



RIC 2011 Implementation of Risk-Managed Technical Specifications for New Reactors

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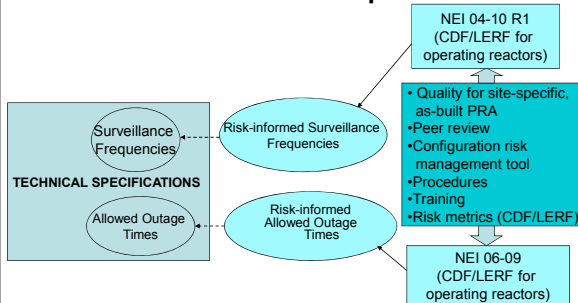
Presentation Outline

- Risk-Informed Technical Specifications
- PRA Regulations for New Reactors
- Regulatory Guidance
- Challenges for New Reactors
- Addressing New Reactor Challenges
- Path Forward

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Risk-Informed Technical Specifications



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PRA Regulations for New Reactors

- **10 CFR 52.79(a)(46):** COL application must contain ... a description of the plant-specific PRA and its results
- **10 CFR 50.71(h)(1):** COL holder shall develop a level 1 and level 2 PRA that covers initiating events and modes for which NRC-endorsed standards exist one year prior to the scheduled date for initial fuel load
- **10 CFR 50.71(h)(2):** COL holder must maintain and upgrade the PRA

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Regulatory Guidance

- **Regulatory Guide 1.174:** Risk-informed decisions on plant-specific changes to the licensing basis
- **Regulatory Guide 1.177:** Risk-informed Technical Specifications
- **DC/COL-ISG-08 (New Reactors):** "Interim Staff Guidance on the Necessary Content to Plant-Specific Technical Specifications for a Combined License" (ML082520707)

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Challenges for New Reactors

- **Complete Technical Specifications (for COL applicants)**
 - NRC-endorsed industry guidance assumes:
 - Site-specific, as-built PRA, incorporating operating experience
 - Peer review of PRA
 - Configuration risk management tool available for review
 - Procedures and training information available for review
- **Risk-informed regulatory guidance for new reactors**
 - Policy decision on enhanced safety for new reactors
 - Options include: (1) Status quo, (2) Revise guidance, as necessary, (3) Establish new, lower metrics

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Addressing New Reactor Challenges

- **COL applicant/licensee submittal information** (e.g., quality of site-specific, as-built PRA; peer review of PRA; procedures; training; configuration risk management tool)
 - Develop "methodology"
 - Develop additional regulatory guidance
- **Risk-informed regulatory guidance for new reactors**
 - Obtained stakeholder input
 - Requested Commission direction

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Path Forward

- Continue public meetings with combined license applicants discussing acceptable "methodology"
- Develop additional regulatory guidance addressing "methodology"
- Await/implement Commission direction on risk-informed regulatory guidance for new reactors
- Prepare for combined license amendments

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Acronyms

- PRA:** Probabilistic Risk Assessment
CDF: Core Damage Frequency
LERF: Large Early Release Frequency
COL: Combined License
DC: Design Certification

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