

3.0 **SURVEILLANCE REQUIREMENTS**

3.17 **Steam Generator Tubes (Continued)**

2. If two consecutive tube inspections following service under all volatile treatment conditions result in all inspection results falling into the C-1 category or if two consecutive tube inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the tube inspection interval may be extended to a maximum of once per 40 months.
3. The inspections of tube sleeves shall be configured to ensure that each individual tube sleeve is inspected at least once in 60 months, with the following exception: if the 60 month time frame falls during an operating cycle, completion of that cycle is acceptable prior to meeting this requirement.

(ii) **Increased Inspection Frequencies**

1. If results of the in-service inspection of the steam generator tubes conducted in accordance with Table 3-13 at 40-month intervals fall in Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until a subsequent inspection meets the conditions specified in Section 3.17(3)(i)2 above, at which time the interval can be extended to a 40-month period.
2. If results of the inservice inspection of tube sleeves conducted in accordance with Table 3-14 fall into Category C-3, the inspection frequency shall be increased such that 100% of the tube sleeves in the affected steam generator are inspected during subsequent inspections. The increase in inspection frequency shall apply until two consecutive tube sleeve inspections meet the conditions for Category C-1 or two consecutive tube sleeve inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, at which time the inspection frequency of Specification 3.17(3)(i)3 shall again apply.

(iii) **Unscheduled in-service inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Tables 3-13 and 3-14 during the shutdown subsequent to any of the following conditions:**

1. Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Section 2.1.4 of the Technical Specifications,
2. A seismic occurrence greater than the Operating Basis Earthquake,

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3. A loss-of-coolant accident requiring actuation of the engineered safeguards, or
4. A main steam line or main feedwater line break.

#### (4) Acceptance Criteria

- (i) As used in this specification:

Imperfection means an exception to the dimensions, finish or contour of a tube or sleeve from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube or sleeve wall thickness, if detectable, may be considered as imperfections.

Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube or sleeve.

Degraded Tube or Sleeve means a tube or sleeve containing imperfections  $\geq 20\%$  of the nominal wall thickness caused by degradation. Any tube which does not permit the passage of the eddy-current inspection probe through its entire length and U-bend shall be deemed a degraded tube. Any tube sleeve which does not permit the passage of the eddy current inspection probe through its entire length shall be deemed a degraded sleeve.

% Degradation means the percentage of the tube or sleeve wall thickness affected or removed by degradation.

Defect means an imperfection of such severity that it exceeds the plugging or repair limit.

Plugging or Repair Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging or repaired by sleeving in the affected area because it may become unserviceable prior to the next inspection. Plugging or repair limit is equal to 40% of the nominal tube wall thickness for the original tube wall. Sleeved tubes shall be plugged upon detection of unacceptable degradation in the pressure boundary region of the sleeve.

Unserviceable describes the condition of a tube or sleeve if it leaks in excess of analyzed limits 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 steam line or feedwater line break.

Tube or Tubing means that portion of the tube which forms the primary system to the secondary system pressure boundary.