

Docket No. 50-336

Attachment 1

Millstone Nuclear Power Station, Unit No. 2
Proposed Revisions to Technical Specifications
Steam Generator Inspections

September, 1983

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REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.5.1.4 Acceptance Criteria

a. As used in this Specification

- i. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.
2. Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.
3. Degraded Tube mean a tube containing imperfections $\geq 20\%$ of the nominal wall thickness caused by degradation.
4. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.
5. Defect means an imperfection of such severity that it exceeds the plugging limit. A tube or sleeve containing a defect is defective.
6. Plugging Limit means the imperfection depth at or beyond which the tube or sleeve shall be repaired because it may become unserviceable prior to the next inspection and is equal to 40% of the nominal tube or sleeve wall thickness.
7. 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 steam line or feedwater line break as specified in 4.4.5.1.3.c, above.
8. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U - Bend to the top support of the cold leg.
9. Accessible tubes refers to tubes in the steam generator which are readily inspectable by eddy current probe mechanical positioning equipment. A tube that is temporarily blocked to the positioning equipment or was omitted from the inspection pattern may be classified as inaccessible in accordance with the provisions of Action C-3 of Table 4.4-6.

- b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug or sleeve all tubes exceeding the plugging limit and plug all defective sleeves) required by Table 4.4-6.

TABLE 4.4-5

MINIMUM NUMBER OF STEAM GENERATORS TO BE
INSPECTED DURING INSERVICE INSPECTION

Preservice Inspection	Yes
No. of Steam Generators per Unit	Two
First Inservice Inspection	One
Second & Subsequent Inservice Inspections	One ¹

Table Notation:

1. The inservice inspection may be limited to one steam generator on a rotating schedule encompassing 3 N % of the tubes (where N is the number of steam generators in the plant) if the results of the first or previous inspections indicate that all steam generators are performing in a like manner. Note that under some circumstances, the operating conditions in one or more steam generators may be found to be more severe than those in other steam generators. Under such circumstances the sample sequence shall be modified to inspect the most severe conditions.

TABLE 4.4-6

STEAM GENERATOR TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of 5 Tubes per S. G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Repair defective tubes and inspect additional 25 tubes in this S.G.	C-1	None	N/A	N/A
			C-2	Repair defective tubes and inspect additional 45 tubes in this S.G.	C-1	None
					C-2	Repair defective tubes
			C-3	Perform action for C-3 result of first sample	C-3	Perform action for C-3 result of first sample
	C-3	Inspect all accessible tubes in this S. G., repair defective tubes and inspect 25 tubes in each other S.G.* See Note 1. Prompt notification to NRC pursuant to specification 6.9.1			N/A	N/A
		All other S. G.s are C-1	None	N/A	N/A	
		Some S. G.s C-2 but no additional S. G. are C-3	Perform action for C-2 result of second sample	N/A	N/A	
		Additional S. G. is C-3	Inspect all accessible tubes in each S.G and repair defective tubes*. Prompt notification to NRC pursuant to Specification 6.9.1. See Note 1.	N/A	N/A	

$S = 3 \frac{N}{n} \%$ Where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection

*Repair of defective tubes shall be limited to plugging with the exception of those tubes which may be sleeved. Tubes with defective sleeves shall be plugged.

Table 4.4-6
Table Notation

1. Tubes required to be inspected pursuant to Action C-3 which are inaccessible but located in areas where imperfections were found during the most recent inspection, shall be inspected or repaired. Inaccessible tubes located in areas where experience has indicated no problems exist may be excluded from the inspection pattern performed pursuant to Action C-3 provided that no more than 0.5 percent of all tubes in the steam generator fall into this category.