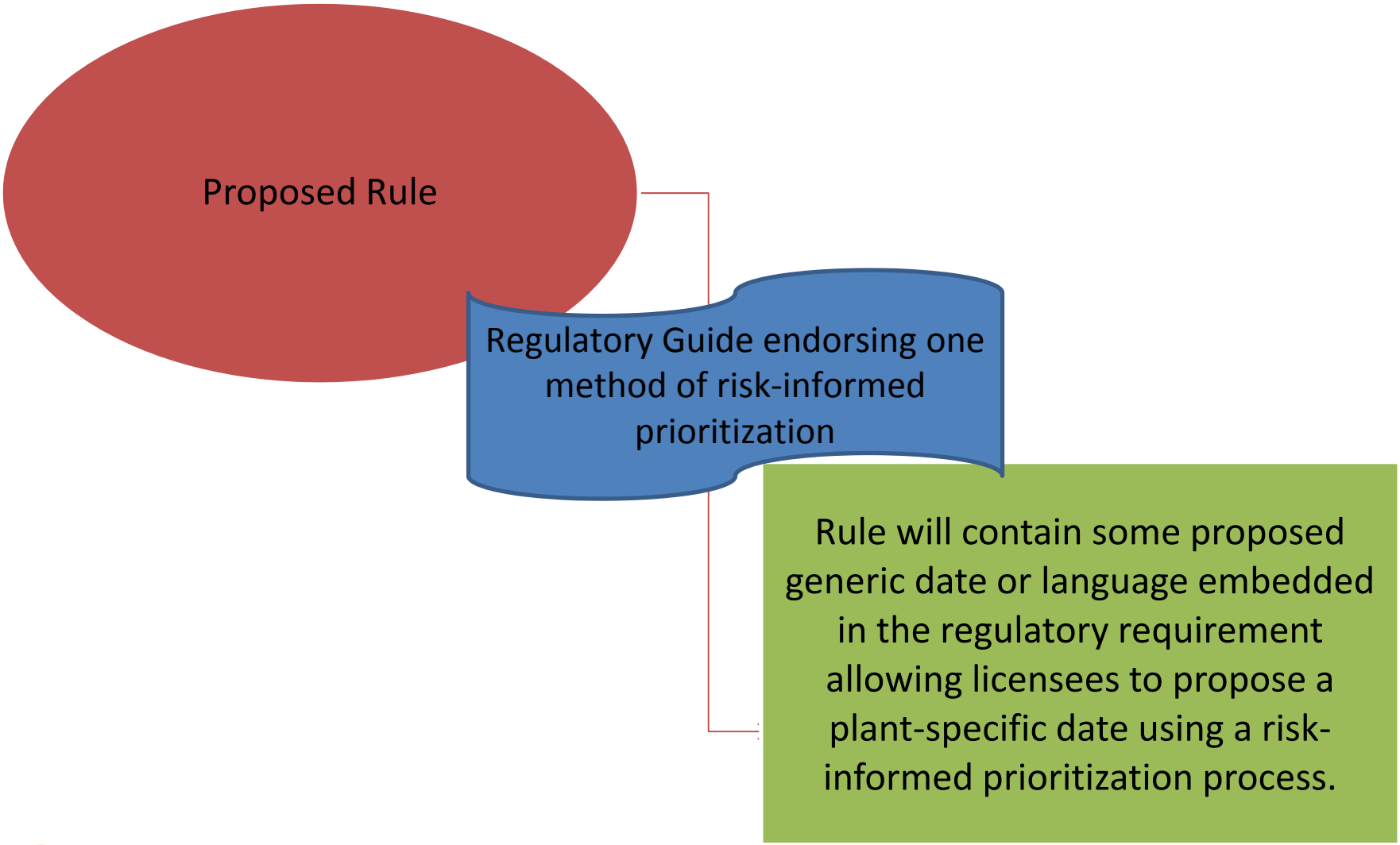
Option 2 (Cont'd)



Option 3

- Prospective rules/orders that allow for licensees to submit plant-specific implementation schedules using a risk-informed prioritization process
  - Licensees would be allowed to implement future rules or orders using a plant-specific schedule
  - Important feature is the use of plant-specific risk insights to inform the implementation schedules of new rules or orders or other regulatory actions.

Option 3 – Plant-specific Schedule Implementation



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Option 4

- Explore rulemaking to develop a new process that would allow licensees the flexibility to reschedule regulatory requirements without the need for prior regulatory approval

CER/RPI Options (Cont'd)

- Options focus time, attention, and resources on issues of highest safety significance
- Options 2 – 4 incentivize the use and in some cases the development of PRA
- Provides a systematic approach to risk-informed decision-making
- ACRS supports staff recommendations and interested in reviewing and commenting on draft guidance should the Commission approve Option 2 (Letter dated March 11, 2015, ADAMS Accession No. ML15070A282)

Next Steps

- Paper is with the EDO and due to the Commission by April 1, 2015.
- Brief the Commission on May 19, 2015.

References

- SRM to COMGEA-12-0001/COMWDM-12-0002 – "Proposed Initiative To Improve Nuclear Safety And Regulatory Efficiency," dated February 6, 2013 (ADAMS Accession No. ML13037A541)
- COMSECY-14-0014 – "Cumulative Effects of Regulation and Risk Prioritization Initiative: Update on Recent Activities and Recommendations for Path Forward," dated April 9, 2014 (ML14086A729)
- SRM-COMSECY-14-0014 (July 18, 2014;ML14199A187)
- Staff's Plan to Participate In Demonstration Pilots (July 20, 2014; ML14169A167)
- Summary of the NRC Staff Observations on NEI Demonstration Pilots (October 31, 2014; ML14302A269)
- NEI Report on Prioritization and Scheduling Pilot (December 15, 2014; ML14349A375)
- Information about RPI: www.regulations.gov (Docket ID: NRC-2013-0064)

Questions?

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