

# Risk Insights for Aging Management

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# Risk Insights for Aging Management – Why?

## U.S. Department of Energy, Light Water Reactor Sustainability Program

<https://www.energy.gov/ne/nuclear-reactor-technologies/light-water-reactor-sustainability-lwrs-program>

“Nuclear power has reliably and economically contributed approximately 20 percent of electrical generation in the United States over the past two decades. It remains the single largest contributor (approximately 56%) of non-greenhouse-gas-emitting electric power generation in the United States.

Operation of the existing fleet of plants to 60 years, extending the operating lifetimes of those plants beyond 60 years and, where practical, making further improvements in their productivity are essential to support the nation’s energy needs: supply, reliability, and diversity.” (emphasis added)

# Risk Insights for Aging Management

- Since 1995, the NRC and industry have significantly expanded use of PRA & risk insights:
  - Maintenance Rule
  - Risk-informed Oversight
  - Risk-Informed Plant Licensing Basis Changes
  - Risk-Informed In-Service Inspection
  - Risk-Informed Categorization of SSCs ( § 50.69)
  - Risk-Informed Technical Specifications
  - Risk-Informed Fire Protection
  
- All operating reactors have invested heavily on site-specific PRA models that added significant quality and level of detail since the 1990s
  
- While the focus of each risk-informed application may be different, there are insights that can be leveraged to inform aging management effects

# Risk Insights for Aging Management

- January 12, 2022 - Submitted Selective Leaching and Inaccessible Cable AMP mark-ups for incorporation into GALL-SLR and GALL (ML22019A292)
- March 10, 2022 – Regulatory Information Conference Technical Session (<https://ric.nrc.gov/docs/abstracts/sessionabstract-33.html>)
- June 2, 2022 – Public Meeting to Discuss January 12, 2022, Submittal (ML22152A094)
- CY22 - Development of NEI Technical Report on Risk Insights for Aging Management (RIAM)

# Priorities and Areas of Focus

- #1 Priority: Supporting review and approval of RIAM pilot AMP mark-ups
- #2 Priority: Completion and submittal of NEI Technical Report on RIAM for NRC endorsement
- #3 Priority: Expansion of RIAM framework to multiple AMPs

# Questions/Discussion

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