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DominionSM

OCT 7 2002

Docket No. 50-423
B18779

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Power Station, Unit No. 3
Steam Generator Tube Plugging

This special report is being submitted pursuant to the requirements of Plant Technical Specifications 4.4.5.5.a and 6.9.2. Plant Technical Specification 4.4.5.5.a requires that a special report be submitted to the commission within 15 days following completion of each inservice inspection of the steam generator tubes, to document the number of tubes plugged.

The eddy current inspections conducted at the end of cycle 8, were completed on September 22, 2002. The attached tables summarize the number of tubes examined and identify tubes removed from service as a result of the examination. The scheduled inspections were performed in Steam Generators A and C. All operational tubes within these steam generators, a total of 11,218 (approximately 50 percent of the total population of tubes), were inspected with bobbin probes. Additionally, an augmented sample (8,601 tube locations) was inspected utilizing rotating probes incorporating plus point coils. The plus point probe provides superior detection of both circumferential and axial cracks, and has been qualified per the PWR S/G Examination Guidelines, Appendix H, for the detection of cracking mechanisms. The rotating probe inspections were performed in areas of special interest including hot leg expansion transitions, low row u-bends, and dents as well as locations where the bobbin probe response was ambiguous. The 8,601 tube sample also included a scope expansion at top-of-tubesheet locations in the hot and cold legs triggered by loose part wear.

Eddy current testing identified flaws greater than or equal to the plugging limit in five (5) tubes. The plugging limit is defined within Technical Specifications as an imperfection depth of 40 percent nominal tube wall thickness or greater. Additionally, tubes were removed from service on a discretionary basis. In total, the following tubes were plugged:

- Seven tubes exhibiting anti-vibration bar (AVB) wear greater than 36 percent throughwall.
- Two tubes with loose part wear (single volumetric indications or SVIs) greater than the plugging limit.

A001

- One tube with an obstruction not allowing the insertion of a probe which would provide sufficient eddy current fill factor.
- One tube with an SVI and in contact with an adjacent, lodged loose part. Although only minor tube damage has occurred, the damaged tube was stabilized and plugged. A Framatome Stabilizer was utilized to increase the damping of the tube, thereby reducing flow induced vibration, and also to prohibit interaction with adjacent tubes in the unlikely event of a complete severance.

All tubes were removed from service by the installation of Framatome Alloy 690 Rolled Mechanical Tube Plugs on September 21 and 22, 2002.

The inspection results from both Steam Generators A and C were classified as C1 with respect to AVB wear. Steam Generator C results were also classified as C1 with respect to loose part wear. The inspection results from Steam Generator A were classified as C2 due to loose part wear. Consistent with NEI 97-06 Guidelines and the Millstone Steam Generator Program, a 20% expansion was performed at top-of-tubesheet locations in both the hot and cold legs of Steam Generator A to address the C2 resulting from loose part wear. This expansion exceeds the Technical Specification scope expansion requirements for a C2 result.

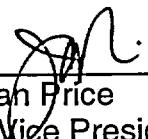
The complete results of the steam generator tube inspection will be submitted within 12 months in accordance with Technical Specification 4.4.5.5.b.

There are no commitments contained within this letter.

Should you have any questions regarding this submittal, please contact Mr. David W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.



J. Alan Price
Site Vice President - Millstone

Attachment: (1) Steam Generator Tube Plugging 15 Day Report Tables

cc: H. J. Miller, Region I Administrator
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
Millstone Senior Resident Inspector

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Attachment 1

Millstone Power Station, Unit No. 3

Steam Generator Tube Plugging 15 Day Report Tables

Millstone Power Station, Unit No. 3
Steam Generator Tube Plugging 15 Day Report Tables

TABLE 1 - MILLSTONE 3 RFO8 ECT SUMMARY

	S/G A	S/G C	TOTAL
Number of Tubes (SG A and C only)	5,626	5,626	11,252
Number of Tubes Inspected F/L w/Bobbin Probe	5,561	5,596	11,157
Number of Tubes Inspected w/Bobbin Probe in Hot Leg and Cold Leg Straight Sections Only (Row 1)	39	21	60
Number of Tubes Incomplete w/Bobbin Probe due to Obstruction	0	1	1
Number of Tube Inspections w/MRPC (Total)	5,483	3,118	8,601
•Hot Leg Transitions - Original Scope	2,985	2,855	5,840
•Hot Leg Transitions - Scope Expansion	1,134	0	1,134
•Row 1 and 2 U-Bends	121	121	242
•Hot Leg Misc. Special Interest - Diagnostic Exams and from Previous History (tubes)	95	98	193
•Cold Leg Transitions - Scope Expansion	1,129	35	1,164
•Cold Leg Misc. Special Interest - Diagnostic Exams and from Previous History (tubes)	19	9	28
Tubes with Max AVB Wear $\geq 40\%$	2	1	3
Tubes with Max AVB Wear $\geq 20\%$ but $< 40\%$	52	13	65
Tubes with Max AVB Wear $< 20\%$	58	6	64
Tubes with Max SVI $\geq 40\%$	2	0	2
Tubes with Max SVI $\geq 20\%$ but $< 40\%$	2	3	5
Tubes with Max SVI $< 20\%$	7	4	11
Tubes Plugged as a result of SVI $\geq 40\%$	2	0	2
Tubes Plugged as a result of AVB Wear $\geq 37\%$	6	1	7
Tubes Plugged as a result of an Obstruction	0	1	1
Tubes Plugged on a discretionary basis	0	1	1
Total Tubes Plugged as a Result of this Inspection	8	3	11

TABLE 2 - TUBES PLUGGED FOR AVB WEAR SIZED $\geq 40\%$ TW DURING RFO8

A S/G			C S/G		
ROW	COLUMN	% THROUGHWALL	ROW	COLUMN	% THROUGHWALL
35	58	41%	41	61	45%
50	64	40%			

TABLE 3 - DISCRETIONARY TUBES PLUGGED FOR AVB WEAR DURING RFO8

A S/G (ONLY)		
ROW	COLUMN	% THROUGHWALL
34	60	37%
42	99	38%
50	51	37%
51	63	37%

TABLE 4 - TUBES PLUGGED FOR SVI, OBS, OR PLP DURING RFO8

A S/G			C S/G		
ROW	COLUMN	INDICATION	ROW	COLUMN	INDICATION
4	122	SVI, 47%	1	4	SVI, PLP (preventive plug w/stabilizer)
10	116	SVI, 64%	1	115	OBS

TABLE 5 - TOTAL TUBES PLUGGED TO DATE

	S/G A	S/G B	S/G C	S/G D	TOTAL
Fabrication	1	2	2	0	5
Preservice	2	1	1	1	5
RFO1	1	0	0	1	2
RFO2	4	-	0	-	4
RFO3	-	0	-	5	5
RFO4	6	-	1	0	7
RFO5	-	1	-	10	11
MID CYCLE	-	-	2	-	2
RFO6	12	-	2	-	14
RFO7	-	0	-	51	51
RFO8	8	-	3	-	11
TOTAL	34	4	11	68	117