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December 11, 1980

Mr. Paul O'Connor, Project Mgr.
Operating Reactors Branch 5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Unit 1
Chemical Cleaning Solidification
Test Results
NRC Docket No. 50-10

Dear Mr. O'Connor:

Enclosed for your use is information pertaining to the July 9 and 10, 1980, field demonstration of the Dresden 1 chemical cleaning solidification system.

Attachment A outlines the final updated corrosion test results for t=0, t≥30 days, t≥60 days, and t≥90 days sampling intervals.

Attachment B contains the updated one year Barrel Metal Surveillance Test results based on weight loss. Attachment C presents the same test results based on material thickness.

This concludes the transmittal of data concerning the Dresden field demonstration of July 9 and 10, 1980.

Please address any questions concerning this matter to this office.

One (1) signed original and thirty-nine (39) copies of this transmittal are provided for your use.

Very truly yours,

Robert F. Janecek

Robert F. Janecek
Nuclear Licensing Administrator
Boiling Water Reactors

Enclosure

cc: RIII Inspector, Dresden
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"Attachment A"

Corrosion Test Results

Coupon #	Identification Code			Wall Thickness (inches)			% Corrosion*
				Point 1	Point 2	Mean Value	
1	00	Tp	1	.0475	.0485	.04800	-
2	00	Tp	2	.0470	.0480	.04750	-
3	00	Cr	1	.0440	.0460	.04500	-
4	00	Cr	2	.0440	.0450	.04450	-
5	00	Bm	1	.0450	.0450	.04500	-
6	00	Bm	2	.0445	.0465	.04550	-
7	30	Tp	1	.0470	.0480	.04750	1.04%
8	30	Tp	2	.0465	.0470	.04675	1.58%
9	30	Cr	1	.0435	.0440	.04375	2.77%
10	30	Cr	2	.0435	.0440	.04375	1.69%
11	30	Bm	1	.0440	.0440	.04400	2.22%
12	30	Bm	2	.0445	.0445	.04500	1.10%
13	60	Tp	1	.0465	.0470	.04675	2.60%
14	60	Tp	2	.0460	.0470	.04650	2.10%
15	60	Cr	1	.0430	.0440	.04350	3.33%
16	60	Cr	2	.0430	.0440	.04350	2.25%
17	60	Bm	1	.0435	.0445	.04400	2.22%
18	60	Bm	2	.0440	.0445	.04425	2.75%
19	90	Tp	1	.0460	.0470	.04650	3.13%
20	90	Tp	2	.0460	.0470	.04650	2.10%
21	90	Cr	1	.0435	.0440	.04375	2.78%
22	90	Cr	2	.0435	.0440	.04375	1.69%
23	90	Bm	1	.0440	.0445	.04425	1.67%
24	90	Bm	2	.0440	.0450	.04450	2.20%

* % Corrosion Determined Using the Following Equation:

$$\frac{\left(\left(\text{Control Sample Measurements}\right) - \left(\text{Sample Measurement at T-30, T-60 or T-90}\right)\right) \times 100 = \% \text{ Corrosion}}{\left(\text{Control Sample Measurements}\right)}$$

" ATTACHMENT B "

BARREL METAL SURVEILLANCE SAMPLES -- WEIGHT LOSS MEASUREMENTS

(Updated 10/1/80)

DOT Drum Samples Solidified in Spent NS-1 (4 pucks - 2 drum Sample/Puck)
Drum Samples - Drum DOT 17H Carbon Steel - External Painted

Solvent NS-1 -- 1050 PPM Fe 600 PPM Ni
Net Wt. Solvent 3,956 g
Boiled Down to 560 g (Factor of 7)

Sample No.	Contact Size	Painted Wt.g.	Corrected Weight (No Paint)	After Testing Wt.	Metal Loss, g.	Placed In Test	Removed From Test	Days Tested
1	1 15/16"	11.084	11.027	11.0119	0.051 (0.14%)	10/5/79	11/13/79	39
2	1 11/16"	11.780	11.719	11.7031	0.0159 (0.14%)	10/5/79	11/13/79	39
3	1 15/16"	11.316	11.258	11.249	0.0090 (0.08%)	10/5/79	5/22/80	229
4	1 11/16"	11.3389	11.2805	11.269	0.0115 (0.10%)	10/5/79	5/22/80	229
5	1 7/8"	11.446	11.387	11.3672	0.0198 (0.17%)	10/5/79	10/1/80	362
6	1 9/16"	10.5917	10.5372	10.5254	0.0118 (0.11%)	10/5/79	10/1/80	362

"ATTACHMENT C"

BARREL METAL SURVEILLANCE SAMPLES -- THICKNESS MEASUREMENTS

(Updated 10/1/80)

DOT Drum Samples Solidified in Spent NS-1 (4 pucks - 2 drum Sample/Puck)
Drum Samples - Drum DOT 17H Carbon Steel - External Painted

Solvent NS-1 -- 1050 PPM Fe PPM Ni
Net Wt. Solvent 3,956 g
Boiled Down to 560 g (Factor of 7)

Sample No.	Thickness, In.*		% Thickness Loss	Placed In Test	Removed From Test	Days Tested
	Unexposed	Imbeded				
1	0.0477	0.0477	-0.0	10/5/79	11/13/79	39
2	0.0477	0.0476	-0.21	10/5/79	11/13/79	39
3	0.0481	0.0476	-1.04	10/5/79	5/22/80	229
4	0.0479	0.0476	-0.63	10/5/79	5/22/80	229
5	0.0482	0.0480	-0.41	10/5/79	10/1/80	362
6	0.0475	0.0476	+0.21	10/5/79	10/1/80	362