NRR-PMDAPEm Resource

From: Honcharik, Michelle
Sent: Thursday, February 04, 2010 3:48 PM
To: Brian Mann
Subject: TSTF-510 RAIs
Attachments: RAIs for TSTF-510.doc

Brian,

Please see attached draft RAIs for TSTF-510. Please review and advise if you need a phone call to discuss them.

Regards,

Michelle C. Honcharik
Senior Project Manager
US Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Policy and Rulemaking

Office location: O-12C14
Mail stop: O-12D3
301-415-1774
michelle.honcharik@nrc.gov

Hearing Identifier: NRR_PMDA
Email Number: 5

Mail Envelope Properties (Michelle.Honcharik@nrc.gov20100204154800)

Subject: TSTF-510 RAIs
Sent Date: 2/4/2010 3:48:15 PM
Received Date: 2/4/2010 3:48:00 PM
From: Honcharik, Michelle

Created By: Michelle.Honcharik@nrc.gov

Recipients:
"Brian Mann" <brianm@excelservices.com>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	466	2/4/2010 3:48:00 PM
RAIs for TSTF-510.doc	43006	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

REQUEST FOR ADDITIONAL INFORMATION

TECHNICAL SPECIFICATIONS TASK FORCE TRAVELER TSTF-510, REVISION 0, "REVISION TO STEAM GENERATOR PROGRAM INSPECTION FREQUENCIES AND TUBE SAMPLE SELECTION" (TAC NO. ME2231)

By letter dated March 26, 2009, the Technical Specifications Task Force (TSTF) submitted TSTF-510, Revision 0, "Revision to Steam Generator Program Inspection Frequencies and Tube Sample Selection," for the U.S. Nuclear Regulatory Commission (NRC) staff review.

1. The Table on page 5 of 20 states that a 20% minimum sample size of all the tubes is part of the current licensing basis and would continue to be part of the licensing basis under the proposed changes. The staff notes that under both the current and revised technical specification (TS), there appears to be no requirement for a minimum 20% sample, particularly if the steam generators (SGs) are being inspected at each refueling outage over inspection periods of 96, 120 and 144 months. Please clarify this apparent discrepancy. Discuss whether a 20% minimum sample size, consistent with the Electrical Power Research Institute (EPRI) SG Inspection Guidelines, should be included as part of the proposed changes.

2. Page 16 of 20, Section 3: Steam Generator Tube Inspection Report, describes the reason for the proposed changes to paragraphs f and h in TS 5.6.7, "Steam Generator Tube Inspection Report," stating that, "Some plants are not authorized to repair tubes but can take action under Title 10 of the *Code of Federal Regulations* (10 CFR) 50.59 that results in a reduction of flow through the tubes. The NRC requested that all plants report the effective plugging percentage so that they may be aware of such changes." Discuss whether there is a need to add words to the TS BASES that the reporting requirement on effective plugging percentage is intended, in part, to capture the effects of reduced flow through the tubes from actions taken under 10 CFR 50.59.

3. Under the current TSs, tubes failing to meet the "SG tube repair criteria" shall be "plugged [or repaired]." The proposal to replace the words "repair criteria" with "plugging [or repair criteria]" may create confusion for plants with alternate tube repair criteria. Plants with alternate tube repair criteria often plug tubes that fail to meet these criteria. Why has no proposal been made to change "alternate tube repair criteria" to "alternate tube plugging [or repair] criteria" for consistency? An alternative approach would be to redefine "repair" as including any action, including plugging, to restore the integrity of the primary to secondary pressure boundary. This definition could be included in the TS BASES. In addition, TS 5.5.9.f could be revised as follows:

   "[f. Provisions for SG tube repair methods **other than plugging**. Steam generator tube repair methods **other than plugging** shall provide the means to reestablish the reactor cooling system pressure boundary integrity of SG tubes without removing the tube from service. ~~For the purposes of these Specifications, tube plugging is not a repair.~~ All acceptable tube repair methods **other than plugging** are listed below.

   ----------REVIEWER'S NOTE----------
   Tube repair methods currently permitted by plant technical specifications **other than plugging** are to be listed here. The description of these tube repair methods should be equivalent to the descriptions in current technical specifications. If there are no approved tube repair methods **other than plugging**, this section should not be used.

---

1. . . .]

Another approach would be to define “alternative repair methods to plugging” in TS 5.5.9.f. Either approach would eliminate the need for the current proposal to replace the words “repair criteria” with “plugging [or repair criteria].”

Describe any planned revisions to the current proposal to replace the words “repair criteria” with “plugging [or repair criteria].”

4. The proposed changes include replacing the word “flaw” in TS 5.5.9.d and the word “indications” in TS 5.6.7 with the word “degradation.” Use of word “indication” in TS 5.5.9.d.3 would be left unchanged. The staff notes that the word “degradation” is defined in the EPRI SG Examination Guidelines as “a reportable indication 20% TW or greater or 50% of the repair limit for length-based or voltage-based criteria.” This appears to the staff as a more restrictive definition than either “flaws” or “indications.” In particular, degradation assessments should assess the potential for flaws irrespective of whether such flaws might meet the guideline definition of degradation. In addition, the staff believes that the reporting requirements in TS 5.6.7.d should be applicable to all detected flaw indications, irrespective of size. Please address this concern and whether any clarifications on the definition of degradation to the proposed TS or BASES are needed.

5. Pages 5.5-7, 5.5-9 (2 places); proposed TS 5.5.9.d.2, first sentence - Consistent with the current requirement, the staff believes it is important to clarify this sentence to emphasize that it is a minimum requirement, since operational assessment may indicate the need for even more frequent inspections. Describe any planned revisions to the proposed first sentence to incorporate such a clarification. One approach, for example, is to insert the underlined words below into the sentence.

   “After the first refueling outage following SG installation, inspect each steam generator <u>at a minimum of</u> every [ ] effective full power months or every [ ] refueling outage (whichever results in more frequent inspections).”

6. Page 5.5-7; proposed TS 5.5.9.d.2, second sentence - This sentence needs clarification in a manner consistent with the current requirement to ensure unambiguous interpretation. This sentence needs to make clear that the “60 effective full power months” is the “inspection period” referred to in later sentences, that these inspection periods are sequential, and that the first sequential period begins with the first refueling outage following SG installation. Describe any planned revisions to the proposed second sentence to incorporate such clarifications. One approach, for example, is to replace the proposed second sentence with words similar to the existing requirement, as follows:

   “In addition, inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first refueling outage inspection following SG installation.”

7. Pages 5.5-7, 5.5-9 (2 places); proposed TS 5.5.9.d.2, third sentence - This sentence needs clarification to ensure unambiguous interpretation. The introductory clause of this sentence does not clearly define the situation the sentence is intended to address. That situation can

be more explicitly expressed as, “Should a degradation assessment indicate the potential for a type of degradation at a location not previously inspected with a technique capable of detecting degradation of that type at that location and that may that may satisfy the applicable tube repair criteria.” The proposed sentence uses the expression “degradation mechanism” rather than using “type of degradation” consistent with the language in TS 5.5.9.d. However, “degradation mechanism” is used in TS 5.5.9.d.3 and TS 5.6.7.b and c. Either expression seems appropriate, but one expression should be used throughout the technical specification for consistency. Also, use of the word “new” as in “new degradation mechanism” is ambiguous with respect to whether the mechanism is new to the location, new to the overall SG or plant, or new industry-wide. Describe any planned revisions to the proposed third sentence to address the staff’s concerns. One acceptable approach, for example, is to replace the proposed second sentence with words similar to the existing requirement, as follows:

> “Should a degradation assessment indicate the potential for a type of degradation at a location not previously inspected with a technique capable of detecting degradation of that type at that location and that may that may satisfy the applicable tube repair criteria, the minimum number of tube inspections at this location with such an inspection technique over the inspection period may be prorated from 100% of the tube population by the ratio of the number of SG inspection outages performed during the portion of the inspection period subsequent to the initial degradation assessment indicating the potential for that degradation type at this location divided by the total number of SG inspection outages performed in that inspection period.”

8. Page 5.5-7; proposed TS 5.5.9.d.2, fourth sentence - As an editorial comment, this sentence should be relocated after the proposed second sentence. Describe any planned revision to the proposed TS 5.5.9.d.2 to relocate this sentence.