

**TSTF-510 Comment Resolution – As of 1-7-09**

Date/Source	Comment	Resolution
11/3/08 NRC	1. We understand that for several items you are still working on them/considering them. Regarding TS 5.5.9.a (“...are inspected, plugged, [or repaired]...”), if this is the standard format for an “optional” list and the NRC has accepted it, we have no issue with it. However, based on my experience with TSTF-449, there may need to be some industry training on this formatting scheme (given that several utilities did not do it correctly). Regarding TS 5.5.9.d.1, although this is intended for use with operating reactors, these NUREGs are being used as a guide for new reactors. As a result, it would be beneficial to change the wording (i.e., replacement) to make it equally applicable to currently operating and new reactors.	Added discussion of bracketed references to "repair" to the Background section of the justification. Changed SG replacement to SG installation.
	2. Under the 600TT and 690TT inspection frequencies (5.5.9.d.2.a), inservice inspection” should be replaced with “refueling outage” to be consistent with 5.5.9.d.1.	Change included.
	3. In TS 5.5.9.d.2 (for 600TT and 690TT), the reference to “period” doesn’t read correctly (especially 5.5.9.d.2.c). One way to address this may be to reword 5.5.9.d.2.a for 600TT to read, “After the first refueling outage, inspect 100% of the tubes during the next 120 effective full power months.” This change would require replacing the term “period” in 5.5.9.d.2 with inspection interval (or some similar term). Another possible way of addressing this may be to add a sentence after 5.5.9.d.2.a, b, and c (after removing the word “period” in the 1 <sup>st</sup> sentence) that read: This constitutes the first inspection period. This constitutes the second inspection period. This constitutes the third and subsequent inspection periods.	The alternate approach suggested in the later part of this comment was included. "Interval" is already used repeatedly to refer to the limit between two consecutive inspections.
	4. The following sentence could cause implementation problems since inspection plans may change: “If the assessment of degradation indicates the possibility that tubes may be susceptible to new types of flaws or that new locations may be susceptible to flaws at the next inspection, the number of inspections for that specific type of flaw or that specific location in that period [inspection interval] may be prorated based on a ratio of the number of planned SG inspection outages remaining in that period [inspection interval] to the total number of (previously planned and executed and remaining) SG inspection outage in that period [inspection interval].” One possible way to address this may be to add a sentence that indicates that: “This prorating shall result in the fraction of tubes/locations inspected at the conclusion of the inspection interval [period] for each flaw type/location being equal to the ratio of the number of inspections performed subsequent to the determination that a new flaw type may occur or that new locations may be susceptible to flaws divided by the total number of inspections performed in that inspection interval [period].”	The suggested additional sentence was included. The use of “period” was retained because interval is used to refer to the limit between two consecutive inspections.

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	2. 5.5.9.b.1 should be modified to remove the extra “and.” Suggest modifying as follows: “...hot standby, <del>and</del> cool down, and all anticipated transients included.....”	We corrected the sentence by placing the closing parens in the correct location and deleting the extra "and"
	3. 5.5.9.c could be misinterpreted that flaws (more than one) must be present in the tube before the repair criteria applies. Suggest modifying as follows: “Tubes found by inservice inspection to contain a flaw or flaws with a depth equal to or exceeding [40%] of the .....”	Revised the sentence to state "one or more flaws with ..."
	4. 5.5.9.d.1 should be modified to reflect that new plants will not have “replaced” their steam generators. To correct this, 5.5.9.d.1 could be modified to read: “Inspect 100% of the tubes in each SG during the first refueling outage following SG installation. For the purposes of this specification, replacement of a steam generator shall be considered installation.”	Incorporated.
	5. 5.6.9.h should not be in brackets (since some plants, who are not authorized to repair the tubes, have taken action under 50.59 that result in a reduction of flow through the tubes). Given the similarity between 5.6.9.f and 5.6.9.h, suggest rewording 5.6.9f to indicate the following and deleting 5.6.9.h: “The number and percentage of tubes plugged [or repaired] to date, and the effective plugging percentage in each steam generator,”	Incorporated
	6. The proposal does not address the prorating of samples. Discuss your plans to modify the proposal to address this issue.	Provisions for prorating samples are included in the file for Traveler.
	7. 5.5.9.d.2. For clarity suggest rewording as follows: <u>600 MA</u> - After the first refueling outage, inspect each SG at least every 24 effective full power months or every refueling outage (whichever results in more frequent inspections). In addition, inspect 100% of the tubes in each SG every 60 effective full power months. Changed “inservice inspection” to “refueling outage” since 5.5.9.d.1 is in terms of refueling outages. Changed “one refueling outage” to “every refueling outage” and modified the parenthetical expression since effective full power months reflect a “time	The suggested changes were included in the draft Traveler.

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	<p>interval” and “one refueling outage” is an “event”.</p> <p><u>600 TT</u> - After the first refueling outage, inspect each SG at least every 48 effective full power months or every other refueling outage (whichever results in more frequent inspections). In addition, the minimum number of tubes inspected at each scheduled inspection shall be the number of tubes in all SGs divided by the number of SG inspection outages scheduled in each period as defined in a, b, and c below. Each inspection period defined below may be extended up to 3 effective full power months provided that the cumulative effect of such extensions does not exceed 12 effective full power months over the lifetime of the steam generator.</p> <p>Made similar changes as for 600MA. Changed “sample size” to “number of tubes” for clarity. Similarly, for clarity, specified that it must be the number of tubes in “all” SGs divided by the number of planned “SG outages”. For clarity, specified that the 12 effective full power months is for the lifetime of the steam generator. The last sentence does not appear to be needed.</p> <p><u>690 TT</u> - Changes similar to 600TT should be made.</p>	
	<p>8. The end point for several sequential periods was modified. Please clarify the reason for modifying these end points.</p>	<p>Revised the Traveler justification to discuss the modification of these end points in more detail.</p>
	<p>9. The term "active" should be removed from TS 5.6.9.b and TS 5.6.9.e.</p>	<p>Incorporated</p>