Generic Safety Issue 191 Plant Audits

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Purpose of Presentation

- Summarize audit process
- Discuss some results

Audit Purposes

- Increase effectiveness and efficiency of NRC and industry efforts to address Generic Letter (GL) 2004-02 by:
  - promoting more timely issue resolution
  - promoting uniform treatment of issues
  - identifying issues early to promote consistent responses and stable regulatory environment

Selection Criteria and Audit Plans

- Approximately 11 audits to be conducted
- Emphasis is on adequacy of design and supporting analyses
- Representative sample across:
  - Strainer vendors
  - Reactor/containment designs
  - Plants with low and high fiber loading
  - All 4 NRC Regions
- 3 audit visits complete, 1 audit report final
- One audit every other month into spring 2008

Process

- Documents requested in advance
- “Snapshot” of completion status
- Usually 1 week or less onsite
- 7-8 auditors
- Usually no requests for additional information (RAIs)
- Product is an audit report
- Open items to be addressed by licensees in final GL 2004-02 responses
- Reports to be public (after affected licensees and contractors verify nonproprietary) on NRC’s sump website

Note: Inspection of installation of modifications at each plant not within scope (TI-2515/166)

Audit Results

- Should be viewed in context that NRC does not expect plants audited early in the process to be 100% complete or issue-free
  - Cannot perform all audits when all licensee actions complete (resource constraints, plus would defeat purpose of early identification and sharing of issues)
  - Chemical effects work still in progress at most or all plants
  - Topical reports still under NRC review
  - Plant-specific success path may change after the audit
- Licensees selected for audit have been very cooperative and have thereby contributed to the success of the audits and to the industry-wide efforts to address GL 2004-02

Issues Identified (1 or more plants)

- Debris source term configuration management
- Potential for mineral wool to float, then sink at strainer
- Design bases of trash racks
- Reflective metal insulation not adequately addressed in head loss testing

Issues Identified (Continued)

- Potential for coating debris leading to chemical effects
- Potential for water vapor flashing in strainer
- Downstream debris inspections
- Definition of system lineups, mission times, flows and pressures for downstream effects

Issues Identified (Continued)

- Calculation of pump degradation (pressures and flows)
- Component bearing loads
- Component wear evaluated as 3-body vs. 2-body wear
- Effects on room environment caused by leakage from degraded seals