



Generic Safety Issue 191, PWR Sump Performance

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Agenda

- GSI-191 – Status of Completion
- Path Forward
- BWR Strainer Activities
- Conclusions

GSI-191 – Status of Completion

- Purpose – demonstrate compliance with 10 CFR 50.46(b)(5), long-term core cooling
- Many safety improvements
- Much larger ECCS strainers
- Some removing fibrous insulation
- Strainer test protocols generally acceptable

NRC Staff Actions

- Executed multi-year integrated plan – frequent revisions
- Issued guidance in 2004 and 2008
- Detailed reviews of submittals – some issues largely resolved
- Resolved all strainer performance issues for over half of PWRs

Actions Remaining

- Goal is issue closure in 2010
- Need to resolve issues for remaining plants
- In-vessel effects
- Some licensee test/evaluation methods not technically justified
- Additional modifications possible

Path Forward

- Test strainer performance using approach acceptable to staff
- Make plant configuration match tested one within two cycles
- Open to proposed alternatives, not to delay final completion

Improvements Implemented

- Enhanced communication among NRC staff, licensees, and vendors
- New review approach to balance conservatisms and uncertainties or potential nonconservatisms
- Facilitated sharing of lessons learned among licensees

BWR Strainer Activities

- BWR ECCS strainer performance evaluated in 1990s
- Enlarged strainers
- So BWRs in better place now than PWRs were at start of GSI-191
- But some subjects need work and regulatory review

BWR Strainer Activities (Continued)

- Owners Group implementing evaluation plan
- Starting to see some slips in dates for planned actions
- Staff monitoring carefully for need to take additional measures
- Lessons learned from GSI-191

Conclusions

- PWR licensees have made many safety improvements
- Some challenges remain
- Goal is issue closure in 2010
- Implementing GSI-191 lessons learned in evaluating BWR strainer performance

Acronyms

- BWR – boiling water reactor
- ECCS – emergency Core Cooling System
- GL – generic letter
- GSI – generic safety issue
- PWR – pressurized water reactor