



Steam Generator Tube Integrity Framework

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INTRODUCTION

- Degradation mechanisms
- Rulemaking: 1994 to 1996
- Proposed Generic Letter: 1997 to 1998
- NEI 97-06: 1998 to present

ASSURANCE OF TUBE INTEGRITY

- Regulations (10 CFR Part 50, Technical Specifications)
- Industry programs (plant programs, industry guidance)
- NRC Review and Oversight

CURRENT TS

- Do not reflect improvements for ensuring tube integrity
- Have some unnecessary prescriptive attributes

ACCOMPLISHMENTS

- Improvements in industry guidance
- Improvements in NRC review and oversight activities
- Regulatory Framework
 - S Catawba: February '03
 - S Proposed generic TS: March '03

MODIFICATIONS TO TS

- Objective - provide additional assurance that tube integrity will be maintained during operation
 - S Structural integrity
 - S Leakage integrity

MODIFICATIONS TO TS (cont'd)

- Attributes
 - S Largely performance based
 - S Reflects performance of SGs with new materials
 - S Flexible
- Public involvement

CRITICAL ELEMENTS

- Assessment of potential degradation mechanisms
- Inspection
- Integrity assessment
- Maintenance, plugging, and repair

CRITICAL ELEMENTS (cont'd)

- Leakage monitoring
- Secondary side integrity and foreign material exclusion
- Reports and self assessment
- Water chemistry

ACCOMPLISHMENTS

- Defined process
- Content of TS
- Goals and critical elements of SG program
- Maximum inspection intervals

ACCOMPLISHMENTS (cont'd)

- Leakage performance criteria
- Tube repair criteria and methods
- Condition monitoring requirements

CLOSURE

- Efforts since receiving application (2/25/03)
 - S Public meeting (3/27/03)
 - S RAI issued (4/30/03)
- Resolve structural integrity performance criterion

CLOSURE (cont'd)

- Resolve terminology/phraseology
- Clear up potential inconsistencies in proposal
- Approval of TS changes, completes NEI 97-06 review

SCHEDULE

- Expect Duke Power response to RAI in June
- Catawba SER - 3 months after final RAI response
- Generic SER - 6 months after receipt of final submittal

SUMMARY

- Current framework - reasonable assurance of tube integrity
- Near term schedule for improving regulatory framework
- NRC continues to work on technical issues as they arise

ACRONYMS

CFR - Code of Federal Regulations

NEI - Nuclear Energy Institute

RAI - Request for Additional Info

SER - Safety Evaluation Report

SG - Steam Generator

TS - Technical Specification(s)