

From: Gregory Cranston
To: David Lew, Lawrence Doerflein
Date: Sat, Mar 25, 2000 12:58 PM
Subject: IP2 Steam Generator Tube Inspection Status

Attached is the latest information on the status of the SG tube inspections at IP2.

The three small leaks discovered in the 22SG during the secondary side hydro to 750 psig are in the outer rows (R44, C42; R45, C39; R45, C44) and are located at the tube to tube sheet fillet welds. These cracks would not have been seen using the Cecco testing done during the last tube inspection but were picked up this time using the RPC mid range +Probe at 300 KHz.

Insitu testing may not start until Tuesday after other eddy current testing is completed.

CC: Brian Holian, Michael Modes

Handwritten notes and markings at the bottom of the page include:
- A stamp that appears to say "ITEM #"
- The number "75" written below a horizontal line.
- The handwritten text "A/45" above the "75".
- A circled number "4" in the bottom right corner.

STEAM GENERATOR TUBE TESTING STATUS

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I. BACKGROUND

- A. Each steam generator (SG) has 3,260 tubes.
- B. The number of tubes currently plugged are:
1. SG21 - 313
 2. SG22 - 405
 3. SG23 - 301
 4. SG24 - 306

II. ITEMS OF NOTE

- A. The tube leak on SG24 was in Row 2, Column 5 and is currently reported as a 2" crack.
- B. The three new leaks discovered in SG 22 are in:
1. Row 44, Column 42
 2. Row 45, Column 39
 3. Row 45, Column 44
 4. The leak was estimated to be about a drop every several minutes.
 5. The 22SG has a reported leakage when operating at about 0.37 gpd.
 6. The location of the leak was the same on all three tubes and was at the tube to tube sheet fillet weld. The leaks were detected using the mid-range +Point probe at 300 KHz. Picked up using RPC but cannot see with Cecco.

III. TESTING STATUS

- A. The number of tests to be conducted and their status is as follows:

1. Cecco Inspection Program

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	3858	3746	3746	112	97.10%	112	
22	3837	3699	3699	138	96.40%	138	
23	3949	3827	3827	122	96.91%	122	
24	3943	3942	3942	1	99.97%	1	
Total	15587	15214	15214	373	97.61%	373	

2. Bobbin Inspection Program

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	4248	4109	4094	181	95.56%	175	

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22	4397	4156	4151	244	94.41%	241	
23	4520	4174	4174	346	92.35%	346	
24	4257	4257	4257	0	100.00%	0	
Total	17422	16696	16676	771	95.52%	762	

3. U-Bend +Point Inspection

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	248	226	226	22	91.13%	22	
22	184	159	159	25	86.41%	25	
23	208	204	204	4	98.08%	4	
24	227	173	173	54	76.21%	54	
Total	867	762	762	105	87.89%	105	

4. B&W Roll Plug Inspection

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	57	56	56	1	98.25%	1	
22	85	85	85	0	100.00%	0	
23	10	10	10	0	100.00%	0	
24	42	42	42	0	100.00%	0	
Total	194	193	193	1	99.48%	1	

5. Special Interest +Point Inspection

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	180	0	0	0	0.00%	180	
22	201	0	0	0	0.00%	201	
23	128	0	0	0	0.00%	128	
24	137	137	136	1	99.27%	0	
Total	646	137	136	1	21.05%	509	

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6. Special Interest Re-roll Candidate Inspection

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	124	0	0	0	0.00%	124	
22	18	0	0	0	0.00%	18	
23	852	0	0	0	0.00%	852	
24	52	52	0	0	0.00%	0	
Total	1046	52	0	0	0.00%	994	

7. All Programs Summary

SG	Tube Inspections	Tests Acquired	Tests Analyzed and Complete	Retests	Percent Complete	Total Remaining Inspections	Comments
21	8751	8137	8122	316	92.81%	614	
22	8722	8099	8094	407	92.80%	623	
23	9667	8215	8215	472	84.98%	1452	
24	8658	8603	8550	56	98.75%	55	
Total	35798	33054	32981	1251	92.13%	2744	