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NEI 97-06, "Steam Generator Program Guidelines

CRGR Briefing
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NEI Letter dated December 16, 1998

NEI's Nuclear Strategic Issues Advisory Committee voted to adopt following formal industry position:

Each licensee will evaluate its existing steam generator program and, where necessary, revise and strengthen program attributes to meet the intent of the guidance provided in NEI 97-06, "Steam Generator Program Guidelines," no later than the first refueling outage starting after January 1, 1999.

Objectives/NEI Initiative

- Providing clear commitment from utility executives to follow SG guidelines provided in the EPRI SGSMP.
- Assuring unified industry approach to emerging SG issues.
- Applying tube integrity performance criteria in conjunction with the performance-based philosophy outlined in the maintenance rule.

Program Elements

- performance criteria
- inspection
- tube integrity assessment
- maintenance and repairs
- leakage monitoring
- secondary side water chemistry
- primary side water chemistry
- foreign material exclusion
- secondary side component integrity
- self assessment
- NRC reporting

Perspective

- NEI guidelines are similar in overall structure and approach as that developed by the NRC staff.
- Devil will be in the details of accompanying EPRI guidelines
 - some of which are not yet available to the staff
 - some which are non-mandatory
 - none of which have been submitted for formal staff review

Maintenance Rule Application

- The performance criteria in NEI 97-06 shall be used to demonstrate that the condition of the steam generator “is being effectively controlled through the performance of appropriate preventive maintenance” (Maintenance Rule §(a)(2)).
 - The NEI guidelines and referenced EPRI guidelines are intended to constitute “appropriate preventive maintenance.”
- If the performance criteria are not met, a cause determination shall be made to determine if goals should be established per §(a)(1) of the maintenance rule.
 - NUMARC 93-01

Performance Criteria

- Structural
 - Deterministic
 - Probabilistic
- Operational Leakage
- Accident Leakage

EPRI Guidelines

Directive Guidelines

- PWR Steam Generator Examination Guidelines
- PWR Primary-to-Secondary Leak Guidelines
- PWR Secondary Water Chemistry Guidelines
- PWR Primary Water Guidelines

Non-Directive Guidelines

- Steam Generator Tube Integrity Assessment Guidelines
- In-Situ Pressure Testing Guidelines
- PWR Steam Generator Tube Plug Assessment Document
- PWR Sleeving Assessment Document

EPRI Nuclear Power Council (NPC)

Issues

- Critical details are not yet addressed.
 - Some of these critical details will apparently be addressed in forthcoming “non-directive” guidelines
- Potential risk implications of ARCs, probabilistic structural performance criteria, and accident leakage performance criteria > 1 gpm are not addressed.
- Adequacy of latest industry guidelines to quantify NDE flaw sizing accuracy needs to be assessed.
- Enforceability
- Technical Specifications