

REPLACEMENT PAGES
TECHNICAL SPECIFICATIONS
APPENDIX A
(TSCRN 203)

5.6 Procedures, Programs and Manuals

5.6.2.10 OTSG Tube Surveillance Program (continued)

in the specific area of an OTSG are inspected with the inspection result classification and the corresponding action required as specified in Table 5.6.2-3. No credit will be taken for these tubes in meeting minimum sample size requirements. Degraded or defective tubes found in these areas will not be considered in determining the inspection results category as long as the mode of degradation is unique to that area and not random in nature.

The results of each bobbin coil sample inspection shall be classified into one of the following three categories:

-----NOTE-----
In all inspections, previously degraded tubes whose degradation has not been spanned by a sleeve must exhibit a significant increase in the applicable imperfection size measurement ($> +0.5V$ bobbin coil amplitude increase for S/N indications or $> 10\%$ further wall penetration for all other imperfections) to be included in the below percentage calculations.

<u>Category</u>	<u>Inspection Results</u>
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

(continued)

5.6 Procedures, Programs and Manuals

5.6.2.10 OTSG Tube Surveillance Program (continued)

4. Acceptance criteria:

a. Vocabulary as used in this Specification:

1. Tubing or Tube means that portion of the tube or sleeve which forms the primary system to secondary system pressure boundary.
2. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. S/N indications with a bobbin coil amplitude $< 0.9V$ are considered imperfections. Other eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may also be considered as imperfections.
3. Degradation means a service-induced cracking, wastage, wear, or general corrosion occurring on either inside or outside of a tube.
4. Degraded Tube means a tube containing a S/N indication with a bobbin coil amplitude $\geq 0.9V$ or other imperfection $\geq 20\%$ of the nominal wall thickness caused by degradation except where all such degradation has been spanned by the installation of a sleeve.
5. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.
6. Defect means an imperfection of such severity that it exceeds the plugging/sleeving limit except where the imperfection has been spanned by the installation of a sleeve. A tube containing a defect in its pressure boundary is defective. Any tube which does not permit the passage of the eddy-current inspection probe shall be deemed a defective tube.

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5.6 Procedures, Programs and Manuals

5.6.2.10 OTSG Tube Surveillance Program (continued)

7. Signal-to-noise (S/N) indication means an indication whose associated bobbin coil amplitude is < 5 times the background noise excluding indications located in the tube sheet regions or indications determined to be other than a volumetric morphology.
8. Plugging/Sleeving Limit means the imperfection depth at or beyond which the tube shall be restored to serviceability by the installation of a sleeve or removed from service because it may become unserviceable prior to the next inspection. The Limit for S/N indications is equal to a bobbin coil amplitude of 2.5V, an axial extent of 0.33 inches, or a circumferential extent of 0.6 inches. The Limit is equal to 40% of the nominal tube or sleeve wall thickness for other imperfections. No more than five thousand sleeves may be installed in each OTSG.

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5.6.2.10 OTSG Tube Surveillance Program (continued)

9. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a main steam line or feedwater line break, as specified in 5.6.2.10.3.c, above.
 10. Tube Inspection means an inspection of the entire OTSG tube as far as possible.
- b. The OTSG shall be determined OPERABLE after completing the corresponding actions (plug or sleeve all tubes exceeding the plugging/sleeving limit and all tubes containing through-wall cracks) required by Table 5.6.2-2 (and Table 5.6.2-3 if the provisions of Specification 5.6.2.10.2.d are utilized). Defective tubes may be repaired in accordance with the B&W process (or method) equivalent to the method described in report BAW-2120P.

5.6.2.11 Secondary Water Chemistry Program

This program provides controls for monitoring secondary water chemistry to inhibit steam generator 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;
- b. Identification of the procedures used to measure the values of the critical variables;

(continued)

5.7 Reporting Requirements

5.7.2 Special Reports (continued)

The following Special Reports shall be submitted:

- a. When a Special Report is required by Condition B or F of LCO 3.3.17, "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.
- b. Any abnormal degradation of the containment structure detected during the tests required by the 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.
- c. Following each inservice inspection of steam generator (OTSG) tubes, the number of tubes plugged and sleeved in each OTSG shall be reported to the NRC within 15 days.

The complete results of the OTSG tube inservice inspection shall be submitted to the NRC within 12 months following the completion of the inspection. The report shall include:

1. Number and extent of tubes inspected,
2. Location, bobbin coil amplitude, and axial and circumferential extent (if determined) for each S/N indication; and the location and percent of wall thickness penetration for each other indication of an imperfection, and
3. Identification of tubes plugged and tubes sleeved.

Results of OTSG tube inspections that fall into Category C-3 shall be reported to the NRC prior to resumption of plant operation. This report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.
