

## NEI/NRC Public Meeting on 11/01/01 (NEI 97-06)

<u>Name</u>	<u>Organization</u>	<u>Tel. No.</u>
1. Maitre Banerjee	NRC/DLPM	301-415-2277
2. BOB EXNER	PG&E/NEI	805 545 4302
3. RICK MULLINS	SOUTHERN CO.	205.992.5502
4. MICHAEL SHORT	SO. CALIF. EDISON	949-368-6244
5. Jim RILEY	NEI	202-739-8137
6. TED SULLIVAN	NRC/DE/EMCB	301-415-2796
7. LOUISE LUND	NRC/DE/EMCB	301-415-2786
8. BOB TJADER	NRC/NRR/RTSB	301-415-1187
9. John TSAO	NRC/NRR/EMCB	301-415-2702
10. Joe Birmingham	NRC/NRR/RGEB	301-415-2829
11. Emmett Murphy	NRC/NRR/EMCB	301-415-2710
12. Mohamad Behravanesh	EPRI	(650) 855-2388
13. MATI MERICO	EPRI	650-855-2104
14. NOEL DUDLEY	ACRS	301-415-6888
15. HERMANO LAGALLY	WESTINGHOUSE	724-722-5082
16. Steve Long	NRC/NRR/DSSA	301-415-1077
17. Jeffrey E Johnson	Clever Devices LLC	516-433-6100 x119
18. Joseph M. Mate	CEG-Calvert Cliffs NPP	410-495-4869
19. ALEX MARIDIS	NEI	(202)739-8080
20. Bill B. Jensen	NRC/DE/EMCB	301-415-2795

# Generic License Change Package Issues

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## 1. Inspection Intervals

### SG Exam Guideline Status

- NRC comments on prescriptive interval requirements received in September and are being addressed by the SGMP
- New draft of rev 6 of SG Exam Guidelines distributed to industry on 10/22/01
- Contains information presented to the staff in August
- Addresses approximately 700 industry and NRC comments
  - Data quality
  - Qualified techniques
  - Cycle length
- Comments on new draft requested by 12/18/01
- Draft provided to the NRC after current review

### Length

- Industry proposal for inspection interval controls includes a specific limit as a function of tubing material ("X/Y/Z")
- Industry documenting the basis for inspection intervals – expected completion by end of the year
- Will propose specific limits for the commitment after the basis is documented and industry comments are dispositioned

### Regulatory Controls

#### NRC proposal for inspection interval controls

- Summary:
  - Admin TS
    - Controls changes similar to the controls on Performance Criteria
  - Prescriptive interval lengths:
    - Maximum length of 2 RFO
    - Inspect at least one SG every time
- Concerns:
  - Does not specifically address improved materials and designs
  - No flexibility to incorporate new knowledge – implies NRC endorsement of Guideline inspection interval requirements
  - NRC approval process is excessively long

#### Industry proposal for inspection interval controls

- Summary
  - Licensee commitment to a maximum inspection interval
  - Licensee commitment to provide NRC a report establishing the basis for a longer inspection interval one year in advance of exceeding the committed interval

# Generic License Change Package Issues

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- Licensee will not change the notification commitment without prior NRC knowledge
- Inspection intervals determined by the SG Program as required by the SG Tube Integrity and Admin TS
- Advantages
  - Provides a path to approval of the GLCP - an improvement over existing regulatory controls
  - Broad industry support
  - Allows for differences in SG tubing materials
  - Maintains industry control over SG Program requirements – no NRC endorsement of Guidelines
  - Maintains ability to incorporate industry experience and new knowledge
  - NRC resources and reviews can be concentrated where needed
  - NRC can control specific instances through the Order process

## 2. Generic License Change Package Changes

Industry reviewed the July GLCP version resulting from the NRC comments. One significant comment

### Structural Integrity safety factors

- NRC comments on the SG Tube Integrity TS Bases:
  - That 1.4 safety factor against Burst applies under “**all design basis accidents, including any additional loading combinations required by existing design and licensing basis.**” and
  - “The Structural Integrity Criterion requires that the tubes not Burst when subjected to differential pressures equal to three (3) times those experienced during normal steady state **full power** operation and 1.4 times accident **loading** combinations included **in** the design and licensing basis.”
- Plant design basis and NSSS reports indicate that the application of the 1.4 safety factor does not appear to be consistent with this requirement. For example:
  - W – Structural integrity criterion would require safety factor to be applied to Level C transients
  - FTI – Criterion would require applying safety factor to secondary stresses (thermal loads)
- Industry is developing a White Paper to summarize the existing design and licensing basis and support a revision to the July version of the GLCP

# Generic License Change Package Issues

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## 3. Next Steps

### Industry actions:

- Submit SG Exam Guidelines, rev 6 to NRC
- Submit basis for longer inspection intervals to the NRC
- Submit specific inspection interval limits for licensee commitment in the GLCP
- Submit basis for application of 1.4 safety factor to NRC
- Submit revised GLCP to the NRC

### NRC Actions:

- Review industry proposal for SG cycle lengths
- Provide feedback on the application of the 1.4 safety factor

## 4. Meeting Planning

### SGTF / NRC Meeting

Date - ?

### Senior Management Meeting

Need - ?

Date - 11/20 PM, 11/28 AM ?

### ACRS Subcommittee Briefing – November 29<sup>th</sup>

Topics covered - ?

### NEI Licensing Information forum – November 27<sup>th</sup>

Topics covered - ?

### Commissioner briefing – December 3<sup>rd</sup>

Topics covered - ?

Industry support - ?

**Template for a Plant Specific License Amendment  
Cover Letter**

**Revision to NRC Submittal  
July 2001**

**Text in bold blue underlined font indicates a change from the previous version of the Steam Generator Generic License Change Package sent to the NRC in December 2000.**

[Month Day, 2002]

U.S. Nuclear Regulatory Commission  
Washington, DC 20555

**ATTENTION:** Document Control Desk

**SUBJECT:** [Plant, Docket Number]  
License Amendment Request: Revision to Steam Generator  
Technical Specifications

**REFERENCES:**

Pursuant to 10 CFR 50.90, [Licensee] hereby requests an amendment to Operating License Number [DPR-XX] to incorporate the changes described below into the Technical Specifications for [Plant].

The proposed amendment **adds a technical specification for Steam Generator Tube Integrity [3.4.20] as a replacement for** the steam generator Technical Specification [3.4.6] and revises the Technical Specifications for RCS Operational Leakage [3.4.13], Steam Generator Tube Surveillance Program [5.5.9], and Steam Generator Tube Inspection Report [5.6.10].

The proposed amendment is necessary in order to implement the requirements of the Industry Initiative on NEI 97-06, Steam Generator Program Guidelines. The proposed changes reflect the results of a series of meetings between the NRC Staff and The Nuclear Energy Institute's Steam Generator Task Force.

This amendment request provides a programmatic framework for monitoring and maintaining the integrity of the steam generator tubes consistent with Appendices A and B to 10 CFR Part 50 and [Plant's] licensing basis. This framework includes performance criteria that, if satisfied, provide reasonable assurance that tube integrity is being maintained consistent with the licensing basis. In addition, this framework provides for monitoring and maintaining the tubes to provide reasonable

assurance that the performance criteria are met at all times between scheduled inspections of the tubes.

### **DESCRIPTION OF PROPOSED CHANGE**

Steam generator Technical Specification [3.4.6] is deleted by this request. The requirements of Technical Specification [3.4.6] are revised and relocated into a **Steam Generator Tube Integrity Technical Specification [3.4.20]**. **This new Technical Specification and its Bases** defines the approved steam generator performance criteria, repair criteria, and repair methods and establishes actions that would be necessary should the performance criteria not be met. Changes to the **Steam Generator Tube Integrity Technical Specification Bases** will be governed by the requirements of 10 CFR 50.59.

Surveillance requirement 3.4.20.1 refers to the Steam Generator Program for its frequency. In addition to Steam Generator Program frequency requirements, [Plant] commits to conducting required steam generator inspections of tubing and/or sleeves at an interval not to exceed [X (600 MA) / Y (600 TT / 800) / Z (690 TT)]. If [Plant] intends to exceed this interval, a special report documenting the basis for the next inspection interval will be submitted to the NRC within 90 days after the start of the last refueling cycle prior to exceeding the committed inspection interval. In no case will this report be submitted less than [one year] prior to exceeding the commitment. [Plant] will not change this commitment without prior notification to the NRC.

Technical Specifications [3.4.13, 5.5.9, and 5.6.10] are revised as described below.

The changes to the Operational Leakage Technical Specification reduce the allowable leakage from any one steam generator to [150 gallons per day] and reference the plant's Steam Generator Program described in Technical Specification [5.5.9] for the surveillance requirements necessary to verify **primary-to-secondary leakage**. The proposed amendment also deletes the existing LCO 3.4.13.d since it is enveloped by the revised LCO and revises the Conditions and Surveillances to clarify the requirements related to primary-to-secondary leakage.

The changes to Administrative Technical Specification [5.5.9], **Steam Generator Program**, require the implementation of a Steam Generator Program **and identify several key elements of the Program: condition monitoring, steam generator performance criteria, alternate repair criteria, and repair methods**. The change removes the detailed inspection requirements from the Technical Specifications and replaces them with the essential elements of a program. In addition, this section defines the approval process for revising the performance criteria, tube repair criteria and repair methods.

Finally, the change to Technical Specification [5.6.10] defines the requirement for, and contents of the steam generator tube inspection report. The existing requirement for a twelve month report is changed to a 120 day report, submitted only if the number of tubes exceeding the repair criteria during scheduled inservice inspections exceeds 1 percent of those inspected.

The content of the Steam Generator Program as discussed in this submittal is critical to the satisfactory maintenance of steam generator tube integrity. [Plant's] Steam Generator Program will meet the intent of the guidance provided in the Steam Generator Integrity Elements section of NEI 97-06, Steam Generator Program Guidelines, as it may be revised from time to time. The basis for any deviations from the intent of NEI 97-06 or its referenced EPRI guideline documents will be documented internally as part of the program implementation. This approach will be documented as a commitment in [Plant's] [Commitment Tracking System].

This proposed revision will enhance the safety function of the steam generators by increasing the probability that the integrity of the steam generator tubes will be maintained between scheduled inservice inspections.

### **REQUESTED CHANGES**

**Delete technical specification [3.4.6].** Revise Technical Specifications [3.4.13, 5.5.9, and 5.6.10] as shown in the attached marked-up Technical Specifications pages in Enclosure X. **Add the Steam Generator Tube Integrity Technical Specification [3.4.20] in Enclosure Y.**

### **SCHEDULE**

Approval of the proposed technical specification amendment is requested by [MM/YY] in order to allow implementation of the associated requirements for scheduled refueling outages after [MM/YY].

### **ASSESSMENT AND REVIEW**

[Licensee] has evaluated the significant hazards considerations associated with the proposed license amendment, as required by 10 CFR 50.92, and has determined that there are none (see Enclosure (2) for a complete discussion). [Licensee] has also determined that operation with the proposed changes will not result in any significant increases in the amounts of any effluents that may be released offsite, and no significant increases in individual or cumulative occupational radiation exposure. Therefore, the proposed amendment is eligible for categorical exclusion as set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is needed in connection with the

approval of the proposed change. The [Plant Operations and Safety Review Committee] has reviewed this proposed amendment and concurs that operation with the proposed modification will not result in an undue risk to the health and safety of the public.

Should you have any questions regarding this matter, we will be pleased to discuss them with you.

Very Truly Yours,

Enclosures: ( ) Summary Description and Safety Analysis  
( ) Determination of Significant Hazards  
( ) Technical Specification Marked-up Pages  
( ) Steam Generator Tube Integrity Technical Specification

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
MATERIALS AND METALLURGY SUBCOMMITTEE  
NEI 97-06, "STEAM GENERATOR PROGRAM GUIDELINES"  
NOVEMBER 29, 2001  
ROCKVILLE, MARYLAND

- PROPOSED AGENDA -

	<u>TOPIC</u>	<u>PRESENTER</u>	<u>TIME</u>
I.	Opening Remarks	P. Ford, ACRS	5 min. 8:30-8:35 a.m.
II.	Introductory Remarks History of staff reviews	E. Sullivan, NRR	10 min. 8:35-8:45 a.m.
III.	NEI Presentation	J. Riley, NEI	40 min. 8:45-9:25 a.m.
	A. NEI Generic Change Package (GCP)		
	B. NEI 97-06		
IV.	Concerns With GCP and NEI 97-06	NRC Staff	35 min. 9:25-10:00 a.m.
	<b>BREAK</b>		15 min. 10:00-10:15 a.m.
V.	Staff Presentation (Cont.)	NRC Staff	55 min. 10:15-11:20 a.m.
	A. Proposed resolutions		
	1. Inspection intervals		
	2. Regulatory Controls		
	B. Status and Plans		
VI.	NEI Status	J. Riley, NEI	10 min 11:20-11:30 a.m.
VII.	Discussion	P. Ford, ACRS	30 min. 11:30-12:00 noon
VIII.	Adjournment	P. Ford, ACRS	12:00 noon

NOTE:

Presentation time should not exceed 50 percent of the total time allotted for specific item. The remaining 50 percent of the time is reserved for discussion.

Number of copies of the presentation materials to be provided to the ACRS - 25