



**GSI-191**

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**Outline**

- Summarize actions, findings and key results in 2011
- Identify paths forward and necessary actions to implement plant specific resolution



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**Status on January 1, 2011**

- Commission SRM issued December 23, 2010
  - Measures taken thus far have contributed greatly to safety and adequate defense-in-depth is being maintained
  - Important to resolve GSI-191 using sound technical basis
  - Completion of tests and analyses critical to understand and address uncertainties
  - Defer further GSI-191 plant modifications until tests and analyses are completed
  - Staff should continue deterministic path for plants choosing this approach
  - Staff should consider options to risk-inform GSI-191 resolution



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### Summary of Key Tests and Analyses

- Zone of Influence Tests (PWROG)
- Modifications to debris preparation for testing
- Bypass testing
- Large Flume Strainer Tests (PCI)
- In-vessel downstream effects (PWROG)
- Chemical effects testing



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### Resolution Pathways

- **Traditional Deterministic Pathway**
  - Uncertainties addressed via conservative treatment
  - Viable path for low/no fiber plants
- **Full Risk-Informed (RG 1.174) Pathway**
  - STPNOC pilot application
  - Viable path for all PWRs
- **Alternative Risk-Informed treatments**
  - Break Characteristics model for debris generation
  - Increased allowance for operator actions
  - Credit for non-safety equipment and actions



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