



U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

RIC 2007
Generic Safety Issue 191
Status and Path Forward

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Background

- GSI-191 initiated to address potential for inadequate core cooling and/or containment spray after a loss of coolant (LOCA) accident because of debris-induced clogging of containment sump strainers
- NRC Generic Letter 2004-02 called for licensees to take action to address the issue and show adequate long-term core cooling

Issues

- Chemical effects - formation of precipitates from interactions between materials in containment (e.g., pH buffers and insulation)
- Downstream effects (on systems components and nuclear fuels)
- Coatings

Current Status

- NRC has completed research to help determine extent and significance of issues related to sump clogging
- Essentially all licensees greatly enhancing sump strainer size
- Licensees sponsoring testing to show strainers can withstand expected post-LOCA debris loading
- NRC auditing corrective actions at selected plants

Additional Licensee Actions

- Some licensees are:
 - Removing fibrous insulation
 - Considering changing out pH buffer
 - Installing debris interceptors
 - Making changes to reduce impact of containment spray (less or no spray flow means lower flow through strainers and less generation and transport of debris)

NRC Audits

- Plan 11 audits across cross-section of plant types and strainer vendors
- 8-person teams onsite for 1 week
- Evaluate plant actions against NRC/NEI guidance
- Alternative approaches acceptable if justified
- Result is publicly available audit report

NRC Expectations and Plans

- Licensees provide plant-specific demonstration of compliance with long-term cooling requirements by end of 2007
- NRC plans to review GL 2004-02 responses in late 2007/early 2008 – leading to issue closure later in 2008

Extension Requests

- Some licensees have requested and received extensions to complete certain corrective actions a few months beyond 2007
- Criteria for approval in SECY-06-0078
- Still expected to provide complete GL 2004-02 responses by end of 2007