

5.5 Programs and Manuals

5.5.8 Inservice Testing Program (continued)

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- b. The provisions of SR 3.0.2 are applicable to the above required Frequencies for performing inservice testing activities,
- c. The provisions of SR 3.0.3 are applicable to inservice testing activities, and
- d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

5.5.9 Steam Generator (SG) Program

This program provides controls to ensure that steam generator tube integrity is maintained. Steam generator tube integrity is maintained by meeting the performance criteria for structural integrity, accident induced LEAKAGE, and operational LEAKAGE. The program contains a balance of prevention, inspection, evaluation and repair, and leakage monitoring measures.

The program shall contain the following:

- a. Provisions for condition monitoring assessments to be conducted during each outage in which the steam generator tubes are inspected, plugged, or repaired.
- b. Steam generator performance criteria shall be based on steam generator tube structural integrity, accident induced LEAKAGE, and operational LEAKAGE.
 - 1. Steam generator tubing shall retain structural integrity by retaining a safety factor of 3.0 against burst under normal steady state full power operation and a safety factor of 1.4 against burst applied to design basis accidents under service level D.
 - 2. The primary to secondary accident induced LEAKAGE rate for design basis accidents, other than a steam generator tube rupture, shall not exceed [leakage rate assumed in the accident analysis] and [1 gpm per steam generator].
 - 3. Operational LEAKAGE performance criterion is specified in Specification 3.4.20, "Steam Generator Tube Integrity."

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- c. Steam generator tube repair criteria shall provide reasonable assurance that tubes left in service will meet the performance criteria at the next scheduled steam generator inspection. Tube repair criteria are

[1. ≥ 40 % nominal tube wall thickness.]

The methods used to determine the tube repair criteria shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. The licensee's Steam Generator Program will contain the complete identification for each of the TS referenced topical reports used (i.e., report number, title, revision, date, and any supplements).]

- d. Steam generator tube repair methods shall provide the means to reestablish the RCS pressure boundary integrity of steam generator tubes without removing the tube from service. For the purposes of these Specifications, tube plugging is not a repair.
- e. Steam generator tube inspection intervals shall be established based on the following:
- [1. Each steam generator with Alloy 600 mill annealed tubing shall be inspected each refueling outage.]
 - [2. No steam generator with Alloy 600 thermally treated tubing shall operate more than 48 effective full power months without being inspected.]
 - [3. No steam generator with Alloy 690 thermally treated tubing shall operate more than 72 effective full power months without being inspected.]

5.5.10 Secondary Water Chemistry Program

This program provides controls for monitoring secondary water chemistry to inhibit SG tube degradation and low pressure turbine disc stress corrosion cracking. The program shall include:

- a. Identification of a sampling schedule for the critical variables and control points for these variables,

5.6 Reporting Requirements

5.6.7 Post Accident Monitoring Report

When a report is required by Condition B or G of LCO 3.3.[3], "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

5.6.8 Tendon Surveillance Report

Any abnormal degradation of the containment structure detected during the tests required by the Pre-stressed Concrete Containment Tendon Surveillance Program shall be reported to the NRC within 30 days. The report shall include a description of the tendon condition, the condition of the concrete (especially at tendon anchorages), the inspection procedures, the tolerances on cracking, and the corrective action taken.]

5.6.10 Steam Generator Tube Inspection Report

If the results of the steam generator inspection indicate greater than 1% of the inspected tubes in any steam generator exceed the steam generator tube repair criteria specified in Specification 5.5.9, "Steam Generator Program," a report shall be submitted within 120 days after the initial entry into MODE 4 following completion of the inspection. The report shall include:

- a. The scope of inspections performed on each steam generator,
- b. Active degradation mechanisms found,
- c. Nondestructive examination techniques utilized for each degradation mechanism,
- d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,
- e. Number of tubes plugged or repaired during the inspection outage for each active degradation mechanism,
- f. Repair method utilized and the number of tubes repaired by each repair method,
- g. Total number and percentage of tubes plugged and/or repaired to date,
- h. The effective plugging percentage for all plugging and tube repairs in each steam generator, and
- i. The results of condition monitoring including the results of tube pulls and in-situ testing.

