

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 10, 1992

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Washington, D.C. 20555

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Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNIT 1
STEAM GENERATOR TUBE PLUGGING REPORT

North Anna Unit 1 recently completed its mid-cycle Steam Generator Tube Inspection outage. In accordance with Technical Specification 4.4.5.5.a, we are submitting this summary of the tube plugging activities performed during the outage.

Attachment 1 provides a listing of those tubes plugged during the outage including one previously plugged tube for which the cold leg plug was replaced. Attachment 2 provides a summary of the current plugging level of each steam generator.

If you have any further questions, please contact us.

Very truly yours,



W. L. Stewart

Senior Vice President - Nuclear

Attachments

pc: U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station

ADD 1

NORTH ANNA UNIT 1
MID-CYCLE O JTAGE 1992
STEAM GENERATOR "A" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
2	2	4	16
5	2	18	16
5	3	17	18
12	3	21	18
13	3	2	19
3	4	2	20
5	4	18	20
6	4	19	20
7	4	2	21
10	4	28	21
7	5	34	21
14	5	5	22
17	5	20	22
18	5	22	22
19	5	27	22
6	6	33	22
7	6	20	23
7	9	21	23
11	7	38	23
17	7	39	23
2	8	7	24
22	9	8	24
4	10	10	24
8	10	22	24
17	10	30	24
18	10	12	26
17	11	15	26
9	12	5	27
17	13	7	27
6	14	9	27
5	15	7	28
22	15	26	28

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "A" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
5	29	20	45
19	29	31	45
24	29	13	46
5	30	19	47
15	30	20	47
29	30	23	47
31	31	33	47
10	32	3	48
16	32	13	48
19	32	32	48
***24	33	46	48
36	33	2	49
4	35	10	49
18	35	32	50
13	36	33	50
11	38	45	50
28	38	38	51
18	39	42	51
40	39	46	51
34	40	8	52
38	40	44	52
41	40	22	53
42	40	11	54
44	40	32	54
4	41	37	54
12	41	39	54
39	41	46	54
5	42	3	55
7	42	25	55
9	42	7	56
34	42	15	56
*13	43	2	57

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "A" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
33	58	19	75
5	59	36	75
25	59	20	76
43	59	6	81
8	60	22	81
3	61	4	84
8	62	6	88
42	64	11	88
5	66	5	89
9	66	11	89
23	66	19	90
15	67	12	91
2	68	3	92
9	68	**7	92
5	70	**6	93
14	70	7	93
36	70	**8	93
10	71	5	94
32	72	**7	94
17	73		

>> TOTAL TUBES PLUGGED (HOT LEG) = 166
 >> TOTAL TUBES PLUGGED (COLD LEG) = 167
 * PREVIOUSLY INSTALLED PLUG REMOVED IN COLD LEG ONLY, NEW PLUG INSTALLED
 ** SENTINEL PLUG IN COLD LEG
 *** TUBE PLUGGED AND STABILIZED

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "B" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
2	4	35	22
4	6	2	23
16	6	3	23
11	7	6	24
11	8	7	24
12	8	15	24
*25	8	22	24
6	9	20	25
15	9	21	25
2	11	39	25
11	11	5	27
16	11	7	27
18	12	8	27
2	13	14	27
8	13	21	27
10	13	37	27
11	13	9	28
13	14	11	28
15	14	12	28
17	14	20	28
12	15	37	28
20	15	5	29
18	16	9	29
8	17	3	30
2	20	6	30
10	21	15	30
14	21	6	31
36	21	10	31
37	21	15	31
3	22	21	31
16	22	12	32
21	22	3	33

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "B" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
6	33	28	42
10	33	33	42
18	33	41	42
22	33	37	43
2	34	39	43
15	34	13	44
4	35	19	44
2	36	6	45
9	36	14	45
15	36	10	46
18	36	19	46
* 25	36	20	46
4	37	45	46
8	37	6	47
28	37	10	47
6	40	27	47
7	40	26	48
15	40	28	48
41	40	29	49
2	41	33	50
4	41	20	51
5	41	34	51
9	41	40	51
18	41	45	51
22	41	12	52
28	41	33	53
34	41	46	53
41	41	10	54
10	42	14	54
14	42	27	54
23	42	34	54
26	42	35	54

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "B" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
39	54	4	66
43	54	10	66
42	55	32	66
9	56	8	68
13	56	15	70
16	56	13	72
8	58	35	72
26	59	38	72
18	60	12	74
36	62	15	74
3	63	33	74
26	64	2	76
34	64	16	76
9	65	15	77
13	65	22	83
16	65	13	90

➤ TOTAL TUBES PLUGGED = 160
* TUBES PLUGGED AND STABILIZED

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "C" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
6	3	9	14
2	4	11	14
6	4	11	16
12	4	26	16
14	4	27	16
12	5	29	16
13	5	19	17
16	5	24	17
14	6	27	17
17	6	17	18
3	7	27	18
16	7	30	18
17	7	11	19
21	7	22	19
14	8	5	20
25	8	20	20
4	9	22	20
8	9	37	20
15	9	12	21
20	9	16	21
12	10	22	21
14	10	2	22
16	10	5	22
24	10	15	22
5	11	32	22
18	11	2	23
24	11	10	23
26	11	23	23
27	11	30	23
25	12	5	24
6	13	6	24
4	14	8	24

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "C" - TUBE PLUGGING SUMMARY

<u>Row</u>	<u>Col.</u>	<u>Row</u>	<u>Col.</u>
17	24	7	36
35	24	11	36
3	25	14	36
23	25	24	36
7	26	33	36
10	26	38	36
22	26	40	36
2	27	5	37
21	27	7	37
24	27	26	37
15	28	32	37
10	29	23	38
18	29	11	39
16	30	13	39
18	30	5	40
38	31	6	40
40	31	25	40
5	33	36	40
6	33	15	41
8	33	34	41
9	33	45	41
36	33	34	42
38	33	41	42
11	34	45	42
21	34	3	43
11	35	8	43
12	35	15	43
13	35	20	43
25	35	37	43
38	35	16	44
39	35	18	44
4	36	36	44

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "C" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
11	45	32	57
19	45	12	58
16	46	44	58
18	46	28	59
27	46	12	60
26	47	27	60
37	47	10	61
28	48	28	61
8	49	17	62
9	49	6	63
14	49	17	63
15	49	30	63
16	49	11	64
17	49	23	64
37	49	9	64
22	50	11	64
25	50	9	65
44	50	10	65
18	51	30	65
35	51	4	66
20	52	24	66
36	52	15	67
42	53	30	67
18	54	34	68
37	54	7	69
16	55	29	69
33	55	3	70
25	56	4	70
26	56	18	70
7	57	28	70
10	57	30	70
25	57	27	71

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR "C" - TUBE PLUGGING SUMMARY

Row	Col.	Row	Col.
10	72	11	83
26	72	6	86
3	73	11	86
27	75	12	87
17	80		

> TOTAL TUBES PLUGGED = 201

NORTH ANNA UNIT 1
MID-CYCLE OUTAGE 1992
STEAM GENERATOR TUBE PLUGGING SUMMARY

	Steam Generator			
	A	B	C	⇒ TOTAL
No. Previously Plugged Tubes	463	425	650	⇒ 1538
No. Tubes Plugged in 1992 Mid Cycle Outage	166	160	201	⇒ 527
Total Tubes Plugged	629	585	851	⇒ 2065
% TUBES PLUGGED	18.6	17.3	25.1	20.3