



Status of Risk-Informed Licensing Activities and Associated Challenges

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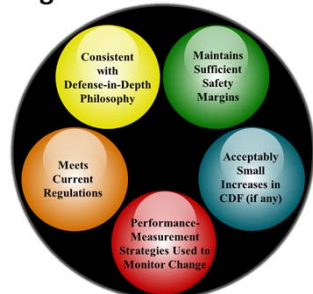
Overview

- In 1995, the Commission issued a final policy statement on the use of PRA, which states in part:
 - Use of PRA should be increased in all regulatory matters to the extent supported by the state-of-the-art
 - PRA should be used to reduce unnecessary conservatism
 - PRA should be as realistic as possible and supported by publicly available data
- Since then, the NRC staff has issued a number of risk-informed regulations and supporting regulatory guidance
 - Many risk-informed applications have been submitted and approved by the staff

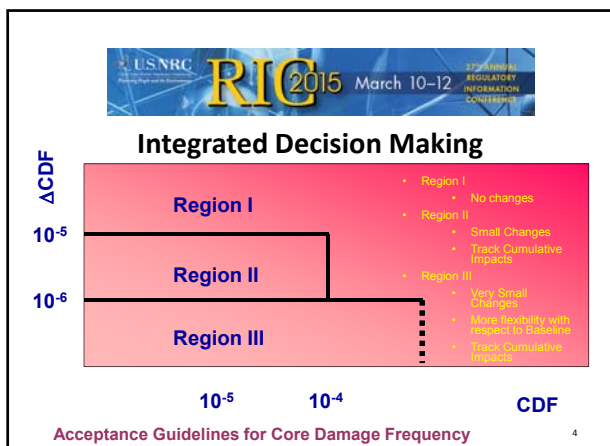
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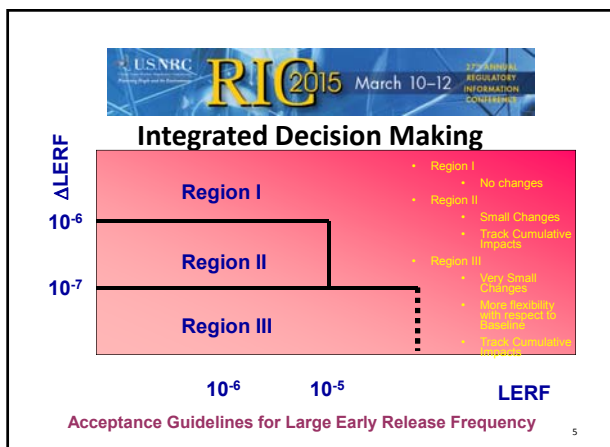


Integrated Decision Making



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Risk-Informed, Performance-Based Fire Protection (NFPA 805)

- Two pilot License Amendment Requests (LARs) approved:
 - Shearon Harris and Oconee
- Nine non-pilot LARs approved:
 - Arkansas Nuclear One 2, Brunswick 1, Callaway, Cooper, DC Cook, Duane Arnold, Fort Calhoun, Nine Mile Point 1, and V.C. Summer
- 16 LARs are currently under review



“Pilot” Risk-Informed Applications

- Risk-Informed Approach to Resolving GSI-191, Assessment of Debris Accumulation on PWR Sump Performance
 - South Texas Project LAR is currently under review
 - A multi-disciplinary review team has been formed with representatives from various NRC technical organizations
- 10 CFR 50.69, Risk-Informed Categorization and Treatment of SSCs for Nuclear Power Reactors
 - Vogtle License Amendment was issued in December 2014

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“Pilot” Risk-Informed Applications (Cont’d)

- Risk-Informed Technical Specification Initiative 4b, Flexible Completion Times
 - Vogtle safety review has been completed
 - License Amendment is expected to be issued soon

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Risk-Informed Technical Specifications Applications

- LARs currently under staff review for Initiative 5b (Relocation of select Surveillance Frequency Requirements out of TS into a licensee controlled program)
 - Calvert Cliffs, Fermi 2, Millstone 2, Nine Mile Point 2, Perry, Point Beach, Sequoyah, St. Lucie, Susquehanna, and Turkey Point
- The NRC staff has completed the review of 3 LARs since beginning of 2014.
 - Millstone 3, Seabrook, and Beaver Valley

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Risk-Informed Technical Specifications Applications (Cont'd)

- LARs currently under staff review for Initiative 4b (Risk-Informed Completion Times)
 - Diablo Canyon, St. Lucie, and Turkey Point
- Acceptance Reviews of other three LARs have been completed
 - Review of Diablo Canyon LAR started in late 2014
 - Review of St. Lucie and Turkey Point LARs started in January 2015

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Other Risk-Informed Applications

- In-service Inspection
 - Two LARs are under review
 - Five completed since 2014
- Integrated Leak Rate Test Extension
 - 11 LARs are under review
 - Three completed since 2014

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Summary of Challenges

- Lack of PRA resources
 - Limited NRC reviewers are available with PRA expertise
 - Limited PRA practitioners are available in the industry
- PRA Quality and Scope
 - PRAs are not always reviewed to latest ASME Standard as clarified by latest revision of RG 1.200
 - If external events (e.g. fire, seismic) PRAs are used, they should be peer reviewed per RG 1.200 guidelines.
- Quality of some risk-informed applications submitted for NRC review could be improved

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Conclusions

- Existing industry and regulatory guidance documents are adequate to support current risk-informed licensing activities
- PRA scope and technical adequacy should be commensurate with the Risk-Informed application
- NRC and industry should continue working together to address current risk-informed regulatory and technical challenges.

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