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Status of and NRC Expectations Regarding Audits of Licensee Corrective Actions for Generic Safety Issue 191

Presented by:
Michael Scott
Office of Nuclear Reactor Regulation

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Purpose of Presentation

- Discuss audit results to date
- Communicate NRC expectations for future audits

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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 10 audits to be conducted – all now scheduled/confirmed (list follows) – could add others if warranted
- Emphasis is on adequacy of design and supporting analyses

GSI-191 Audits

Plant	Site Visit	Report Status
Watts Bar	March 2006	Complete
San Onofre	Aug/Sep 2006	Complete
Prairie Island	October 2006	Complete
Millstone	January 2007	Nearly complete
Oconee	March 2007	In progress
Waterford	June 2007	In progress
North Anna	July 2007	
Salem	October 2007	
Indian Point	December 2007	
St Lucie	January 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
- Draft open items to be visible soon after audit as publicly available memo from M.L. Scott to cognizant Branch Chief in Projects Directorate
- Open items to be addressed by licensees in final GL 2004-02 responses (or by supplement, for last audits)
- 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 Report Visibility

- Following audit reports are publicly available via ADAMS and NRC's PWR Sump Performance public web page:
  - Watts Bar
  - San Onofre
  - Prairie Island
- Following lists of draft open items are available via ADAMS:
  - Millstone (ML071020194)
  - Oconee (ML071380508)
- Staff positions on ex-vessel downstream effects also available from PWR Owners Group

Audits to Date

- Have assumed work in progress – no specific expectation for completion at time of audit ("snapshot")
- Have now audited at least one licensee of each strainer vendor, so issues specific to that vendor's design and/or methodology will be visible to licensees selected for future audits well before the audit

Audits to Date (Continued)

- Have observed similar issues at multiple plants
  - Single failure of pump to stop
  - Multiple concerns with ex-vessel downstream effects evaluations
  - Lack of basis for key assumptions regarding debris generation and transport
  - More
- Number and significance of open items have precluded overall NRC conclusions regarding adequacy of licensee corrective actions – particularly for high-fiber plants
- Have not observed improving trend in number and significance of open items
- Recognize some issues still under discussion between NRC and vendors – final results not yet fully visible to licensees
  - Chemical effects
  - Downstream effects (in-vessel)
  - Head loss testing protocols associated with near-field settling credit and chemical precipitates

NRC Expectations

- For future audits, expect licensees to have read previous audit reports and open items, noted issues, and (as applicable) addressed them (or show significant progress)
- Also expect progress in addressing chemical effects (methodology chosen and firm plans for testing and evaluation, including time lines)
- For audits near year end, expect substantially complete solution to GSI-191
- Licensees not scheduled for audit should review audit reports to ensure their GL 2004-02 analyses address (as applicable) the issues raised in the audits – will help ensure adequate final supplemental GL 2004-02 responses

Conclusions

- Audit results are significant consideration regarding issue closure
- Results to date have not supported confidence that all licensees have clear path to success by year end
- NRC:
  - Has not observed improving trend in audit results
  - Recognizes some issues still under discussion
  - Expects remaining audits will show path to success and substantial progress
  - Expects plants not audited to address, as applicable, issues identified in the audits