

CALVERT CLIFFS

UNIT 2

STEAM GENERATORS #21 AND #22

EDDY CURRENT TESTING

FINAL REPORT

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I. INTRODUCTION

Zetec, Inc. and NDE Technology were contracted in January, 1990 to provide equipment and personnel supporting BG&E with the eddy current examination of the Calvert Cliffs Unit 2 Steam Generators in Lusby, Maryland. Zetec, Inc. provided twelve people for data acquisition and thirteen people for the primary data evaluation. NDE Technology provided four people for the secondary data evaluation.

This report summarizes the August/October, 1990 eddy current inspection results of Calvert Cliffs Unit 2 Steam Generators. This inspection was the second inservice inspection during the current Unit 2 outage. The previous examination was a 100% inspection completed in April 1989.

II. DISCUSSION

The MIZ-18A eddy current system and qualified operators inspected the Calvert Cliffs Unit 2 Steam Generators 21 and 22. The system uses eddy current as the probing media to measure variations in effective conductivity and/or permeability of the tube being tested.

An alternating voltage is impressed across the test coil. The magnetic field developed by current flow in the test coil causes eddy currents to flow in the tube wall. The corresponding magnetic field caused by eddy current flow in the tube wall is out of phase with the field developed by the current in the test coil. Since these fields tend to cancel one another, the coil voltage is decreased in proportion to the magnitude of eddy current flow in the test piece. The magnitude of eddy currents in the test piece, thus the coil voltage, is dependent on the electrical properties of the tube being tested. The electrical properties which affect the flow of eddy currents are permeability and conductivity. In non-magnetic materials, such as Ni-Cr-Fe alloys, conductivity is usually the only significant variable. When the effective conductivity decreases due to a discontinuity in the tube wall, the coil voltage increases in direct relationship with the effective conductivity change. Thus, the amount of increase in coil voltage is related to the size of the discontinuity in the tube wall. The coil voltage is sinusoidal, thus it can be described with a single vector having magnitude and phase.

The BG&E Technical Specification eddy current (ET) testing plan for this inspection selected approximately 15% of the tubes in each steam generator (SG) for full length inspection. The inspection sample included: (1) Tubes which had previous eddy current indications, (2) Tubes adjacent to plugged tubes, (3) Tubes from areas susceptible to generic type problems, and (4) Tubes on the periphery of the bundle.

The examination inspected 1,422 (16%) of SG 21 tubes and 1,246 (14%) of SG 22 tubes through their entire length. 158 tubes had indications of 20% through-wall degradation or greater. However, only 20 of these tubes exhibited greater than 10% further wall penetrations from previous inspections by eddy current analysis and were classified as degraded tubes for this inspection. The results of the examination were therefore classified as Category C-1 in accordance with Technical Specification 4.4.5.2.

SG's 21 and 22 were examined using the Zetec MIZ-18A digital data acquisition system. The frequencies selected were 800, 400, 100, and 30 KHz - all of which were run in the differential and absolute modes. The examination utilized a standard A.560-SF/RM bobbin coil probe. The MIZ-18A digital data acquisition system provided on-line data digitization and storage onto magnetic tape cartridges. The digital signal was also converted to analog where selected frequencies were recorded on strip chart media as an aid to the analyst.

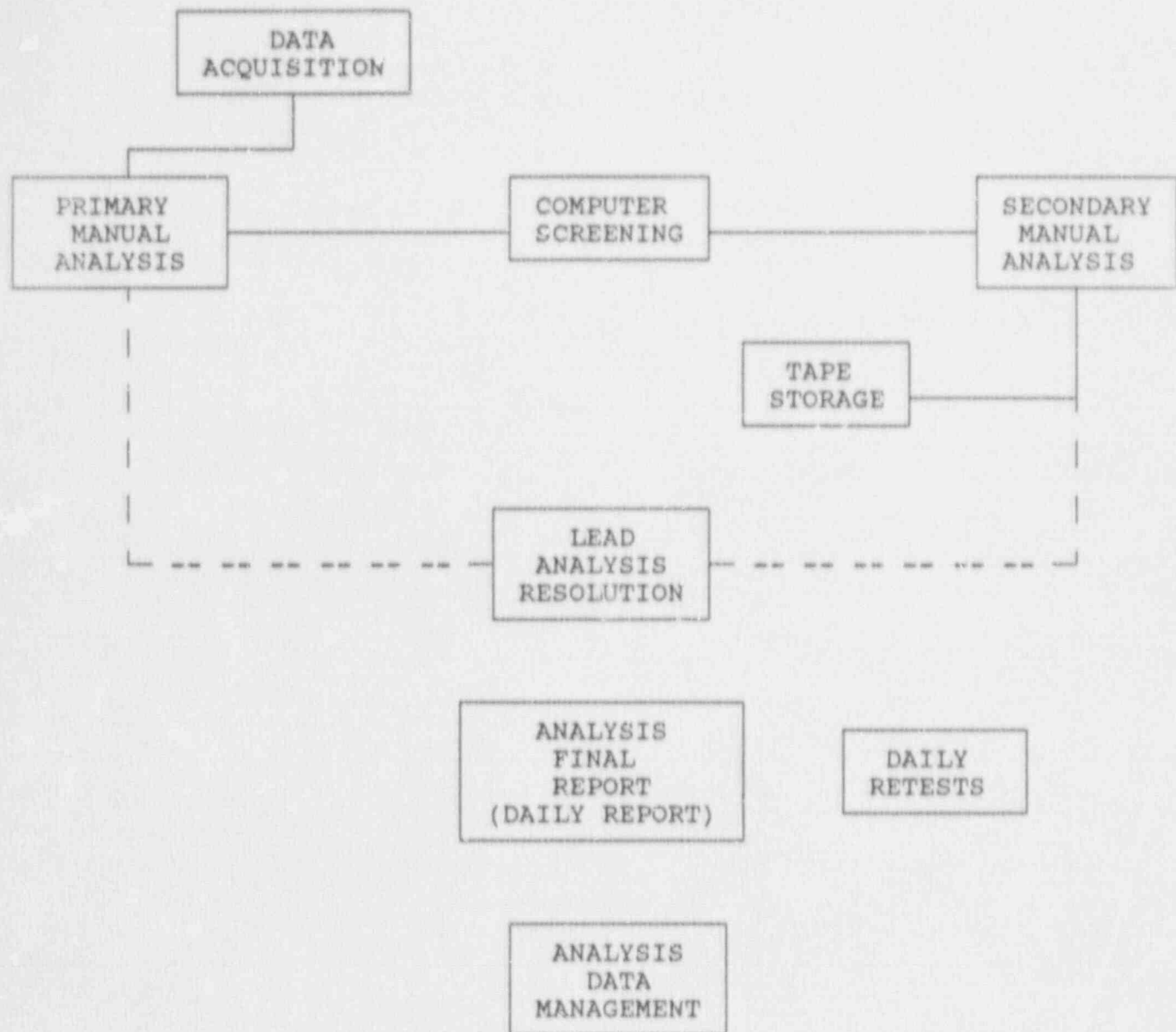
Prior to any ET analysis, the primary, secondary, and Computer Data Screening (CDS) analysts were required to take a BG&E analyst qualification examination. All analysts passed the BG&E site specific test. In addition, CDS, with qualified analysts, was tested and passed the examination.

Each tube's ET data was analyzed by two independent teams of qualified and certified personnel and by computer analysis. Zetec Analysis Software Edition 18.6, Rev. 5 with strip charts was used by each team of analysts. Additionally, all stored digital data was analytically processed by Zetec's CDS program using HP350/360 computers. All distorted and plugable indications were retested. After all data review was completed, the primary and secondary lead analysts compared results with the CDS results and a final report was produced. Figure II-1 illustrates the outage data analysis process.

In addition to the standard Bobbin ET testing, a large number of tubes were inspected using motorized rotating pancake coil (MRPC) probes in the area of the roll transition region of the tube just above the tubesheet. A sample of approximately 30% of the tubes in each SG were examined with the MRPC technique on the hot leg side in this region. This sample was concentrated in the sludge pile region of the SG and included 50% of the tubes considered to be within the sludge pile. This expanded MRPC sample was performed to address concerns of circumferential cracking in this region found at other plants. No evidence of circumferential cracking was detected in either steam generator.

FIGURE II - 1

Data Analysis Process



-- -- -- = INFORMATION FLOW

———— = DATA TAPE FLOW

Indications were found in a total of 167 tubes from the 1,422 tubes examined in SG 21 and 126 tubes from the 1,246 tubes examined in SG 22. No tubes were plugged as a result of this inspection. Table II-1 is a summary of the Calvert Cliffs Unit Two 1990 Eddy Current examination results.

Various plots illustrating the locations and distribution of tube indications and a listing of tubes plugged this inspection for SG's 21 and 22 are provided in Appendix I and II respectively. The SG sketch in Appendix III shows the various tube support locations within the SG's and the nomenclature used throughout this report.

The tubing ET indications can be placed into one of three major location categories:

- just below and above the top of the tubesheet
- at supports, or
- in free span areas between and not associated with supports.

These inspection results are similar to that reported for Calvert Cliffs Unit 1. There are no apparent differences between Unit 1 and Unit 2 that indicate a unique problem in any particular SG. This is to be expected since operating and chemistry conditions have remained similar between the two plants.

Indications found just below and above the top of the tubesheet are in regions of higher sludge levels. Most of these indications are on the inlet tubesheet side and produce relatively low magnitude signals. In late 1986, tube specimens removed from Unit 1 underwent metallurgical and chemical evaluations. Results show that these indications are caused by IGA.

TABLE II - 1

Unit Two Eddy Current Inspection Results

	SG 21	SG 22
Number of Tubes Inspected	1,422	1,246
Percent of Tubes Inspected (full length)	16%	14%
Number of Tubes Showing >10% Addition. Penet.	8	12
Percent of Tubes Insp. with >10% Add. Penet.	0.56%	0.96%
Number of Indications <20% (Imperfections)	95	69
Number of Tubes with <20% Indications	92	61
Percent of Tubes Insp. with <20% Indications	6.47%	4.90%
Number of Indications 20-39% (Degraded)	94	80
Number of Tubes with 20-39% Indications	84	71
Percent of Tubes Insp with 20-39% Indications	5.91%	5.70%
Number of Indications >39% (Defective)	0	0
Number of Tubes with >39% Indications	0	0
Percent of Tubes with >39% Indications	0%	0%
Number of Tubes Plugged this Outage	0	0
Total Tubes Plugged each Steam Generator	75	38

NOTE: Tubes which contained more than one indication in more than one category (20%, 20-39%, and 40% and greater), are listed in all appropriate categories.

ET indications seen at support locations appear to be caused by isolated, random tube wear. Wear marks at a support contact region were confirmed on one tube removed from SG 11 in 1983. Note that most indications at supports occur at the vertical middle (VM), diagonal (DH & DC), and vertical hot and cold (VH & VC) leg side supports.

ET indications seen in free span areas are typically low magnitude signals. Three tube specimens containing free span indications were removed from SG 11, one in November, 1983 and two in November, 1986. Investigations of the free span indications showed these indications are manufacturing imperfections. There is no correlation of free span indications with respect to location, elevation, inlet side or outlet side; tube manufacturing imperfections would be expected to produce random occurrences like this.

Corrective measures have been initiated to minimize further degradation to the SG's. During the 1986 outage the removal of all major copper components from the feedwater and condensate systems was completed. The installation of a nitrogen blanketing system on all condensate storage tanks is being completed to reduce auxiliary feedwater and condensate makeup oxygen.

Current chemistry procedures require action to be taken below the Utility/EPRI Steam Generator Reliability Project (SGRP) PWR Secondary Water Chemistry Guideline Action Levels. This enables corrective measures to be initiated before conditions become degraded in the SG's.

APPENDIX I

Eddy Current Test Results for SG 21

- A. List with Plot of All Indications
- B. List with Plot of <20% Indications
- C. List with Plot of 20% - 39% Indications
- D. List with Plot of All Tubes Examined
- E. List with Plot of Tubes Dented
- F. List with Plot of All Tubes Plugged

STEAM GENERATOR 21

A. List with Plot of All Indications

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: ALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
1	9	10/90	OD	27 % TW	1.03	H3	+10.60
		10/90	OD	34 % TW	0.50	H3	+19.00
		10/90	OD	15 % TW	1.02	H3	+24.60
1	13	10/90	OD	24 % TW	0.50	C3	+ 8.30
		10/90	OD	34 % TW	0.58	C3	+30.90
1	121	10/90	OD	11 % TW	0.84	H3	+34.50
2	148	10/90	OD	33 % TW	0.96	C3	+35.90
6	24	10/90	OD	11 % TW	0.70	H2	+ 3.50
11	55	10/90	OD	10 % TW	1.54	VM	
11	57	10/90	OD	17 % TW	1.20	VM	
12	130	10/90	OD	17 % TW	0.78	H1	+36.20
		10/90	OD	39 % TW	1.09	H2	+ 1.00
13	145	10/90	OD	17 % TW	0.71	CTS-SF	+18.10
14	58	10/90	OD	35 % TW	0.49	C4	+31.50
		10/90	OD	25 % TW	0.55	CTS-SF	+17.90
14	118	10/90	OD	16 % TW	0.68	C2	+ 5.60
16	154	10/90	ID	35 % TW	0.48	CTS-SF	+ 4.80
17	63	10/90	OD	19 % TW	0.78	CTS-SF	+30.30
18	24	10/90	OD	31 % TW	1.31	H4	+18.60
		10/90	OD	26 % TW	0.67	H4	+19.90
19	49	10/90	OD	39 % TW	0.56	C2	+19.00
20	6	10/90	OD	24 % TW	0.85	C2	+28.70
21	9	10/90	OD	21 % TW	0.83	C1	+27.50
21	157	10/90	OD	10 % TW	2.19	C4	+30.20
23	46	10/90	OD	22 % TW	1.11	CTS-SF	+ 8.80
23	31	10/90	OD	19 % TW	0.56	C4	+26.20
24	151	10/90	OD	23 % TW	0.77	C5	+26.40
24	144	10/90	OD	24 % TW	0.53	HTS-SF	+ 0.70
24	160	10/90	OD	26 % TW	0.72	C2	+33.60
25	51	10/90	OD	17 % TW	0.54	C2	+10.50
25	143	10/90	OD	15 % TW	0.99	HTS-SF	+ 0.80
25	155	10/90	OD	37 % TW	0.95	H3	+33.70
27		10/90	OD	31 % TW	0.62	H3	+11.80
27	147	10/90	OD	28 % TW	0.49	CTS-SF	+ 4.70
27	163	10/90	OD	17 % TW	0.77	H2	+ 8.50
28	4	10/90	OD	22 % TW	0.43	H5	+17.00
28	50	10/90	OD	19 % TW	0.81	HTS-SF	+19.00
29	69	10/90	OD	32 % TW	1.19	H3	+20.20
29	129	10/90	OD	29 % TW	1.17	C3	+ 8.00
29	141	10/90	OD	17 % TW	3.53	CTS-SF	+21.70
32	100	10/90	OD	34 % TW	0.90	C2	+33.40
34	144	10/90	OD	16 % TW	0.46	C3	+ 2.10
34	62	10/90	OD	22 % TW	0.74	C3	+34.50
34	140	10/90	OD	26 % TW	0.66	H3	+25.10
35		10/90	OD	22 % TW	0.73	C3	+20.80
35	105	10/90	OD	22 % TW	0.58	H3	+26.00
35	111	10/90	OD	15 % TW	1.09	H3	+23.10
37	179	10/90	OD	12 % TW	0.68	H1	+11.90
39	163	10/90	OD	19 % TW	0.62	H2	+ 7.20
43	113	10/90	OD	34 % TW	0.83	HTS-SF	+36.80
43	125	10/90	OD	38 % TW	0.70	C1	
45	55	10/90	OD	18 % TW	0.58	HTS-SF	+ 0.76
46	34	10/90	OD	12 % TW	1.20	H5	+ 6.60
46	72	10/90	OD	26 % TW	1.43	H1	+24.70
46	134	10/90	OD	28 % TW	0.92	HTS-SF	+ 0.70
48	56	10/90	OD	33 % TW	0.74	HTS-SF	+ 1.01
51	43	10/90	OD	48 % TW	0.55	H2	+29.21
51	123	10/90	OD	48 % TW	0.53	H4	+10.00
51	131	10/90	OD	7 % TW	0.75	HTS-SF	+ 0.70
53	87	10/90	OD	44 % TW	0.71	C3	+30.00
54	58	10/90	OD	44 % TW	0.72	C4	+28.70
55	35	10/90	OD	11 % TW	1.38	HTS-SF	+ 0.76
56	90	10/90	OD	29 % TW	1.74	H3	+25.00
58	61	10/90	OD	16 % TW	0.75	HTS-SF	+ 1.01
61	21	10/90	OD	38 % TW	0.60	HTS-SF	+32.00
61	103	10/90	OD	10 % TW	0.98	H4	+ 6.80
61	125	10/90	OD	24 % TW	0.73	H1	+18.80

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: ALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
61	129	10/90	OD	25 % TW	0.47	HTS-SF	+ 0.30
62	28	10/90	OD	31 % TW	1.37	C5	+10.66
62	38	10/90	OD	11 % TW	0.71	HTS-SF	+ 0.76
62	66	10/90	OD	12 % TW	0.66	HTS-SF	+ 0.76
64	38	10/90	OD	15 % TW	0.92	HTS-SF	+ 0.96
65	131	10/90	OD	16 % TW	0.99	HTS-SF	+ 0.70
66	122	10/90	OD	11 % TW	0.65	HTS-SF	+ 0.60
69	37	10/90	OD	28 % TW	0.70	H5	+14.47
69	93	10/90	OD	22 % TW	0.60	HTS-SF	+ 1.00
71	83	10/90	OD	24 % TW	0.63	C7	+15.10
		10/90	OD	25 % TW	0.55	HTS-SF	+ 0.80
72	22	10/90	OD	32 % TW	0.60	VM	+19.90
73	65	10/90	OD	19 % TW	1.24	H2	+17.50
74	74	10/90	1D	22 % TW	1.51	HTS-SF	+27.20
75	15	10/90	OD	17 % TW	0.51	HTS-SF	+ 1.50
75	75	10/90	OD	24 % TW	0.56	HTS-SF	+ 0.30
75	93	10/90	OD	11 % TW	0.80	H5	+24.80
76	42	10/90	OD	11 % TW	0.88	HTS-SF	+ 0.76
76	66	10/90	OD	18 % TW	0.41	HTS-SF	+ 0.50
78	42	10/90	OD	11 % TW	0.90	C5	+ 1.77
78	124	10/90	OD	11 % TW	0.79	C4	+ 3.10
78	152	10/90	OD	11 % TW	0.73	C4	+17.00
79	51	10/90	OD	28 % TW	0.54	H2	+25.80
79	119	10/90	OD	18 % TW	0.76	HTS-SF	+ 0.90
		10/90	OD	18 % TW	0.98	VM	+22.00
79	135	10/90	OD	19 % TW	0.51	HTS-SF	+28.10
81	49	10/90	OD	23 % TW	0.47	HTS-SF	+ 0.76
81	119	10/90	OD	11 % TW	0.54	HTS-SF	+ 0.90
81	123	10/90	OD	28 % TW	0.58	H5	+25.50
83	52	10/90	OD	19 % TW	0.60	HTS-SF	+ 0.76
83	74	10/90	OD	21 % TW	0.74	C4	+11.90
83	80	10/90	OD	22 % TW	0.49	HTS-SF	+ 0.70
83	92	10/90	OD	22 % TW	0.38	HTS-SF	+ 0.50
83	116	10/90	OD	19 % TW	0.63	HTS-SF	+ 0.80
83	120	10/90	OD	15 % TW	1.03	HTS-SF	+ 0.90
83	19	10/90	OD	11 % TW	0.57	VM	+21.00
83	49	10/90	OD	21 % TW	0.70	HTS-SF	+ 0.76
83	123	10/90	OD	19 % TW	0.65	HTS-SF	+ 0.60
84	34	10/90	OD	18 % TW	0.51	HTS-SF	+29.40
84	92	10/90	OD	19 % TW	0.56	HTS-SF	+ 0.70
85	73	10/90	OD	22 % TW	0.40	CTS-SF	+11.90
87	27	10/90	OD	21 % TW	0.72	H2	+ 6.60
88	88	10/90	OD	15 % TW	0.43	C4	+31.40
89	123	10/90	OD	16 % TW	0.65	C1	+19.20
90	46	10/90	OD	10 % TW	1.66	H1	+ 3.10
90	76	10/90	OD	19 % TW	0.47	HTS-SF	+ 0.90
90	92	10/90	OD	15 % TW	1.39	HTS-SF	+ 0.80
90	96	10/90	OD	17 % TW	1.26	HTS-SF	+ 1.10
90	130	10/90	OD	19 % TW	0.51	CTS-SF	+23.00
92	22	10/90	OD	16 % TW	0.46	H3	+15.40
94	100	10/90	OD	23 % TW	2.55	C4	+ 5.80
95	45	10/90	OD	25 % TW	0.86	H1	+26.80
95	67	10/90	OD	16 % TW	0.65	HTS-SF	+ 0.70
95	69	10/90	OD	17 % TW	0.68	HTS-SF	+ 0.80
99	51	10/90	OD	29 % TW	0.52	C5	+14.50
99	55	10/90	OD	28 % TW	0.39	C8	+20.60
100	100	10/90	OD	27 % TW	0.58	C3	+16.50
		10/90	OD	16 % TW	0.66	C3	+31.60
100	134	10/90	OD	12 % TW	0.69	H6	+11.70
101	29	10/90	OD	16 % TW	1.46	CTS-SF	+21.40
101	95	10/90	OD	11 % TW	0.71	C1	+ 8.60
101	123	10/90	OD	16 % TW	1.30	VC	+ 3.00
102	100	10/90	OD	17 % TW	0.79	H7	+11.60
102	126	10/90	OD	11 % TW	0.57	H2	+13.70
105	119	10/90	OD	12 % TW	0.63	CTS-SF	+ 2.20
		10/90	OD	29 % TW	1.09	CTS-SF	+ 1.00
106	36	10/90	OD	12 % TW	0.71	H4	+26.80

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: ALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
106	126	10/90	OD	17 % TW	0.83	CTS-SF	+ 1.50
107	67	10/90	OD	15 % TW	0.66	H4	+ 6.40
108	50	10/90	OD	17 % TW	0.74	C3	+13.80
109	33	10/90	OD	31 % TW	1.14	C7	+23.50
110	38	10/90	OD	16 % TW	0.91	H4	+35.60
110	118	10/90	OD	18 % TW	0.51	VH	+16.80
111	73	10/90	OD	28 % TW	0.67	H5	+29.80
112	48	10/90	OD	16 % TW	0.65	H7	+16.50
112	62	10/90	OD	10 % TW	1.06	C1	+19.90
112	124	10/90	OD	24 % TW	0.76	C2	+ 3.40
114	116	10/90	OD	24 % TW	0.50	HTS-SF	+ 6.40
115	79	10/90	OD	24 % TW	1.15	H3	+36.20
115	105	10/90	OD	10 % TW	0.58	CTS-SF	+ 2.80
116	74	10/90	OD	35 % TW	0.95	H2	+27.20
		10/90	OD	14 % TW	0.94	H2	+30.60
119	49	10/90	OD	24 % TW	0.61	H2	+25.40
		10/90	OD	18 % TW	0.94	H4	+14.95
120	46	10/90	OD	28 % TW	0.76	CTS-SF	+ 1.30
120	60	10/90	OD	28 % TW	1.05	CTS-SF	+ 1.20
120	100	10/90	OD	17 % TW	1.13	VH	+12.80
		10/90	OD	15 % TW	0.69	VH	+15.00
121	61	10/90	OD	2 % TW	0.56	DH	+18.10
121	107	10/90	OD	24 % TW	0.47	CTS-SF	+ 1.80
122	96	10/90	OD	25 % TW	0.56	HTS-SF	+23.10
		10/90	OD	11 % TW	0.64	H3	+27.50
123	113	10/90	OD	31 % TW	0.73	C8	+20.6
124	46	10/90	OD	1 % TW	1.43	CTS-SF	+ 2.90
124	68	10/90	OD	18 % TW	0.83	CTS-SF	+ 1.20
125	71	10/90	OD	2 % TW	0.66	HTS-SF	+ 9.60
125	85	10/90	OD	31 % TW	0.76	C1	+35.80
126	64	10/90	OD	28 % TW	0.84	H9	+12.90
126	70	10/90	OD	28 % TW	0.76	HTS-SF	+ 4.90
126	84	10/90	OD	10 % TW	1.41	C2	+25.00
127	97	10/90	OD	14 % TW	0.94	HTS-SF	+11.70
127	103	10/90	OD	15 % TW	1.07	H4	+28.60
		10/90	OD	19 % TW	1.05	C8	+19.00
		10/90	OD	10 % TW	1.63	C7	+ 8.40
128	54	10/90	OD	24 % TW	0.88	HTS-SF	+11.80
129	55	10/90	OD	22 % TW	1.71	C6	+ 9.10
129	95	10/90	OD	24 % TW	1.07	C2	+11.80
130	82	10/90	OD	21 % TW	1.11	C2	+33.20
130	106	10/90	OD	25 % TW	0.69	C10	+30.90
131	109	10/90	OD	28 % TW	0.80	HTS-SF	+ 6.70
132	56	10/90	OD	22 % TW	0.73	H3	+ 7.00
		10/90	OD	17 % TW	1.10	C8	+18.50
132	84	10/90	OD	28 % TW	1.25	C3	+ 4.90
		10/90	OD	28 % TW	1.43	C1	+36.90
134	70	10/90	OD	24 % TW	1.36	C10	+ 7.30
134	63	10/90	OD	24 % TW	1.62	CTS-SF	+17.50
135	67	10/90	OD	24 % TW	0.92	H5	+ 1.70
		10/90	OD	18 % TW	1.22	H5	+ 9.60
		10/90	OD	22 % TW	1.18	H6	+17.50
137	71	10/90	OD	2 % TW	0.92	HTS-SF	+ 8.90
139	81	10/90	OD	16 % TW	1.36	DH	
139	95	10/90	OD	13 % TW	1.29	CTS-SF	+ 2.40

TOTAL TUBES FOUND = 167

TOTAL INDICATIONS FOUND = 189

TOTAL TUBES IN INPUT FILE = 8519

TOTAL TUBES INSPECTED = 1422

STEAM GENERATOR 21

B. List with Plot of $\leq 20\%$ Indications

LESS THAN 20% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

PLANT: CALVERT CLIFFS UNIT 2

GENERATOR 21

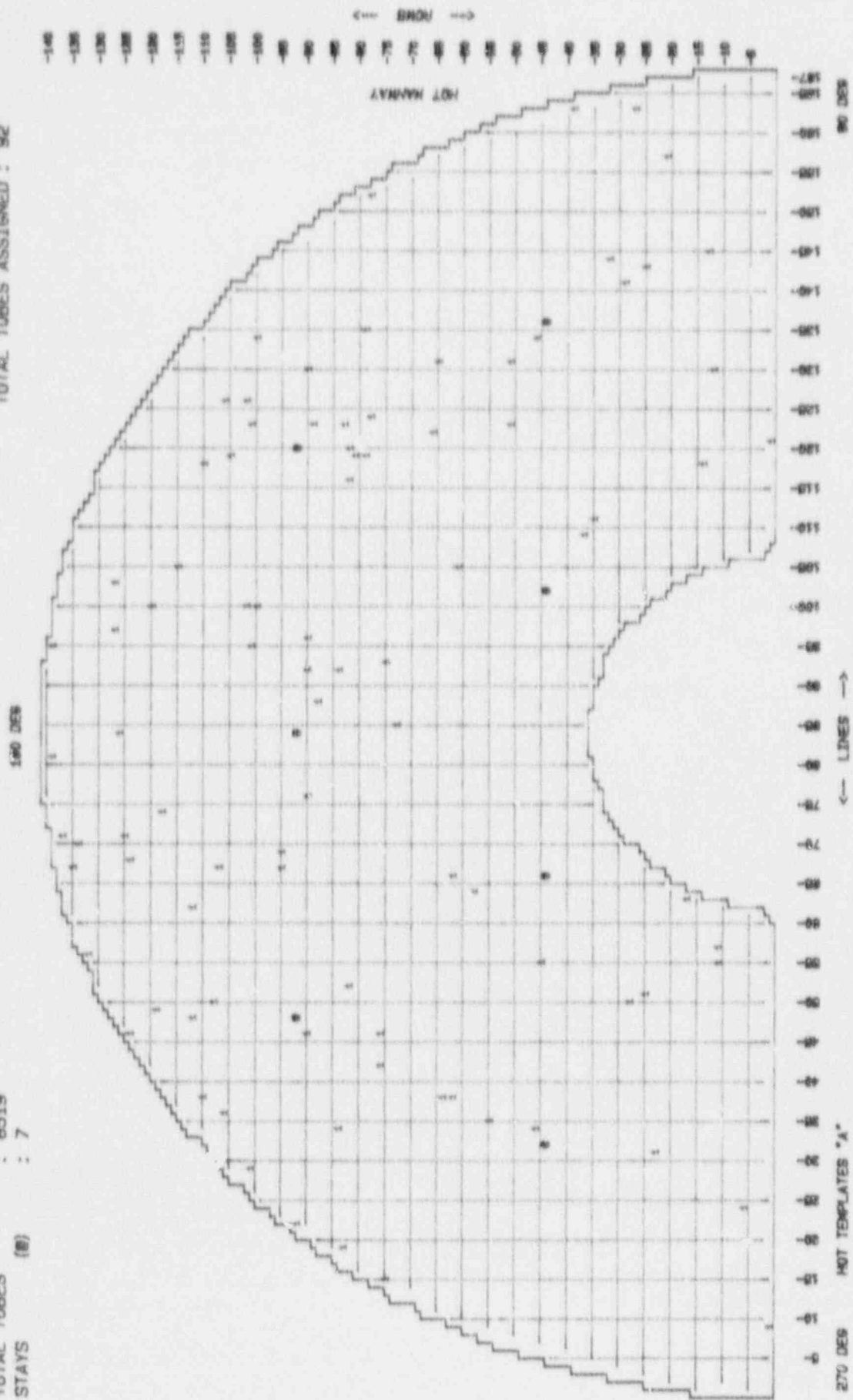
CUTAGE: 10/90

1 - 20 1927

TOTAL TUBES	: 8519
STAYS (E)	: 7

STAYS (0) : 7

TOTAL TUBES ASSIGNED : 92



Plant: CALVERT CLIFFS UNIT 2
Outage: 12/90

Steam Generator: 21

QUERY: LESS THAN 20% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
1	9	10/90	OD	15 % TW	1.02	H3	+24.60
1	121	10/90	OD	12 % TW	0.84	H5	+34.50
6	24	10/90	OD	12 % TW	0.70	H2	+ 3.50
11	55	10/90	OD	10 % TW	1.54	VM	
12	57	10/90	OD	17 % TW	1.20	VM	
12	130	10/90	OD	13 % TW	0.78	H1	+36.20
13	145	10/90	OD	17 % TW	0.71	CTS-SF	+18.10
14	118	10/90	OD	16 % TW	0.68	C2	+ 5.60
17	63	10/90	OD	19 % TW	0.78	CTS-SF	+30.30
21	157	10/90	OD	10 % TW	2.19	C4	+30.20
22	31	10/90	OD	19 % TW	0.66	C4	+26.20
23	51	10/90	OD	17 % TW	0.54	C2	+10.50
23	143	10/90	OD	15 % TW	0.99	HTS-SF	+ 0.90
23	163	10/90	OD	17 % TW	0.77	H2	+ 8.80
23	50	10/90	OD	19 % TW	0.81	HTS-SF	+18.00
23	141	10/90	OD	17 % TW	3.53	CTS-SF	+21.70
23	144	10/90	OD	19 % TW	0.46	C3	+ 2.10
23	111	10/90	OD	15 % TW	1.09	H3	+23.10
27	109	10/90	OD	13 % TW	0.68	H1	+11.90
39	163	10/90	OD	19 % TW	0.62	H2	+ 7.20
45	55	10/90	OD	18 % TW	0.58	HTS-SF	+ 0.76
46	34	10/90	OD	12 % TW	1.20	H5	+ 6.60
46	134	10/90	OD	8 % TW	0.92	HTS-SF	+ 0.70
51	123	10/90	OD	18 % TW	0.53	H4	+10.00
51	151	10/90	OD	7 % TW	0.75	HTS-SF	+ 0.70
55	35	10/90	OD	13 % TW	1.38	HTS-SF	+ 0.76
55	64	10/90	OD	16 % TW	0.75	HTS-SF	+ 1.01
61	105	10/90	OD	10 % TW	0.98	H4	+ 6.80
62	38	10/90	OD	11 % TW	0.71	HTS-SF	+ 0.76
62	66	10/90	OD	12 % TW	0.66	HTS-SF	+ 0.76
64	38	10/90	OD	15 % TW	0.92	HTS-SF	+ 4.06
65	131	10/90	OD	26 % TW	0.94	HTS-SF	+ 0.70
66	122	10/90	OD	11 % TW	0.65	HTS-SF	+ 0.60
73	85	10/90	OD	19 % TW	1.24	H2	+17.50
75	15	10/90	OD	17 % TW	0.51	HTS-SF	+ 1.50
75	93	10/90	OD	11 % TW	0.80	H5	+24.80
76	42	10/90	OD	11 % TW	0.88	HTS-SF	+ 0.76
76	46	10/90	OD	18 % TW	0.41	HTS-SF	+ 0.50
78	124	10/90	OD	10 % TW	0.79	C4	+ 3.10
78	152	10/90	OD	12 % TW	0.73	C4	+17.00
79	119	10/90	OD	18 % TW	0.76	HTS-SF	+ 0.90
79		10/90	OD	15 % TW	0.98	VM	+22.00
79	135	10/90	OD	19 % TW	0.51	HTS-SF	+28.10
81	119	10/90	OD	11 % TW	0.54	HTS-SF	+ 0.90
82	52	10/90	OD	19 % TW	0.60	HTS-SF	+ 0.76
82	116	10/90	OD	19 % TW	0.63	HTS-SF	+ 0.80
82	120	10/90	OD	15 % TW	1.03	HTS-SF	+ 0.90
83	19	10/90	OD	11 % TW	0.57	VM	+21.00
83	123	10/90	OD	19 % TW	0.65	HTS-SF	+ 0.60
84	34	10/90	OD	18 % TW	0.51	HTS-SF	+29.40
84	92	10/90	OD	19 % TW	0.56	HTS-SF	+ 0.70
88	88	10/90	OD	15 % TW	0.43	C4	+31.40
89	123	10/90	OD	16 % TW	0.65	C1	+19.20
90	46	10/90	OD	10 % TW	1.66	H6	+ 3.10
90	76	10/90	OD	19 % TW	0.62	HTS-SF	+ 0.90
90	92	10/90	OD	15 % TW	1.39	HTS-SF	+ 0.80
90	96	10/90	OD	17 % TW	1.26	HTS-SF	+ 1.10
90	130	10/90	OD	19 % TW	0.81	CTS-SF	+23.00
92	22	10/90	OD	16 % TW	0.46	H3	+15.40
95	67	10/90	OD	16 % TW	0.65	HTS-SF	+ 0.70
95	69	10/90	OD	17 % TW	0.88	HTS-SF	+ 0.80
100	100	10/90	OD	18 % TW	0.66	C3	+31.60
100	134	10/90	OD	12 % TW	0.69	H6	+11.70
101	29	10/90	OD	16 % TW	1.46	CTS-SF	+21.40
101	95	10/90	OD	11 % TW	0.71	C1	+ 8.60
101	123	10/90	OD	16 % TW	1.30	VC	+ 3.00
102	100	10/90	OD	14 % TW	0.79	H7	+11.60

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: LESS THAN 20% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
102	126	10/90	OD	11 % TW	0.57	H2	+12.70
105	119	10/90	OD	12 % TW	0.63	CTS-SF	+ 2.20
106	36	10/90	OD	12 % TW	0.71	H4	+26.80
106	126	10/90	OD	17 % TW	0.88	CTS-SF	+ 1.50
107	67	10/90	OD	15 % TW	0.66	H4	+ 6.40
108	50	10/90	OD	17 % TW	0.74	C3	+13.80
110	38	10/90	OD	16 % TW	0.91	H4	+25.60
110	118	10/90	OD	18 % TW	0.51	VH	+18.80
112	48	10/90	OD	16 % TW	0.65	H7	+18.50
112	62	10/90	OD	10 % TW	1.06	C1	+19.90
115	105	10/90	OD	10 % TW	0.58	CTS-SF	+ 2.80
118	74	10/90	OD	14 % TW	0.94	H2	+30.60
119	49	10/90	OD	18 % TW	0.94	H4	+14.90
120	100	10/90	OD	18 % TW	0.69	VH	+15.00
124	46	10/90	OD	11 % TW	1.43	CTS-SF	+ 2.90
124	66	10/90	OD	11 % TW	0.83	CTS-SF	+ 1.20
125	71	10/90	OD	11 % TW	0.65	HTS-SF	+ 4.60
126	84	10/90	OD	10 % TW	1.41	C2	+25.00
127	97	10/90	OD	11 % TW	0.94	HTS-SF	+11.70
127	103	10/90	OD	14 % TW	1.07	H4	+28.60
		10/90	OD	14 % TW	1.05	C8	+19.00
		10/90	OD	10 % TW	1.63	C7	+ 8.40
132	56	10/90	OD	19 % TW	1.10	C6	+18.50
134	70	10/90	OD	17 % TW	1.36	C10	+ 7.30
135	67	10/90	OD	18 % TW	1.22	H6	+ 9.60
137	71	10/90	OD	13 % TW	0.92	HTS-SF	+ 8.90
139	81	10/90	OD	16 % TW	1.36	DH	
139	95	10/90	OD	13 % TW	1.29	CTS-SF	+ 2.10

TOTAL TUBES FOUND = 92
TOTAL INDICATIONS FOUND = 95

TOTAL TUBES IN INPUT FILE = 8519
TOTAL TUBES INSPECTED = 1422

STEAM GENERATOR 21

C. List with Plot of 20% - 39% Indications

20-39% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

PLANT: CALVERT CLIFFS UNIT 2
OUTAGE: 10/90

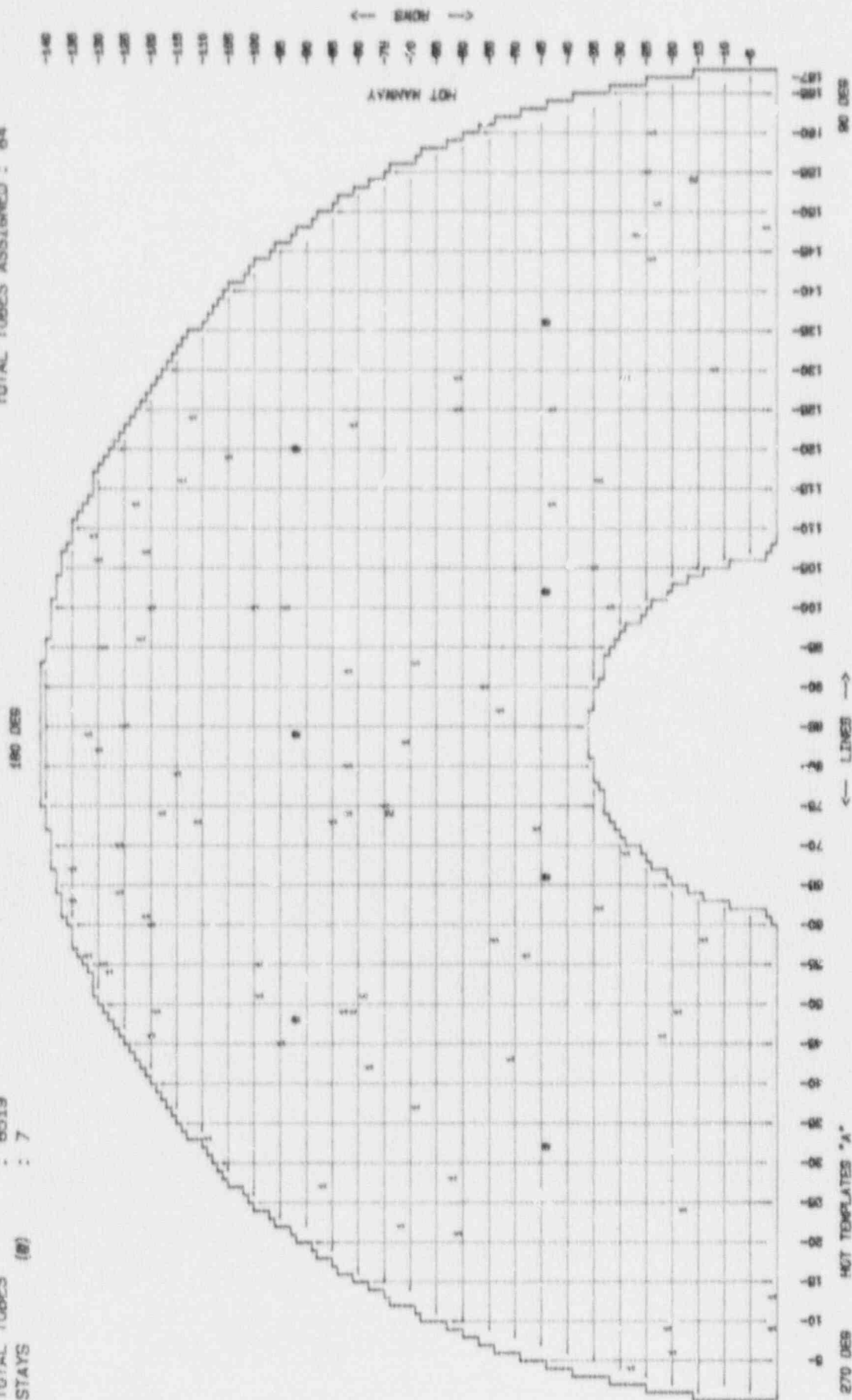
GENERATOR: 21

1 - 00 (862)

2 - 10 (22)

TOTAL TUBES : 8519
STAYS : 7

TOTAL TUBES ASSIGNED : 84



Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: 20-39% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
1	9	10/90	OD	0.50	TW	H3	+10.60
		10/90	OD	0.50	TW	H3	+18.00
1	13	10/90	OD	0.50	TW	C4	+ 8.30
		10/90	OD	0.58	TW	C4	+30.90
2	148	10/90	OD	0.96	TW	C4	+35.90
12	130	10/90	OD	1.09	TW	H2	+ 1.00
14	58	10/90	OD	0.49	TW	C4	+31.50
		10/90	OD	0.55	TW	C1S-SF	+17.90
16	154	10/90	ID	0.48	TW	C1S-SF	+ 4.80
18	24	10/90	OD	1.31	TW	H4	+18.60
		10/90	OD	0.63	TW	H4	+18.90
19	49	10/90	OD	0.56	TW	C2	+19.00
20	6	10/90	OD	0.85	TW	C2	+28.70
21	9	10/90	OD	0.83	TW	C1	+27.50
22	46	10/90	OD	1.11	TW	C1S-SF	+ 8.80
23	151	10/90	OD	0.72	TW	C5	+26.40
24	144	10/90	OD	0.53	TW	HTS-SF	+ 0.70
24	160	10/90	OD	0.72	TW	C1	+23.60
25	155	10/90	OD	0.95	TW	H2	+33.70
		10/90	OD	0.62	TW	H4	+11.80
27	147	10/90	OD	0.49	TW	C1S-SF	+ 4.70
28	4	10/90	OD	0.43	TW	H5	+17.00
29	69	10/90	OD	1.19	TW	H3	+20.20
30	129	10/90	OD	1.17	TW	C3	+ 8.00
31	100	10/90	OD	0.90	TW	C4	+33.40
34	62	10/90	OD	0.74	TW	C4	+34.50
34	116	10/90	OD	0.66	TW	H4	+25.10
		10/90	OD	0.75	TW	C4	+20.80
35	105	10/90	OD	0.55	TW	H3	+26.00
43	113	10/90	OD	0.83	TW	HTS-SF	+36.80
43	125	10/90	OD	1.70	TW	C1	
46	72	10/90	OD	1.43	TW	H1	+24.70
48	56	10/90	OD	0.74	TW	HTS-SF	+ 1.01
51	43	10/90	OD	0.55	TW	H2	+29.21
53	87	10/90	OD	0.71	TW	C3	+30.00
54	58	10/90	OD	0.72	TW	C4	+38.70
56	90	10/90	OD	1.74	TW	H3	+35.00
61	21	10/90	OD	0.60	TW	HTS-SF	+32.00
61	125	10/90	OD	0.73	TW	H1	+18.80
61	129	10/90	OD	0.43	TW	HTS-SF	+ 0.30
62	28	10/90	OD	1.03	TW	C5	+10.66
69	37	10/90	OD	0.70	TW	H3	+14.47
69	93	10/90	OD	0.60	TW	HTS-SF	+ 1.00
71	83	10/90	OD	0.63	TW	C7	+15.10
		10/90	OD	0.55	TW	HTS-SF	+ 0.80
72	22	10/90	OD	0.60	TW	VM	+19.90
74	74	10/90	ID	1.51	TW	HTS-SF	+27.20
75	75	10/90	OD	0.56	TW	HTS-SF	+ 0.30
78	42	10/90	OD	0.90	TW	C5	+ 1.77
79	51	10/90	OD	0.54	TW	H2	+25.65
81	49	10/90	OD	0.47	TW	HTS-SF	+ 0.76
81	123	10/90	OD	0.72	TW	C1	+25.50
82	74	10/90	OD	0.74	TW	C4	+11.90
83	80	10/90	OD	0.49	TW	HTS-SF	+ 0.70
83	92	10/90	OD	0.38	TW	HTS-SF	+ 0.50
83	49	10/90	OD	0.70	TW	HTS-SF	+ 0.76
85	73	10/90	OD	0.43	TW	C1S-SF	+11.90
87	27	10/90	OD	0.72	TW	H3	+ 6.60
94	100	10/90	OD	2.35	TW	C4	+ 5.80
95	45	10/90	OD	0.56	TW	H1	+26.80
99	51	10/90	OD	0.52	TW	C5	+14.50
99	55	10/90	OD	0.69	TW	C8	+20.60
100	100	10/90	OD	0.58	TW	C3	+16.50
105	119	10/90	OD	1.08	TW	C1S-SF	+ 1.00
109	33	10/90	OD	1.14	TW	C7	+22.50
111	73	10/90	OD	0.67	TW	H3	+29.80
112	124	10/90	OD	0.76	TW	C3	+ 3.40

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 21

QUERY: 20-39% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
114	116	10/90	OD	3.33	% TW	0.50 HTS-SF	+ 6.40
115	79	10/90	OD	3.77	% TW	1.15 H3	+26.20
116	74	10/90	OD	3.55	% TW	0.95 H2	+27.20
117	49	10/90	OD	3.43	% TW	0.61 H2	+25.40
118	46	10/90	OD	3.58	% TW	0.76 CTS-SF	+ 1.30
119	60	10/90	OD	3.55	% TW	1.05 CTS-SF	+ 1.20
120	100	10/90	OD	3.77	% TW	1.33 VH	+12.80
121	61	10/90	OD	3.33	% TW	0.53 DH	+18.10
122	107	10/90	OD	3.44	% TW	0.47 CTS-SF	+ 1.80
123	96	10/90	OD	3.55	% TW	0.56 HTS-SF	+23.10
124	113	10/90	OD	3.55	% TW	0.64 H3	+27.50
125	85	10/90	OD	3.11	% TW	0.73 C8	+20.60
126	64	10/90	OD	3.11	% TW	0.76 C1	+25.80
127	70	10/90	OD	3.56	% TW	0.84 H9	+12.90
128	54	10/90	OD	3.56	% TW	0.76 HTS-SF	+ 6.90
129	55	10/90	OD	3.56	% TW	0.88 HTS-SF	+11.80
130	95	10/90	OD	3.49	% TW	1.11 C6	+ 9.10
131	82	10/90	OD	3.49	% TW	1.02 C2	+11.80
132	106	10/90	OD	3.49	% TW	1.11 C2	+33.20
133	109	10/90	OD	3.49	% TW	0.69 C10	+30.90
134	56	10/90	OD	3.56	% TW	0.80 HTS-SF	+ 6.70
135	84	10/90	OD	3.56	% TW	0.73 H3	+ 7.00
136	107	10/90	OD	3.56	% TW	1.25 C3	+ 4.90
137	63	10/90	OD	3.56	% TW	1.42 C1	+36.90
138	67	10/90	OD	3.44	% TW	1.62 CTS-SF	+17.50
139	107	10/90	OD	3.44	% TW	0.92 H5	+ 1.70
140	107	10/90	OD	3.44	% TW	1.18 H6	+17.50

TOTAL TUBES FOUND = 84
 TOTAL INDICATIONS FOUND = 94

TOTAL TUBES IN INPUT FILE = 8519
 TOTAL TUBES INSPECTED = 1422

STEAM GENERATOR 21

D. List with Plot of All Tubes Examined

Tubes INSPECTED Eddy Current with 8089IN Coil

PLANT: CALVERT CLIFFS UNIT 2
OUTAGE: 10/90

GENERATOR 21

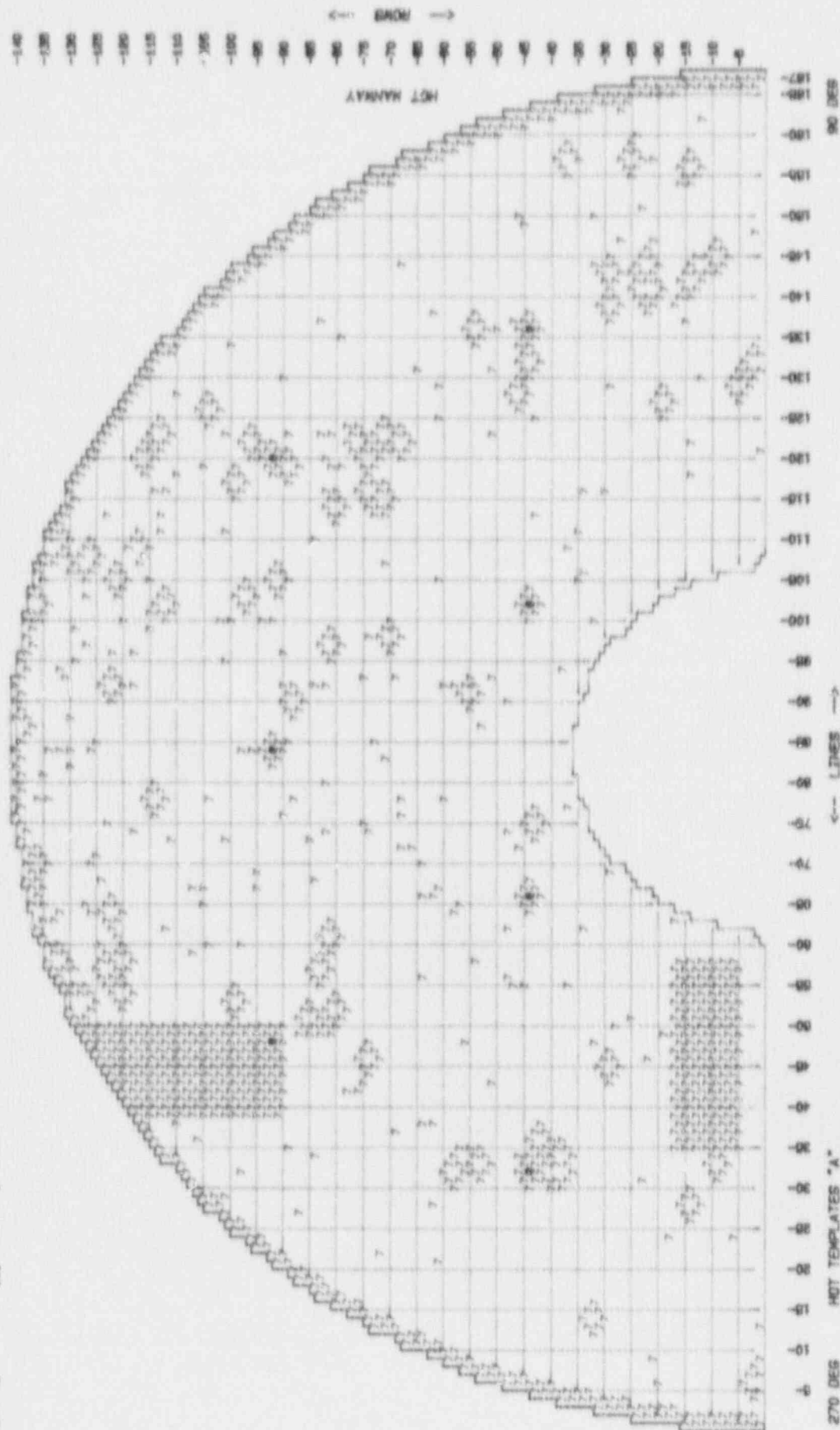
OUTAGE: 10/90

7 - Outage : 10/90 (1.422)

TOTAL TUBES	:	2519
STAYS	:	7

STAYS (2)

TOTAL TUBES ASSIGNED : 1422



Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 31

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
6	58	10/90	F/L
6	128	10/90	F/L
6	130	10/90	F/L
6	166	10/90	F/L
7	1	10/90	F/L
7	33	10/90	F/L
7	35	10/90	F/L
7	37	10/90	F/L
7	39	10/90	F/L
7	41	10/90	F/L
7	43	10/90	F/L
7	45	10/90	F/L
7	47	10/90	F/L
7	49	10/90	F/L
7	51	10/90	F/L
7	53	10/90	F/L
7	55	10/90	F/L
7	57	10/90	F/L
7	129	10/90	F/L
7	145	10/90	F/L
7	167	10/90	F/L
8	2	10/90	F/L
8	32	10/90	F/L
8	34	10/90	F/L
8	36	10/90	F/L
8	38	10/90	F/L
8	40	10/90	F/L
8	42	10/90	F/L
8	44	10/90	F/L
8	46	10/90	F/L
8	48	10/90	F/L
8	50	10/90	F/L
8	52	10/90	F/L
8	54	10/90	F/L
8	56	10/90	F/L
8	58	10/90	F/L
8	144	10/90	F/L
8	146	10/90	F/L
8	166	10/90	F/L
9	1	10/90	F/L
9	31	10/90	F/L
9	35	10/90	F/L
9	37	10/90	F/L
9	39	10/90	F/L
9	41	10/90	F/L
9	43	10/90	F/L
9	45	10/90	F/L
9	47	10/90	F/L
9	49	10/90	F/L
9	51	10/90	F/L
9	53	10/90	F/L
9	55	10/90	F/L
9	57	10/90	F/L
9	143	10/90	F/L
9	147	10/90	F/L
9	167	10/90	F/L
10	2	10/90	F/L
10	32	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LEN / TH INSPECTED</u>
10	34	2/90	F /
100	36	10/90	F /
100	38	10/90	F /
100	40	10/90	F /
100	42	10/90	F /
100	44	10/90	F /
100	46	10/90	F /
1000	48	10/90	F /
0000	50	10/90	F /
0000	52	10/90	F /
0000	54	10/90	F /
0000	56	10/90	F /
0000	58	10/90	F /
0000	60	10/90	F /
0000	62	10/90	F /
0000	64	10/90	F /
0000	66	10/90	F /
0000	68	10/90	F /
0000	70	10/90	F /
0000	72	10/90	F /
0000	74	10/90	F /
0000	76	10/90	F /
0000	78	10/90	F /
0000	80	10/90	F /
0000	82	10/90	F /
0000	84	10/90	F /
0000	86	10/90	F /
0000	88	10/90	F /
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0000	186	10/90	F /
0000	188	10/90	F /
0000	190	10/90	F /
0000	192	10/90	F /
0000	194	10/90	F /
0000	196	10/90	F /
0000	198	10/90	F /
0000	200	10/90	F /

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
16	2	10/90	F/L
16	28	10/90	F/L
16	36	10/90	F/L
16	38	10/90	F/L
16	40	10/90	F/L
16	42	10/90	F/L
16	44	10/90	F/L
16	46	10/90	F/L
16	48	10/90	F/L
16	50	10/90	F/L
16	52	10/90	F/L
16	54	10/90	F/L
16	56	10/90	F/L
16	58	10/90	F/L
16	140	10/90	F/L
16	142	10/90	F/L
16	154	10/90	F/L
16	156	10/90	F/L
16	166	10/90	F/L
17	3	10/90	F/L
17	35	10/90	F/L
17	37	10/90	F/L
17	39	10/90	F/L
17	41	10/90	F/L
17	43	10/90	F/L
17	45	10/90	F/L
17	47	10/90	F/L
17	49	10/90	F/L
17	51	10/90	F/L
17	53	10/90	F/L
17	55	10/90	F/L
17	57	10/90	F/L
17	63	10/90	F/L
17	127	10/90	F/L
17	139	10/90	F/L
17	165	10/90	F/L
18	2	10/90	F/L
18	24	10/90	F/L
18	126	10/90	F/L
18	128	10/90	F/L
18	166	10/90	F/L
19	3	10/90	F/L
19	49	10/90	F/L
19	125	10/90	F/L
19	129	10/90	F/L
19	141	10/90	F/L
19	165	10/90	F/L
20	2	10/90	F/L
20	6	10/90	F/L
20	126	10/90	F/L
20	128	10/90	F/L
20	140	10/90	F/L
20	142	10/90	F/L
20	144	10/90	F/L
20	166	10/90	F/L
21	3	10/90	F/L
21	9	10/90	F/L
21	127	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
21	139	10/90	F/L
21	143	10/90	F/L
21	145	10/90	F/L
21	147	10/90	F/L
21	157	10/90	F/L
21	165	10/90	F/L
22	2	10/90	F/L
22	46	10/90	F/L
22	138	10/90	F/L
22	140	10/90	F/L
22	142	10/90	F/L
22	146	10/90	F/L
22	161	10/90	F/L
22	3	10/90	F/L
22	31	10/90	F/L
22	139	10/90	F/L
22	143	10/90	F/L
22	145	10/90	F/L
22	151	10/90	F/L
22	157	10/90	F/L
22	165	10/90	F/L
22	2	10/90	F/L
22	140	10/90	F/L
22	142	10/90	F/L
22	144	10/90	F/L
22	156	10/90	F/L
22	158	10/90	F/L
22	160	10/90	F/L
22	166	10/90	F/L
22	3	10/90	F/L
22	51	10/90	F/L
22	141	10/90	F/L
22	143	10/90	F/L
22	155	10/90	F/L
22	159	10/90	F/L
22	165	10/90	F/L
22	4	10/90	F/L
22	156	10/90	F/L
22	158	10/90	F/L
22	164	10/90	F/L
22	3	10/90	F/L
22	45	10/90	F/L
22	139	10/90	F/L
22	143	10/90	F/L
22	147	10/90	F/L
22	157	10/90	F/L
22	163	10/90	F/L
22	165	10/90	F/L
22	4	10/90	F/L
22	44	10/90	F/L
22	46	10/90	F/L
22	50	10/90	F/L
22	138	10/90	F/L
22	140	10/90	F/L
22	142	10/90	F/L
22	144	10/90	F/L
22	164	10/90	F/L
29	3	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
29	43	10/90	F/L
29	47	10/90	F/L
29	69	10/90	F/L
29	129	10/90	F/L
29	137	10/90	F/L
29	141	10/90	F/L
29	145	10/90	F/L
29	165	10/90	F/L
30	4	10/90	F/L
30	14	10/90	F/L
30	44	10/90	F/L
30	44	10/90	F/L
30	116	10/90	F/L
30	138	10/90	F/L
30	140	10/90	F/L
30	142	10/90	F/L
30	144	10/90	F/L
30	164	10/90	F/L
31	3	10/90	F/L
31	13	10/90	F/L
31	15	10/90	F/L
31	45	10/90	F/L
31	139	10/90	F/L
31	143	10/90	F/L
31	165	10/90	F/L
32	4	10/90	F/L
32	12	10/90	F/L
32	16	10/90	F/L
32	48	10/90	F/L
32	100	10/90	F/L
32	144	10/90	F/L
32	150	10/90	F/L
32	164	10/90	F/L
32	5	10/90	F/L
32	13	10/90	F/L
32	15	10/90	F/L
32	163	10/90	F/L
32	4	10/90	F/L
32	14	10/90	F/L
32	62	10/90	F/L
32	106	10/90	F/L
32	116	10/90	F/L
32	164	10/90	F/L
32	5	10/90	F/L
32	105	10/90	F/L
32	111	10/90	F/L
32	157	10/90	F/L
32	163	10/90	F/L
32	4	10/90	F/L
32	32	10/90	F/L
32	34	10/90	F/L
32	158	10/90	F/L
32	164	10/90	F/L
32	5	10/90	F/L
32	31	10/90	F/L
32	33	10/90	F/L
32	35	10/90	F/L
32	35	10/90	F/L

Plant: CALVERTTM CLIFFS UNIT 2
 Outage: 10/90

Steam Generator. 21

Tube INSPECTED - Eddy Current
 EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
37	77	10/90	F/L
37	109	10/90	F/L
37	155	10/90	F/L
37	159	10/90	F/L
37	163	10/90	F/L
38	4	10/90	F/L
38	30	10/90	F/L
38	36	10/90	F/L
38	94	10/90	F/L
38	156	10/90	F/L
38	158	10/90	F/L
38	164	10/90	F/L
39	5	10/90	F/L
39	31	10/90	F/L
39	33	10/90	F/L
39	35	10/90	F/L
39	157	10/90	F/L
39	163	10/90	F/L
40	6	10/90	F/L
40	30	10/90	F/L
40	34	10/90	F/L
40	36	10/90	F/L
40	162	10/90	F/L
41	5	10/90	F/L
41	31	10/90	F/L
41	33	10/90	F/L
41	35	10/90	F/L
41	37	10/90	F/L
41	75	10/90	F/L
41	163	10/90	F/L
42	6	10/90	F/L
42	32	10/90	F/L
42	34	10/90	F/L
42	38	10/90	F/L
42	66	10/90	F/L
42	74	10/90	F/L
42	76	10/90	F/L
42	102	10/90	F/L
42	132	10/90	F/L
42	136	10/90	F/L
42	162	10/90	F/L
43	5	10/90	F/L
43	31	10/90	F/L
43	33	10/90	F/L
43	35	10/90	F/L
43	37	10/90	F/L
43	65	10/90	F/L
43	67	10/90	F/L
43	73	10/90	F/L
43	77	10/90	F/L
43	101	10/90	F/L
43	103	10/90	F/L
43	113	10/90	F/L
43	125	10/90	F/L
43	131	10/90	F/L
43	133	10/90	F/L
43	135	10/90	F/L
43	137	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
43	163	10/90	F/L
44	6	10/90	F/L
44	30	10/90	F/L
44	34	10/90	F/L
44	36	10/90	F/L
44	64	10/90	F/L
44	68	10/90	F/L
44	74	10/90	F/L
44	76	10/90	F/L
44	100	10/90	F/L
44	104	10/90	F/L
44	128	10/90	F/L
44	130	10/90	F/L
44	134	10/90	F/L
44	138	10/90	F/L
44	162	10/90	F/L
45	7	10/90	F/L
45	31	10/90	F/L
45	33	10/90	F/L
45	55	10/90	F/L
45	65	10/90	F/L
45	67	10/90	F/L
45	75	10/90	F/L
45	101	10/90	F/L
45	103	10/90	F/L
45	127	10/90	F/L
45	129	10/90	F/L
45	131	10/90	F/L
45	133	10/90	F/L
45	135	10/90	F/L
45	137	10/90	F/L
45	149	10/90	F/L
45	161	10/90	F/L
46	6	10/90	F/L
46	32	10/90	F/L
46	34	10/90	F/L
46	66	10/90	F/L
46	72	10/90	F/L
46	102	10/90	F/L
46	126	10/90	F/L
46	130	10/90	F/L
46	132	10/90	F/L
46	134	10/90	F/L
46	136	10/90	F/L
46	150	10/90	F/L
46	162	10/90	F/L
47	7	10/90	F/L
47	55	10/90	F/L
47	127	10/90	F/L
47	129	10/90	F/L
47	137	10/90	F/L
47	161	10/90	F/L
48	6	10/90	F/L
48	56	10/90	F/L
48	62	10/90	F/L
48	74	10/90	F/L
48	90	10/90	F/L
48	128	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
48	162	10/90	F/L
49	7	10/90	F/L
49	161	10/90	F/L
50	8	10/90	F/L
50	136	10/90	F/L
50	160	10/90	F/L
51	7	10/90	F/L
51	33	10/90	F/L
51	43	10/90	F/L
51	93	10/90	F/L
51	123	10/90	F/L
51	131	10/90	F/L
51	161	10/90	F/L
52	8	10/90	F/L
53	32	10/90	F/L
53	34	10/90	F/L
53	136	10/90	F/L
53	160	10/90	F/L
53	7	10/90	F/L
53	31	10/90	F/L
53	35	10/90	F/L
53	87	10/90	F/L
53	91	10/90	F/L
53	135	10/90	F/L
53	137	10/90	F/L
53	161	10/90	F/L
54	8	10/90	F/L
54	32	10/90	F/L
54	34	10/90	F/L
54	58	10/90	F/L
54	90	10/90	F/L
54	92	10/90	F/L
54	134	10/90	F/L
54	138	10/90	F/L
54	160	10/90	F/L
55	9	10/90	F/L
55	33	10/90	F/L
55	35	10/90	F/L
55	89	10/90	F/L
55	93	10/90	F/L
55	135	10/90	F/L
55	137	10/90	F/L
55	159	10/90	F/L
56	8	10/90	F/L
56	32	10/90	F/L
56	48	10/90	F/L
56	90	10/90	F/L
56	92	10/90	F/L
56	136	10/90	F/L
56	160	10/90	F/L
57	9	10/90	F/L
57	31	10/90	F/L
57	33	10/90	F/L
57	35	10/90	F/L
57	65	10/90	F/L
57	91	10/90	F/L
57	159	10/90	F/L
58	10	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
58	30	10/90	F/L
58	34	10/90	F/L
58	64	10/90	F/L
58	92	10/90	F/L
58	158	10/90	F/L
59	9	10/90	F/L
59	31	10/90	F/L
59	33	10/90	F/L
59	159	10/90	F/L
60	10	10/90	F/L
60	32	10/90	F/L
60	78	10/90	F/L
60	92	10/90	F/L
60	158	10/90	F/L
61	11	10/90	F/L
61	21	10/90	F/L
61	67	10/90	F/L
61	105	10/90	F/L
61	125	10/90	F/L
61	129	10/90	F/L
61	157	10/90	F/L
62	10	10/90	F/L
62	28	10/90	F/L
62	38	10/90	F/L
62	66	10/90	F/L
62	138	10/90	F/L
62	158	10/90	F/L
63	11	10/90	F/L
63	157	10/90	F/L
64	12	10/90	F/L
64	38	10/90	F/L
64	56	10/90	F/L
64	66	10/90	F/L
64	70	10/90	F/L
64	156	10/90	F/L
65	11	10/90	F/L
65	131	10/90	F/L
65	157	10/90	F/L
66	12	10/90	F/L
66	72	10/90	F/L
66	122	10/90	F/L
66	156	10/90	F/L
67	11	10/90	F/L
67	121	10/90	F/L
67	123	10/90	F/L
67	157	10/90	F/L
68	12	10/90	F/L
68	72	10/90	F/L
68	76	10/90	F/L
68	78	10/90	F/L
68	98	10/90	F/L
68	120	10/90	F/L
68	124	10/90	F/L
68	144	10/90	F/L
68	156	10/90	F/L
69	13	10/90	F/L
69	37	10/90	F/L
69	93	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
69	97	10/90	F/L
69	99	10/90	F/L
69	115	10/90	F/L
69	121	10/90	F/L
69	123	10/90	F/L
69	155	10/90	F/L
70	14	10/90	F/L
70	96	10/90	F/L
70	100	10/90	F/L
70	114	10/90	F/L
70	116	10/90	F/L
70	122	10/90	F/L
70	124	10/90	F/L
70	154	10/90	F/L
71	13	10/90	F/L
71	83	10/90	F/L
71	97	10/90	F/L
71	99	10/90	F/L
71	107	10/90	F/L
71	113	10/90	F/L
71	117	10/90	F/L
71	121	10/90	F/L
71	125	10/90	F/L
71	155	10/90	F/L
72	14	10/90	F/L
72	22	10/90	F/L
72	46	10/90	F/L
72	98	10/90	F/L
72	114	10/90	F/L
72	116	10/90	F/L
72	120	10/90	F/L
72	122	10/90	F/L
72	124	10/90	F/L
72	154	10/90	F/L
73	13	10/90	F/L
73	45	10/90	F/L
73	47	10/90	F/L
73	85	10/90	F/L
73	113	10/90	F/L
73	115	10/90	F/L
73	117	10/90	F/L
73	119	10/90	F/L
73	121	10/90	F/L
73	123	10/90	F/L
73	155	10/90	F/L
74	14	10/90	F/L
74	44	10/90	F/L
74	48	10/90	F/L
74	74	10/90	F/L
74	98	10/90	F/L
74	114	10/90	F/L
74	118	10/90	F/L
74	122	10/90	F/L
74	154	10/90	F/L
75	15	10/90	F/L
75	43	10/90	F/L
75	45	10/90	F/L
75	47	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
75	75	10/90	F/L
75	93	10/90	F/L
75	115	10/90	F/L
75	117	10/90	F/L
75	119	10/90	F/L
75	121	10/90	F/L
75	123	10/90	F/L
75	153	10/90	F/L
76	16	10/90	F/L
76	42	10/90	F/L
76	46	10/90	F/L
76	116	10/90	F/L
76	120	10/90	F/L
76	124	10/90	F/L
76	152	10/90	F/L
77	15	10/90	F/L
77	121	10/90	F/L
77	123	10/90	F/L
77	153	10/90	F/L
78	16	10/90	F/L
78	42	10/90	F/L
78	52	10/90	F/L
78	114	10/90	F/L
78	122	10/90	F/L
78	124	10/90	F/L
78	152	10/90	F/L
79	17	10/90	F/L
79	51	10/90	F/L
79	53	10/90	F/L
79	61	10/90	F/L
79	97	10/90	F/L
79	113	10/90	F/L
79	115	10/90	F/L
79	119	10/90	F/L
79	125	10/90	F/L
79	151	10/90	F/L
80	16	10/90	F/L
80	50	10/90	F/L
80	54	10/90	F/L
80	60	10/90	F/L
80	62	10/90	F/L
80	96	10/90	F/L
80	98	10/90	F/L
80	112	10/90	F/L
80	116	10/90	F/L
80	152	10/90	F/L
81	117	10/90	F/L
81	49	10/90	F/L
81	51	10/90	F/L
81	53	10/90	F/L
81	57	10/90	F/L
81	59	10/90	F/L
81	63	10/90	F/L
81	95	10/90	F/L
81	99	10/90	F/L
81	113	10/90	F/L
81	115	10/90	F/L
81	119	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
81	123	10/90	F/L
81	151	10/90	F/L
82	18	10/90	F/L
82	50	10/90	F/L
82	52	10/90	F/L
82	56	10/90	F/L
82	58	10/90	F/L
82	60	10/90	F/L
82	62	10/90	F/L
82	74	10/90	F/L
82	80	10/90	F/L
82	92	10/90	F/L
82	96	10/90	F/L
82	98	10/90	F/L
82	114	10/90	F/L
82	116	10/90	F/L
82	120	10/90	F/L
82	150	10/90	F/L
83	17	10/90	F/L
83	19	10/90	F/L
83	49	10/90	F/L
83	51	10/90	F/L
83	55	10/90	F/L
83	59	10/90	F/L
83	61	10/90	F/L
83	97	10/90	F/L
83	123	10/90	F/L
83	137	10/90	F/L
83	151	10/90	F/L
84	18	10/90	F/L
84	34	10/90	F/L
84	50	10/90	F/L
84	52	10/90	F/L
84	56	10/90	F/L
84	58	10/90	F/L
84	68	10/90	F/L
84	92	10/90	F/L
84	110	10/90	F/L
84	150	10/90	F/L
85	19	10/90	F/L
85	49	10/90	F/L
85	53	10/90	F/L
85	57	10/90	F/L
85	73	10/90	F/L
85	149	10/90	F/L
86	20	10/90	F/L
86	50	10/90	F/L
86	52	10/90	F/L
86	90	10/90	F/L
86	148	10/90	F/L
87	19	10/90	F/L
87	27	10/90	F/L
87	49	10/90	F/L
87	51	10/90	F/L
87	89	10/90	F/L
87	91	10/90	F/L
87	119	10/90	F/L
87	149	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
88	20	10/90	F/L
88	78	10/90	F/L
88	88	10/90	F/L
88	92	10/90	F/L
88	118	10/90	F/L
88	120	10/90	F/L
88	148	10/90	F/L
89	21	10/90	F/L
89	35	10/90	F/L
89	85	10/90	F/L
89	89	10/90	F/L
89	91	10/90	F/L
89	105	10/90	F/L
89	117	10/90	F/L
89	121	10/90	F/L
89	123	10/90	F/L
89	147	10/90	F/L
90	22	10/90	F/L
90	40	10/90	F/L
90	42	10/90	F/L
90	44	10/90	F/L
90	46	10/90	F/L
90	48	10/90	F/L
90	50	10/90	F/L
90	76	10/90	F/L
90	84	10/90	F/L
90	90	10/90	F/L
90	92	10/90	F/L
90	96	10/90	F/L
90	104	10/90	F/L
90	106	10/90	F/L
90	118	10/90	F/L
90	120	10/90	F/L
90	130	10/90	F/L
90	146	10/90	F/L
91	21	10/90	F/L
91	39	10/90	F/L
91	41	10/90	F/L
91	43	10/90	F/L
91	45	10/90	F/L
91	47	10/90	F/L
91	49	10/90	F/L
91	83	10/90	F/L
91	85	10/90	F/L
91	103	10/90	F/L
91	107	10/90	F/L
91	119	10/90	F/L
91	121	10/90	F/L
91	147	10/90	F/L
92	22	10/90	F/L
92	40	10/90	F/L
92	42	10/90	F/L
92	44	10/90	F/L
92	46	10/90	F/L
92	50	10/90	F/L
92	82	10/90	F/L
92	86	10/90	F/L
92	100	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - F3dy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
92	104	10/90	F/L
92	106	10/90	F/L
92	118	10/90	F/L
92	122	10/90	F/L
92	145	10/90	F/L
93	23	10/90	F/L
93	39	10/90	F/L
93	41	10/90	F/L
93	43	10/90	F/L
93	45	10/90	F/L
93	47	10/90	F/L
93	49	10/90	F/L
93	83	10/90	F/L
93	85	10/90	F/L
93	105	10/90	F/L
93	119	10/90	F/L
93	121	10/90	F/L
93	145	10/90	F/L
94	24	10/90	F/L
94	40	10/90	F/L
94	42	10/90	F/L
94	44	10/90	F/L
94	46	10/90	F/L
94	48	10/90	F/L
94	50	10/90	F/L
94	84	10/90	F/L
94	100	10/90	F/L
94	120	10/90	F/L
94	122	10/90	F/L
94	144	10/90	F/L
95	23	10/90	F/L
95	39	10/90	F/L
95	41	10/90	F/L
95	43	10/90	F/L
95	45	10/90	F/L
95	47	10/90	F/L
95	49	10/90	F/L
95	67	10/90	F/L
95	69	10/90	F/L
95	103	10/90	F/L
95	121	10/90	F/L
95	123	10/90	F/L
95	145	10/90	F/L
96	24	10/90	F/L
96	40	10/90	F/L
96	42	10/90	F/L
96	44	10/90	F/L
96	46	10/90	F/L
96	48	10/90	F/L
96	50	10/90	F/L
96	84	10/90	F/L
96	102	10/90	F/L
96	104	10/90	F/L
96	120	10/90	F/L
96	124	10/90	F/L
96	144	10/90	F/L
97	25	10/90	F/L
97	39	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
 EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
97	41	10/90	F/L
97	43	10/90	F/L
97	45	10/90	F/L
97	47	10/90	F/L
97	49	10/90	F/L
97	53	10/90	F/L
97	101	10/90	F/L
97	105	10/90	F/L
97	117	10/90	F/L
97	121	10/90	F/L
97	123	10/90	F/L
97	142	10/90	F/L
98	26	10/90	F/L
98	32	10/90	F/L
98	40	10/90	F/L
98	42	10/90	F/L
98	44	10/90	F/L
98	46	10/90	F/L
98	48	10/90	F/L
98	50	10/90	F/L
98	52	10/90	F/L
98	54	10/90	F/L
98	60	10/90	F/L
98	84	10/90	F/L
98	102	10/90	F/L
98	104	10/90	F/L
98	116	10/90	F/L
98	118	10/90	F/L
98	122	10/90	F/L
98	142	10/90	F/L
99	25	10/90	F/L
99	39	10/90	F/L
99	41	10/90	F/L
99	43	10/90	F/L
99	45	10/90	F/L
99	47	10/90	F/L
99	49	10/90	F/L
99	51	10/90	F/L
99	55	10/90	F/L
99	103	10/90	F/L
99	115	10/90	F/L
99	119	10/90	F/L
99	143	10/90	F/L
100	26	10/90	F/L
100	40	10/90	F/L
100	42	10/90	F/L
100	44	10/90	F/L
100	46	10/90	F/L
100	48	10/90	F/L
100	50	10/90	F/L
100	52	10/90	F/L
100	54	10/90	F/L
100	100	10/90	F/L
100	116	10/90	F/L
100	118	10/90	F/L
100	134	10/90	F/L
100	142	10/90	F/L
101	27	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
101	29	10/90	F/L
101	39	10/90	F/L
101	41	10/90	F/L
101	43	10/90	F/L
101	45	10/90	F/L
101	47	10/90	F/L
101	49	10/90	F/L
101	53	10/90	F/L
101	73	10/90	F/L
101	95	10/90	F/L
101	111	10/90	F/L
101	117	10/90	F/L
101	123	10/90	F/L
101	141	10/90	F/L
102	28	10/90	F/L
102	40	10/90	F/L
102	42	10/90	F/L
102	44	10/90	F/L
102	46	10/90	F/L
102	48	10/90	F/L
102	50	10/90	F/L
102	100	10/90	F/L
102	126	10/90	F/L
102	140	10/90	F/L
103	29	10/90	F/L
103	39	10/90	F/L
103	41	10/90	F/L
103	43	10/90	F/L
103	45	10/90	F/L
103	47	10/90	F/L
103	49	10/90	F/L
103	125	10/90	F/L
103	127	10/90	F/L
103	139	10/90	F/L
104	28	10/90	F/L
104	40	10/90	F/L
104	42	10/90	F/L
104	44	10/90	F/L
104	46	10/90	F/L
104	48	10/90	F/L
104	50	10/90	F/L
104	60	10/90	F/L
104	78	10/90	F/L
104	124	10/90	F/L
104	128	10/90	F/L
104	140	10/90	F/L
105	29	10/90	F/L
105	39	10/90	F/L
105	41	10/90	F/L
105	43	10/90	F/L
105	45	10/90	F/L
105	47	10/90	F/L
105	49	10/90	F/L
105	65	10/90	F/L
105	67	10/90	F/L
105	119	10/90	F/L
105	125	10/90	F/L
105	127	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
105	139	10/90	F/L
106	30	10/90	F/L
106	36	10/90	F/L
106	40	10/90	F/L
106	42	10/90	F/L
106	44	10/90	F/L
106	46	10/90	F/L
106	48	10/90	F/L
106	50	10/90	F/L
106	136	10/90	F/L
106	138	10/90	F/L
107	31	10/90	F/L
107	39	10/90	F/L
107	41	10/90	F/L
107	43	10/90	F/L
107	45	10/90	F/L
107	47	10/90	F/L
107	49	10/90	F/L
107	59	10/90	F/L
107	67	10/90	F/L
107	137	10/90	F/L
108	32	10/90	F/L
108	40	10/90	F/L
108	42	10/90	F/L
108	44	10/90	F/L
108	46	10/90	F/L
108	48	10/90	F/L
108	50	10/90	F/L
108	136	10/90	F/L
109	33	10/90	F/L
109	39	10/90	F/L
109	41	10/90	F/L
109	43	10/90	F/L
109	45	10/90	F/L
109	47	10/90	F/L
109	49	10/90	F/L
109	135	10/90	F/L
110	34	10/90	F/L
110	38	10/90	F/L
110	40	10/90	F/L
110	42	10/90	F/L
110	44	10/90	F/L
110	46	10/90	F/L
110	48	10/90	F/L
110	50	10/90	F/L
110	102	10/90	F/L
110	118	10/90	F/L
110	128	10/90	F/L
110	134	10/90	F/L
111	39	10/90	F/L
111	41	10/90	F/L
111	43	10/90	F/L
111	45	10/90	F/L
111	47	10/90	F/L
111	49	10/90	F/L
111	73	10/90	F/L
111	101	10/90	F/L
111	103	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
 EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
111	123	10/90	F/L
111	133	10/90	F/L
112	34	10/90	F/L
112	40	10/90	F/L
112	42	10/90	F/L
112	44	10/90	F/L
112	46	10/90	F/L
112	48	10/90	F/L
112	50	10/90	F/L
112	62	10/90	F/L
112	78	10/90	F/L
112	100	10/90	F/L
112	104	10/90	F/L
112	116	10/90	F/L
112	122	10/90	F/L
112	124	10/90	F/L
112	134	10/90	F/L
112	135	10/90	F/L
112	39	10/90	F/L
112	41	10/90	F/L
112	43	10/90	F/L
112	45	10/90	F/L
112	47	10/90	F/L
112	49	10/90	F/L
112	77	10/90	F/L
112	79	10/90	F/L
112	101	10/90	F/L
112	103	10/90	F/L
112	111	10/90	F/L
112	113	10/90	F/L
112	121	10/90	F/L
112	125	10/90	F/L
112	133	10/90	F/L
114	36	10/90	F/L
114	40	10/90	F/L
114	42	10/90	F/L
114	44	10/90	F/L
114	46	10/90	F/L
114	48	10/90	F/L
114	50	10/90	F/L
114	76	10/90	F/L
114	80	10/90	F/L
114	102	10/90	F/L
114	116	10/90	F/L
114	120	10/90	F/L
114	122	10/90	F/L
114	124	10/90	F/L
114	132	10/90	F/L
115	37	10/90	F/L
115	39	10/90	F/L
115	41	10/90	F/L
115	43	10/90	F/L
115	45	10/90	F/L
115	47	10/90	F/L
115	49	10/90	F/L
115	77	10/90	F/L
115	79	10/90	F/L
115	99	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
115	101	10/90	F/L
115	105	10/90	F/L
115	109	10/90	F/L
115	119	10/90	F/L
115	121	10/90	F/L
115	123	10/90	F/L
115	131	10/90	F/L
116	38	10/90	F/L
116	40	10/90	F/L
116	42	10/90	F/L
116	44	10/90	F/L
116	46	10/90	F/L
116	48	10/90	F/L
116	50	10/90	F/L
116	78	10/90	F/L
116	108	10/90	F/L
116	110	10/90	F/L
116	118	10/90	F/L
116	122	10/90	F/L
116	130	10/90	F/L
117	39	10/90	F/L
117	41	10/90	F/L
117	43	10/90	F/L
117	45	10/90	F/L
117	47	10/90	F/L
117	49	10/90	F/L
117	107	10/90	F/L
117	111	10/90	F/L
117	119	10/90	F/L
117	121	10/90	F/L
117	123	10/90	F/L
118	40	10/90	F/L
118	42	10/90	F/L
118	44	10/90	F/L
118	46	10/90	F/L
118	48	10/90	F/L
118	50	10/90	F/L
118	54	10/90	F/L
118	58	10/90	F/L
118	74	10/90	F/L
118	92	10/90	F/L
118	96	10/90	F/L
118	110	10/90	F/L
118	130	10/90	F/L
118	128	10/90	F/L
119	41	10/90	F/L
119	43	10/90	F/L
119	45	10/90	F/L
119	47	10/90	F/L
119	49	10/90	F/L
119	53	10/90	F/L
119	55	10/90	F/L
119	57	10/90	F/L
119	59	10/90	F/L
119	105	10/90	F/L
119	109	10/90	F/L
119	127	10/90	F/L
120	42	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
120	44	10/90	F/L
120	46	10/90	F/L
120	48	10/90	F/L
120	50	10/90	F/L
120	52	10/90	F/L
120	56	10/90	F/L
120	60	10/90	F/L
120	64	10/90	F/L
120	92	10/90	F/L
120	100	10/90	F/L
120	104	10/90	F/L
120	106	10/90	F/L
120	126	10/90	F/L
121	43	10/90	F/L
121	45	10/90	F/L
121	47	10/90	F/L
121	49	10/90	F/L
121	53	10/90	F/L
121	55	10/90	F/L
121	57	10/90	F/L
121	59	10/90	F/L
121	61	10/90	F/L
121	63	10/90	F/L
121	65	10/90	F/L
121	91	10/90	F/L
121	93	10/90	F/L
121	103	10/90	F/L
121	107	10/90	F/L
121	125	10/90	F/L
122	44	10/90	F/L
122	46	10/90	F/L
122	48	10/90	F/L
122	50	10/90	F/L
122	54	10/90	F/L
122	56	10/90	F/L
122	58	10/90	F/L
122	62	10/90	F/L
122	66	10/90	F/L
122	90	10/90	F/L
122	94	10/90	F/L
122	96	10/90	F/L
122	104	10/90	F/L
122	106	10/90	F/L
122	124	10/90	F/L
123	45	10/90	F/L
123	47	10/90	F/L
123	49	10/90	F/L
123	55	10/90	F/L
123	59	10/90	F/L
123	63	10/90	F/L
123	65	10/90	F/L
123	75	10/90	F/L
123	91	10/90	F/L
123	93	10/90	F/L
123	105	10/90	F/L
123	113	10/90	F/L
123	123	10/90	F/L
124	46	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
124	48	10/90	F/L
124	50	10/90	F/L
124	56	10/90	F/L
124	58	10/90	F/L
124	60	10/90	F/L
124	64	10/90	F/L
124	68	10/90	F/L
124	92	10/90	F/L
124	108	10/90	F/L
124	122	10/90	F/L
124	47	10/90	F/L
125	49	10/90	F/L
125	53	10/90	F/L
125	57	10/90	F/L
125	71	10/90	F/L
125	85	10/90	F/L
125	107	10/90	F/L
125	109	10/90	F/L
125	121	10/90	F/L
126	48	10/90	F/L
126	50	10/90	F/L
126	52	10/90	F/L
126	54	10/90	F/L
126	64	10/90	F/L
126	70	10/90	F/L
126	84	10/90	F/L
126	106	10/90	F/L
126	110	10/90	F/L
126	120	10/90	F/L
127	49	10/90	F/L
127	51	10/90	F/L
127	55	10/90	F/L
127	65	10/90	F/L
127	97	10/90	F/L
127	103	10/90	F/L
127	105	10/90	F/L
127	109	10/90	F/L
127	119	10/90	F/L
128	50	10/90	F/L
128	54	10/90	F/L
128	106	10/90	F/L
128	108	10/90	F/L
128	118	10/90	F/L
129	51	10/90	F/L
129	55	10/90	F/L
129	57	10/90	F/L
129	95	10/90	F/L
129	99	10/90	F/L
129	107	10/90	F/L
129	115	10/90	F/L
129	117	10/90	F/L
130	52	10/90	F/L
130	54	10/90	F/L
130	56	10/90	F/L
130	82	10/90	F/L
130	84	10/90	F/L
130	88	10/90	F/L
130	106	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
130	108	10/90	F/L
130	110	10/90	F/L
130	114	10/90	F/L
130	116	10/90	F/L
130	55	10/90	F/L
131	57	10/90	F/L
131	59	10/90	F/L
131	93	10/90	F/L
131	109	10/90	F/L
131	111	10/90	F/L
131	113	10/90	F/L
131	56	10/90	F/L
131	60	10/90	F/L
131	64	10/90	F/L
131	84	10/90	F/L
131	94	10/90	F/L
131	108	10/90	F/L
131	112	10/90	F/L
131	57	10/90	F/L
131	59	10/90	F/L
131	63	10/90	F/L
131	107	10/90	F/L
131	111	10/90	F/L
131	58	10/90	F/L
131	60	10/90	F/L
131	70	10/90	F/L
131	78	10/90	F/L
131	84	10/90	F/L
131	102	10/90	F/L
131	108	10/90	F/L
131	110	10/90	F/L
131	61	10/90	F/L
131	63	10/90	F/L
131	65	10/90	F/L
131	67	10/90	F/L
131	69	10/90	F/L
131	71	10/90	F/L
131	81	10/90	F/L
131	101	10/90	F/L
131	103	10/90	F/L
131	105	10/90	F/L
131	107	10/90	F/L
131	62	10/90	F/L
131	66	10/90	F/L
131	68	10/90	F/L
131	72	10/90	F/L
131	78	10/90	F/L
131	100	10/90	F/L
131	104	10/90	F/L
131	106	10/90	F/L
131	65	10/90	F/L
131	67	10/90	F/L
131	69	10/90	F/L
131	71	10/90	F/L
131	87	10/90	F/L
131	97	10/90	F/L
131	99	10/90	F/L
131	101	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
137	102	10/90	F/L
138	68	10/90	F/L
138	70	10/90	F/L
138	72	10/90	F/L
138	74	10/90	F/L
138	86	10/90	F/L
138	88	10/90	F/L
138	94	10/90	F/L
138	96	10/90	F/L
138	98	10/90	F/L
138	100	10/90	F/L
139	73	10/90	F/L
139	75	10/90	F/L
139	77	10/90	F/L
139	79	10/90	F/L
139	81	10/90	F/L
139	83	10/90	F/L
139	85	10/90	F/L
139	89	10/90	F/L
139	91	10/90	F/L
139	93	10/90	F/L
139	95	10/90	F/L
140	76	10/90	F/L
140	78	10/90	F/L
140	80	10/90	F/L
140	82	10/90	F/L
140	84	10/90	F/L
140	88	10/90	F/L
140	90	10/90	F/L
140	92	10/90	F/L

Outage : 10/90

Total = 1422

STEAM GENERATOR 21

E. List with Plot of Tubes Dented

ALL DENT INDICATIONS - ALL ELEVATIONS

PLANT: CALVERT CLIFFS UNIT 2

GENERATOR: 21

OUTAGE: 10/90

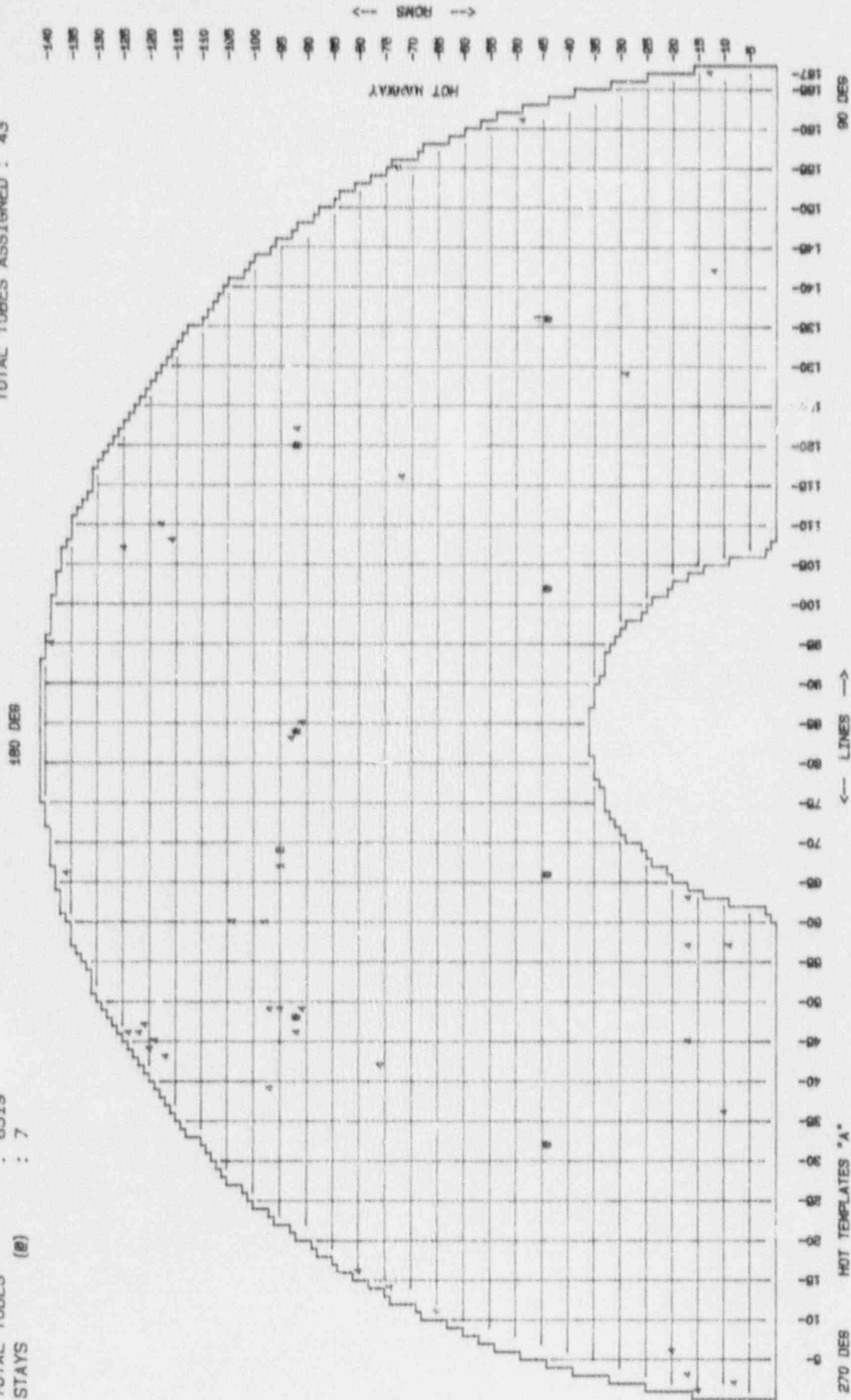
1 = >74.99 (2)
4 = <25.00 (40)

2 = 50.00-74.99 (1)

3 = 25.00-49.99 (0)

TOTAL TUBES : 8519
STAYS : 7

TOTAL TUBES ASSIGNED : 43



Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: All Dent Indications + All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
8	2	10/90	DENT		10.80	C4	+ 5.10
9	57	10/90	DENT		20.86	C4	+10.90
10	36	10/90	DENT		5.36	C4	+29.80
		10/90	DENT		6.51	C4	+29.10
12	142	10/90	DENT		19.40	H6	+ 7.70
13	167	10/90	DENT		7.00	DH	+ 2.20
15	1	10/90	DENT		6.89	HTS-SF	+ 1.00
17	3	10/90	DENT		5.11	VM	+ 1.90
17	45	10/90	DENT		5.21	DC	
17	57	10/90	DENT		5.32	DC	
17	63	10/90	DENT		5.84	DC	
20	6	10/90	DENT		9.53	C6	+ 3.60
29	129	10/90	DENT		12.09	HTS-SF	+ 1.20
46	136	10/90	DENT		9.07	H6	+13.50
49	161	10/90	DENT		5.64	H5	+36.90
		10/90	DENT		5.70	H6	+ 1.90
		10/90	DENT		14.88	H6	+11.70
		10/90	DENT		18.32	H5	+13.70
65	11	10/90	DENT		12.21	DH	+26.00
72	116	10/90	DENT		6.72	H1	+17.20
73	155	10/90	DENT		8.08	CTS-SF	+ 0.90
74	14	10/90	DENT		7.11	VM	+ 3.40
76	42	10/90	DENT		16.10	H7	+17.27
		10/90	DENT		12.75	H7	+17.78
		10/90	DENT		20.07	C8	+ 1.52
80	16	10/90	DENT		6.20	VM	+ 1.80
91	49	10/90	DENT		5.63	H8	+11.50
		10/90	DENT		6.15	C8	+21.50
		10/90	DENT		5.23	C8	+ 4.00
91	85	10/90	DENT		9.90	C9	
92	46	10/90	DENT		5.67	HTS-SF	+ 3.50
92	122	10/90	DENT		5.23	CTS-SF	+ 9.00
93	83	10/90	DENT		7.88	H8	+13.10
		10/90	DENT		23.98	H8	+15.20
		10/90	DENT		13.02	H8	+15.90
		10/90	DENT		5.52	C9	
95	49	10/90	DENT		9.65	H9	
95	67	10/90	DENT		148.70	H8	+23.20
95	69	10/90	DENT		56.32	H8	+21.50
97	39	10/90	DENT		5.50	H8	+ 1.60
		10/90	DENT		13.53	H8	+ 3.50
		10/90	DENT		9.35	H8	+ 4.10
		10/90	DENT		8.71	H8	+ 4.50
		10/90	DENT		7.02	H8	+ 7.00
		10/90	DENT		20.81	H8	+ 7.90
		10/90	DENT		6.37	H8	+ 6.60
		10/90	DENT		9.61	H8	+17.90
		10/90	DENT		6.94	H8	+19.40
		10/90	DENT		6.04	C7	+20.80
		10/90	DENT		8.32	C7	+23.20
		10/90	DENT		19.79	C7	+24.40
		10/90	DENT		8.27	C8	+10.80
		10/90	DENT		7.49	C8	+12.50
		10/90	DENT		22.87	C8	+ 1.50
		10/90	DENT		8.69	C8	+ 1.20
		10/90	DENT		11.30	C8	+20.00
		10/90	DENT		10.14	C8	+20.90
		10/90	DENT		15.95	C9	
97	49	10/90	DENT		8.52	H7	+23.60
		10/90	DENT		7.89	H7	+24.80
		10/90	DENT		9.06	H8	
		10/90	DENT		14.29	H8	+ 2.60
		10/90	DENT		10.60	H8	+ 5.90
		10/90	DENT		8.89	H8	+ 7.70
98	60	10/90	DENT		126.10	H9	
104	60	10/90	DENT		11.67	H9	
116	108	10/90	DENT		8.82	VM	+23.90

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 21

QUERY: All Dent Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
117	43	10/90	DENT		17.65	C10	
118	110	10/90	DENT		7.43	H9	
119	45	10/90	DENT		7.24	C10	+ 2.10
120	44	10/90	DENT		7.94	C10	
121	47	10/90	DENT		15.05	H8	+ 5.00
122	46	10/90	DENT		8.36	C1C	
124	45	10/90	DENT		5.53	C10	
125	107	10/90	DENT		6.61	H10	
136	66	10/90	DENT		5.52	C9	+18.20
139	95	10/90	DENT		5.74	C10	+18.70

TOTAL TUBES FOUND = 43
TOTAL INDICATIONS FOUND = 77

TOTAL TUBES IN INPUT FILE = 8519
TOTAL TUBES INSPECTED = 1423

STEAM GENERATOR 21

F. List with Plot of all Tubes Plugged

ALL TUBES PLUGGED

GENERATOR: 21

PLANT: CALVERT CLIFFS UNIT 2

OUTAGES: 11/79 11/82 05/84 10/85 3/87 4/89 10/90 7/90

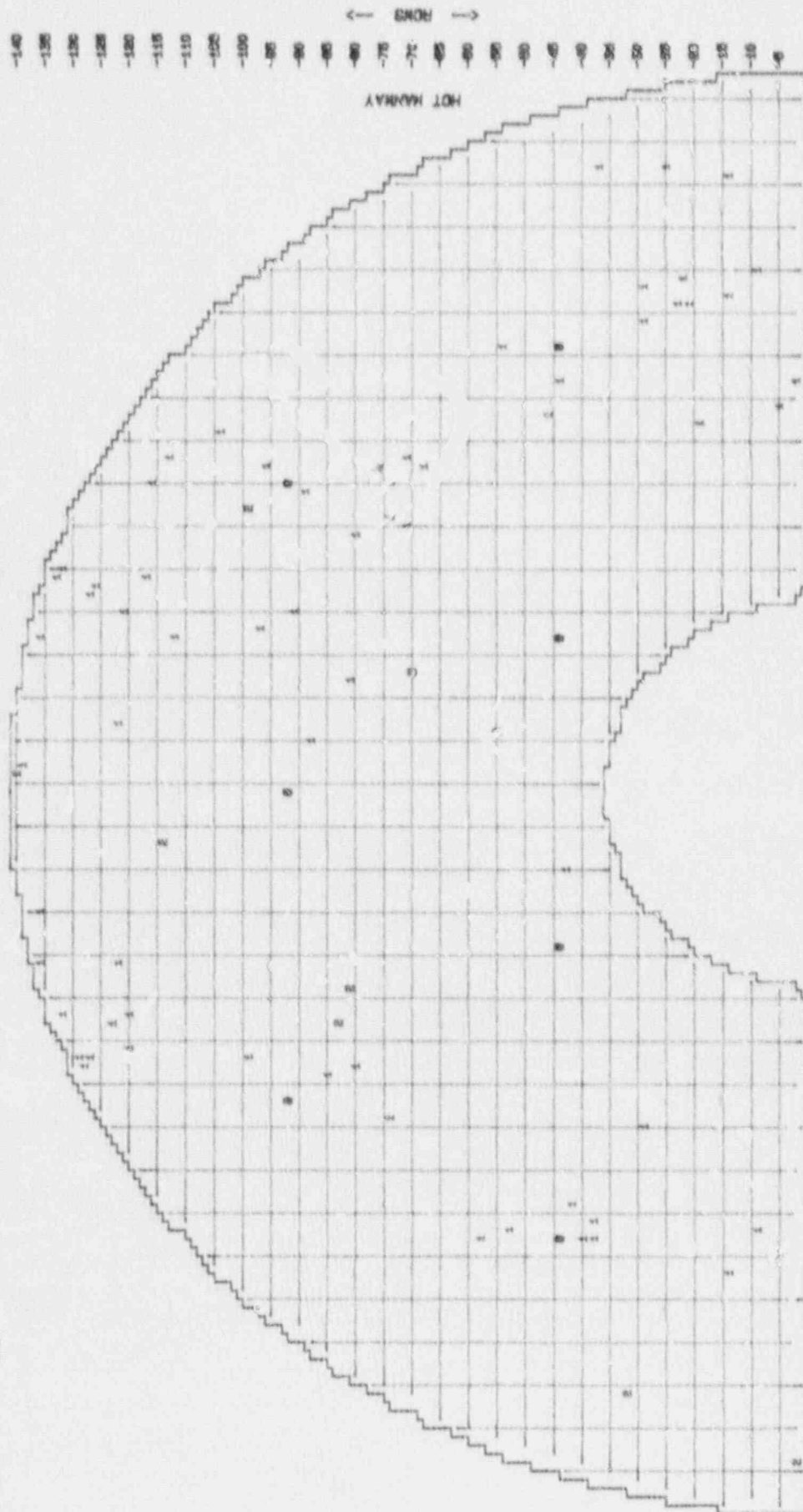
1 = MECH-W (637)

2 = CONGT (88)

TOTAL TUBES : 851S
STAYS : 7

TOTAL TUBES ASSIGNED : 75

180 DEG



270 DEG HOT TEMPLATES *A* 180 DEG 90 DEG

Plant: CALVERT CLIFFS UNIT 1
Outages: 11/79 11/82 05/84 10/85 3/87 4/89 10/90 7/90

Steam Generator: 21
10/90 7/90

QUERY: ALL TUBES PLUGGED

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
2	6	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
2	132	05/84	PLUGGED	MECH-W		HTS-PF	
		05/84	PLUGGED	MECH-W		CTS-PF	
5	129	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
9	33	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
9	145	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
14	28	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
14	142	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
14	156	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
17	127	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
21	141	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
22	144	05/84	PLUGGED	MECH-W		HTS-PF	
		05/84	PLUGGED	MECH-W		CTS-PF	
23	141	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
25	157	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
29	45	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
29	139	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
29	143	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
32	14	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
37	157	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
38	32	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
38	34	05/84	PLUGGED	MECH-W		HTS-PF	
		05/84	PLUGGED	MECH-W		CTS-PF	
40	32	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
42	36	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
43	75	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
44	132	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
46	128	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
53	33	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
54	174	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
55	91	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
58	32	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
68	122	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
70	98	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
71	115	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
71	123	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
74	46	3/87	PLUGGED	MECH-W		HTS-PF	

Plant: CALVERT CLIFFS UNIT 2
Outages: 11/79 11/82 05/84 10/85 3/87 4/89 10/90 7/90

Steam Generator: 21

QUERY: ALL TUBES PLUGGED

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
		3/87	PLUGGED	MECH-W		CTS-PF	
74	116	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
74	120	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
76	122	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
80	52	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
80	114	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
81	61	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
81	97	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
83	57	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
85	51	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
88	90	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
89	119	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
91	105	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
96	122	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
97	103	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
99	53	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
99	117	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
104	126	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
112	102	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
113	123	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
114	78	11/79	PLUGGED	CONST		HTS-PF	
		11/79	PLUGGED	CONST		CTS-PF	
116	120	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
117	109	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
120	54	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
120	58	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
11	105	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
122	64	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
122	92	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
123	57	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
126	108	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
127	53	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
127	107	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
128	52	05/84	PLUGGED	MECH-W		HTS-PF	
		05/84	PLUGGED	MECH-W		CTS-PF	
129	53	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	

Plant: CALVERT CLIFFS UNIT 2

Steam Generator: 21

Outages: 11/79 11/82 05/84 10/85 3/87 4/89

10/90 7/90

QUERY: ALL TUBES PLUGGED

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
132	58	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
132	110	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
133	104	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
136	64	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
136	70	11/82	PLUGGED	MECH-W		HTS-PF	
		11/82	PLUGGED	MECH-W		CTS-PF	
136	102	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
139	87	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
140	86	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	

TOTAL TUBES FOUND = 75
 TOTAL INDICATIONS FOUND = 150

APPENDIX II

Eddy Current Test Results for SG 22

- A. List with Plot of All Indications
- B. List with Plot of <20% Indications
- C. List with Plot of 20% - 39% Indications
- D. List with Plot of All Tubes Examined
- E. List with Plot of Tubes Dented
- F. List with Plot of All Tubes Plugged

STEAM GENERATOR 22

A. List with Plot of All Indications

All Eddy Current Indications - All Elevations

GENERATOR 22

PLANT: CALVERT CLIFFS UNIT 2

OUTAGE: 10/90

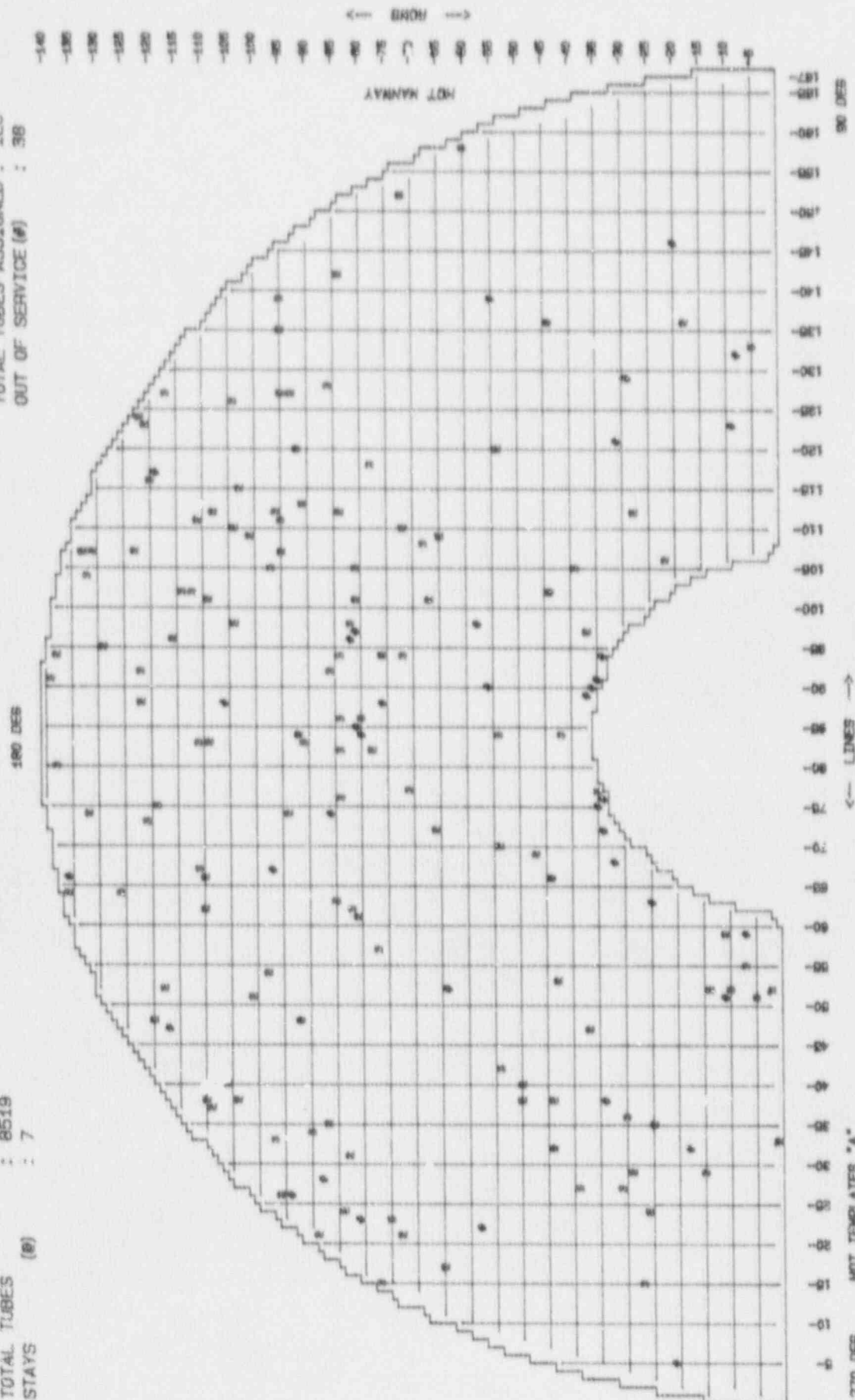
1 - >39 (0)

2 - 20-39 (71)

3 - <20 (95)

TOTAL TUBES : 8519
STAYS : 7

TOTAL TUBES ASSIGNED : 126
OUT OF SERVICE (#) : 38



Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

QUERY: All Eddy Current Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
1	33	10/90	OD	0.85	% TW	HTS-SF	+34.00
5	52	10/90	OD	0.51	% TW	HTS-SF	+13.80
5	51	10/90	OD	1.35	% TW	H4	
13	133	10/90	OD	0.99	% TW	CTS-SF	+ 6.00
5	55	10/90	OD	1.45	% TW	H1	+20.30
10	58	10/90	OD	0.82	% TW	DH	
11	59	10/90	OD	0.52	% TW	C3	+ 8.60
14	52	10/90	OD	0.67	% TW	C5	+23.11
		10/90	OD	0.75	% TW	C4	+14.73
		10/90	OD	0.70	% TW	C4	+10.16
15	29	10/90	OD	0.67	% TW	C2	+30.73
18	136	10/90	OD	0.79	% TW	HTS-SF	+ 0.50
23	106	10/90	OD	1.44	% TW	C4	+ 1.10
25	35	10/90	OD	0.54	% TW	H3	+13.10
26	24	10/90	OD	0.75	% TW	VH	+ 3.00
27	15	10/90	OD	0.79	% TW	H4	+25.00
28	112	10/90	OD	0.87	% TW	H3	+ 6.89
		10/90	OD	0.59	% TW	H1	+16.40
29	29	10/90	OD	0.54	% TW	HTS-SF	+ 1.00
30	36	10/90	OD	1.13	% TW	C4	+34.90
31	27	10/90	OD	1.61	% TW	C4	+19.50
33	77	10/90	OD	1.75	% TW	C1	+13.40
37	47	10/90	OD	0.50	% TW	C1	+19.10
37	97	10/90	OD	1.00	% TW	H1	+11.50
39	27	10/90	OD	0.97	% TW	C4	+37.20
39	105	10/90	OD	0.64	% TW	HTS-SF	+13.10
42	84	10/90	OD	0.64	% TW	C1	+25.00
43	53	10/90	OD	0.59	% TW	C3	+11.00
44	38	10/90	OD	0.92	% TW	HTS-SF	+ 0.50
47	69	10/90	OD	0.85	% TW	C5	+ 3.30
50	38	10/90	OD	0.58	% TW	HTS-SF	+ 8.50
		10/90	OD	0.53	% TW	VH	+ 4.80
50	40	10/90	OD	0.43	% TW	HTS-SF	+ 1.10
54	42	10/90	OD	0.50	% TW	CTS-SF	+23.70
54	70	10/90	OD	0.57	% TW	H2	+23.30
54	84	10/90	OD	0.73	% TW	C3	+23.20
54	120	10/90	OD	1.09	% TW	HTS-SF	+28.20
60	158	10/90	OD	0.77	% TW	C5	+34.00
65	17	10/90	OD	0.79	% TW	VH	+25.20
65	109	10/90	OD	0.50	% TW	H6	+13.30
66	72	10/90	OD	0.70	% TW	HTS-SF	+ 1.10
67	101	10/90	OD	0.54	% TW	HTS-SF	+14.70
68	108	10/90	OD	0.46	% TW	HTS-SF	+ 0.70
71	77	10/90	OD	0.59	% TW	HTS-SF	+ 0.80
72	94	10/90	OD	0.67	% TW	CTS-SF	+ 5.40
72	110	10/90	OD	0.66	% TW	CTS-SF	+26.70
72	152	10/90	OD	0.57	% TW	HTS-SF	+18.00
73	21	10/90	OD	1.04	% TW	VH	
75	23	10/90	OD	1.33	% TW	DC	
76	94	10/90	OD	0.56	% TW	HTS-SF	+ 1.00
77	15	10/90	OD	0.59	% TW	H1	+21.20
77	57	10/90	OD	0.69	% TW	C3	+16.10
78	82	10/90	OD	0.81	% TW	C5	+29.60
78	118	10/90	OD	0.77	% TW	VH	+13.60
80	86	10/90	OD	0.86	% TW	HTS-SF	+ 0.80
81	61	10/90	OD	0.72	% TW	C6	+14.90
81	101	10/90	OD	0.60	% TW	H6	+15.20
81	105	10/90	OD	0.78	% TW	H3	+13.70
82	62	10/90	OD	1.14	% TW	H4	+ 7.10
		10/90	OD	0.57	% TW	C3	+30.40
82	98	10/90	OD	0.53	% TW	HTS-SF	+ 0.60
83	31	10/90	OD	1.39	% TW	H1	+19.10
84	24	10/90	OD	1.95	% TW	VH	+22.60
84	76	10/90	OD	0.65	% TW	HTS-SF	+ 0.60
84	82	10/90	OD	0.88	% TW	C7	+ 5.80
84	86	10/90	OD	0.90	% TW	HTS-SF	+ 5.80
84	94	10/90	OD	0.76	% TW	HTS-SF	+ 0.70

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

QUERY: All Eddy Current Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
84	112	10/90	OD	1.28	0.68	HTS-SF	+ 4.70
84	142	10/90	OD	1.62	0.62	C4	+ 2.40
85	63	10/90	OD	1.17	0.66	C4	+ 32.00
86	90	10/90	OD	1.13	1.29	HTS-SF	+ 0.70
86	128	10/90	OD	1.13	0.58	C6	+ 21.70
87	35	10/90	OD	1.36	0.77	H7	+ 6.60
89	21	10/90	OD	1.49	1.49	C8	+ 21.60
90	34	10/90	OD	1.19	0.80	H5	+ 35.00
91	83	10/90	OD	1.16	0.65	VH	+ 3.50
91	113	10/90	OD	1.23	0.73	H2	+ 7.60
93	127	10/90	OD	1.25	0.63	HTS-SF	+ 14.20
94	74	10/90	OD	1.28	0.63	C3	+ 26.80
95	107	10/90	OD	1.49	0.59	H6	+ 20.30
95	111	10/90	OD	1.19	0.61	HTS-SF	+ 14.70
95	127	10/90	OD	1.14	0.63	H1	+ 18.30
95	135	10/90	OD	1.27	0.59	H9	+ 22.50
95	139	10/90	OD	1.18	0.56	HTS-SF	+ 35.60
96	26	10/90	OD	1.00	0.61	C2	+ 7.90
96	112	10/90	OD	1.00	0.59	H2	+ 34.90
97	33	10/90	OD	1.10	1.35	H4	+ 6.10
97	105	10/90	OD	1.16	0.74	VH	+ 25.90
98	54	10/90	OD	1.16	0.98	C2	+ 10.80
101	51	10/90	OD	1.27	0.83	H8	+ 3.50
		10/90	OD	1.22	0.78	C3	+ 24.60
		10/90	OD	1.17	0.64	C3	+ 27.50
101	109	10/90	OD	1.23	0.98	VM	+ 17.20
103	115	10/90	OD	1.23	0.93	H5	+ 33.70
104	38	10/90	OD	1.38	0.92	VH	+ 25.50
104	98	10/90	OD	1.14	0.65	H7	+ 7.40
104	110	10/90	OD	1.21	0.50	C3	+ 25.50
104	126	10/90	OD	1.19	1.05	H3	+ 9.60
		10/90	OD	1.13	0.60	H3	+ 19.20
106	40	10/90	OD	1.24	0.59	H5	+ 28.40
108	112	10/90	OD	1.26	1.23	H4	+ 14.00
		10/90	OD	1.26	0.80	H4	+ 19.20
109	37	10/90	OD	1.24	0.77	HTS-SF	+ 32.70
109	83	10/90	OD	1.14	1.05	H4	+ 3.00
109	101	10/90	OD	1.19	0.83	H4	+ 37.50
		10/90	OD	1.22	0.76	H4	+ 37.00
110	38	10/90	OD	1.24	1.34	C3	+ 37.70
		10/90	OD	1.24	1.03	C3	+ 20.10
		10/90	OD	1.24	0.97	C3	+ 13.40
110	62	10/90	OD	1.24	0.64	H4	+ 20.50
110	66	10/90	OD	1.24	0.55	C3	+ 27.90
		10/90	OD	1.24	0.50	C3	+ 24.00
111	67	10/90	OD	1.12	0.59	H4	+ 31.30
111	83	10/90	OD	1.12	0.75	H3	+ 25.80
111	111	10/90	OD	1.10	1.21	C7	+ 10.30
112	102	10/90	OD	1.10	0.71	C3	+ 22.90
114	102	10/90	OD	1.13	1.04	C3	+ 24.70
		10/90	OD	1.18	0.67	C4	+ 21.90
		10/90	OD	1.17	0.98	C5	+ 4.70
		10/90	OD	1.14	0.73	C7	+ 16.30
116	96	10/90	OD	1.28	1.24	C8	+ 15.10
117	127	10/90	OD	1.13	1.08	C4	+ 33.60
118	52	10/90	OD	1.27	1.03	H5	+ 10.50
		10/90	OD	1.16	1.13	H5	+ 19.80
		10/90	OD	1.13	0.61	H8	+ 3.30
		10/90	OD	1.13	1.23	H9	+ 1.20
		10/90	OD	1.10	0.69	H9	+ 6.80
119	75	10/90	OD	1.13	4.02	H4	+ 4.70
120	48	10/90	OD	1.13	0.75	/ 4	+ 25.00
120	116	10/90	OD	1.10	0.48	H6	+ 11.10
121	73	10/90	OD	1.11	0.94	H5	+ 32.30
121	123	10/90	OD	1.11	0.44	HTS-SF	+ 0.80
122	88	10/90	OD	1.13	0.70	C9	+ 6.30
		10/90	OD	1.13	0.79	C7	+ 16.40

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

QUERY: All Eddy Current Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
112	92	10/90	OD	23	% TW	0.56 C2	+36.60
113	92	10/90	OD	13	% TW	0.94 H4	+14.70
114	124	10/90	OD	34	% TW	0.50 C7	+11.40
115	107	10/90	OD	37	% TW	0.42 H5	+15.60
116	64	10/90	OD	17	% TW	0.64 H7	+ 7.10
117	95	10/90	OD	20	% TW	0.66 H6	+19.80
118	107	10/90	OD	20	% TW	0.76 VH	+24.50
119	74	10/90	OD	20	% TW	1.02 H9	+ 3.60
120	104	10/90	OD	18	% TW	1.22 HTS-SF	+ 4.40
121	107	10/90	OD	16	% TW	0.84 H2	+29.30
122	107	10/90	OD	23	% TW	1.55 H3	+ 3.20
123	64	10/90	OD	23	% TW	1.01 VH	+25.20
124	80	10/90	OD	11	% TW	0.60 C2	+36.10
125	94	10/90	OD	20	% TW	0.59 DH	
126	91	10/90	OD	17	% TW	0.78 H4	+ 6.30

TOTAL TUBES FOUND = 126
TOTAL INDICATIONS FOUND = 149

TOTAL TUBES IN INPUT FILE = 8519
TOTAL TUBES INSPECTED = 1246

STEAM GENERATOR 22

B. List with Plot of $\leq 20\%$ Indications

LESS THAN 20% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

GENERATOR 22

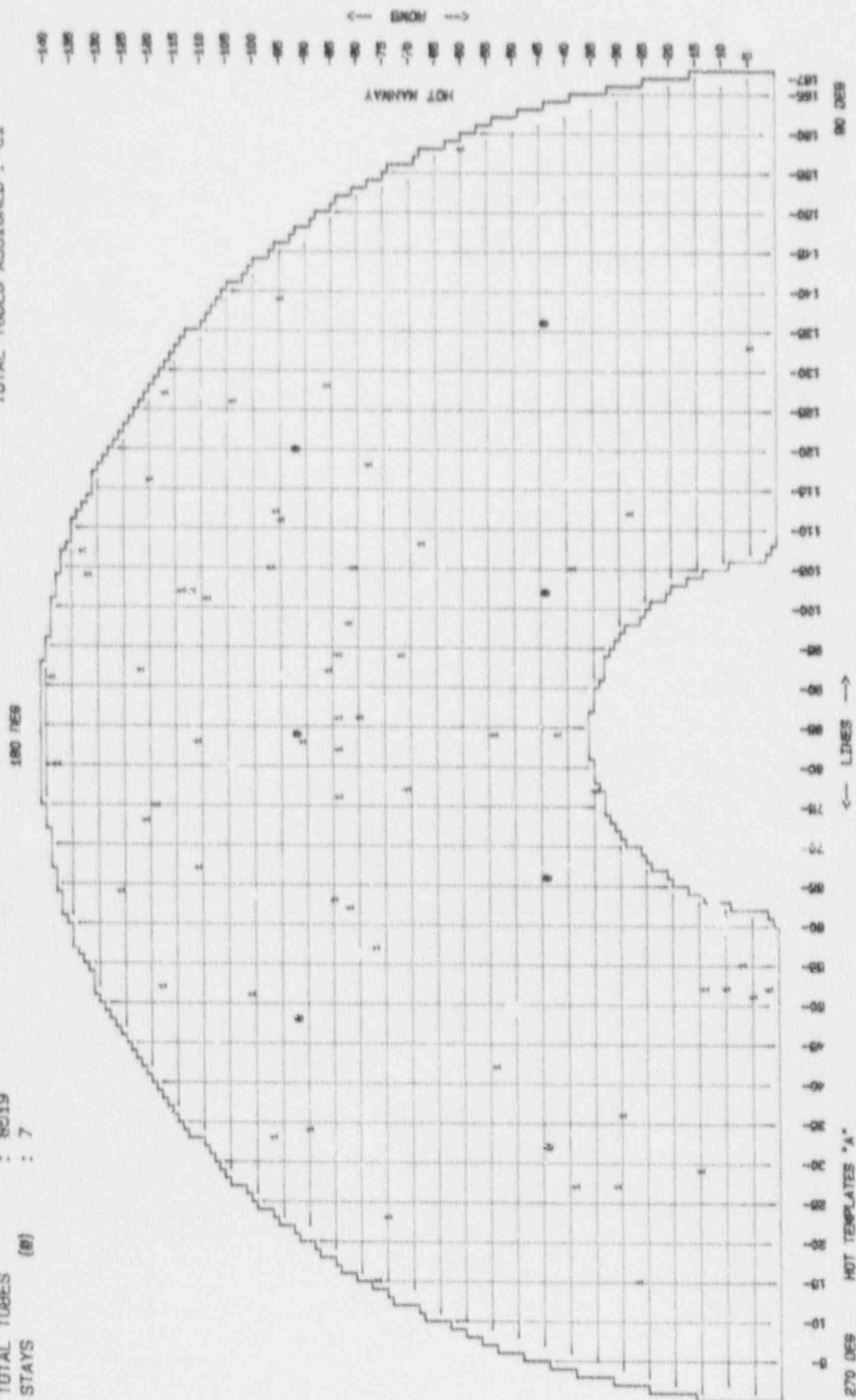
PLANT: CALVERT CLIFFS UNIT 2

OUTAGE: 10/90

1 - <20 (6%)

TOTAL TUBES : 8519
STAYS : 7

TOTAL TUBES ASSIGNED : 51



Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

QUERY: LESS THAN 20% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
2	52	10/90	OD	19 %	0.51	HTS-SF	+13.80
5	51	10/90	OD	11 %	1.35	H4	
5	133	10/90	OD	16 %	0.99	CTS-SF	+ 6.00
7	55	10/90	OD	19 %	1.46	H1	+20.30
10	52	10/90	OD	16 %	0.82	DM	
14	52	10/90	OD	11 %	0.67	C5	+23.11
		10/90	OD	17 %	0.75	C4	+14.73
15	29	10/90	OD	19 %	0.67	C2	+30.73
27	15	10/90	OD	15 %	0.79	H4	+25.00
28	112	10/90	OD	16 %	0.59	H1	+16.40
30	36	10/90	OD	11 %	1.13	C4	+34.90
31	27	10/90	OD	18 %	1.61	C4	+19.50
35	77	10/90	OD	16 %	1.75	C1	+13.40
39	27	10/90	OD	10 %	0.97	C4	+37.20
39	105	10/90	OD	12 %	0.64	HTS-SF	+13.10
42	84	10/90	OD	13 %	0.64	C1	+25.00
54	42	10/90	OD	19 %	0.50	CTS-SF	+ 3.70
54	84	10/90	OD	11 %	0.73	C3	+23.20
60	158	10/90	OD	7 %	0.77	C5	+24.00
68	108	10/90	OD	9 %	0.46	HTS-SF	+ 0.70
71	77	10/90	OD	1 %	0.59	HTS-SF	+ 0.80
72	94	10/90	OD	1 %	0.67	CTS-SF	+ 5.40
75	23	10/90	OD	16 %	1.33	DC	
77	15	10/90	OD	12 %	0.59	H1	+21.20
77	57	10/90	OD	12 %	0.69	C3	+16.10
78	118	10/90	OD	12 %	0.77	VH	+13.6'
80	86	10/90	OD	17 %	0.86	HTS-SF	+ 0.80
81	105	10/90	OD	15 %	0.78	H3	+12.70
82	62	10/90	OD	13 %	1.14	H4	+ 7.10
		10/90	OD	13 %	0.87	C3	+30.40
82	98	10/90	OD	13 %	0.53	HTS-SF	+ 0.60
84	76	10/90	OD	12 %	0.65	HTS-SF	+ 0.60
84	82	10/90	OD	13 %	0.88	C7	+ 5.80
84	86	10/90	OD	17 %	0.90	HTS-SF	+ 5.80
84	94	10/90	OD	19 %	0.76	HTS-SF	+ 0.70
85	63	10/90	OD	17 %	0.66	C4	+32.00
86	92	10/90	OD	13 %	1.29	HTS-SF	+ 0.70
86	128	10/90	OD	13 %	0.58	C6	+21.70
90	34	10/90	OD	19 %	0.80	H5	+35.00
91	83	10/90	OD	16 %	0.65	VH	+ 3.50
95	111	10/90	OD	19 %	0.61	HTS-SF	+14.70
95	139	10/90	OD	18 %	0.56	HTS-SF	+35.60
96	112	10/90	OD	10 %	0.59	H2	+34.90
97	33	10/90	OD	10 %	1.35	H4	+ 6.10
97	105	10/90	OD	18 %	0.74	VH	+25.90
101	51	10/90	OD	19 %	0.64	C3	+27.50
104	126	10/90	OD	19 %	1.05	H3	+ 9.60
		10/90	OD	13 %	0.60	H3	+19.20
109	101	10/90	OD	19 %	0.83	H4	+32.50
111	67	10/90	OD	12 %	0.59	H4	+31.30
111	83	10/90	OD	13 %	0.78	H3	+25.80
112	102	10/90	OD	10 %	0.71	C3	+32.90
114	102	10/90	OD	13 %	1.04	C3	+34.70
		10/90	OD	18 %	0.67	C4	+21.90
		10/90	OD	17 %	0.98	C5	+ 4.70
		10/90	OD	11 %	0.73	C7	+16.30
117	127	10/90	OD	12 %	1.08	C4	+33.60
118	52	10/90	OD	16 %	1.13	H5	+19.80
		10/90	OD	12 %	1.23	H9	+ 3.20
		10/90	OD	10 %	0.69	H9	+ 6.80
119	75	10/90	OD	16 %	4.02	H4	+ 4.70
120	116	10/90	OD	10 %	2.48	H6	+11.10
121	73	10/90	OD	12 %	0.94	H5	+32.30
122	92	10/90	OD	17 %	0.94	H4	+14.70
126	64	10/90	OD	17 %	0.61	H7	+ 7.10
132	104	10/90	OD	18 %	1.22	HTS-SF	+ 9.40
133	107	10/90	OD	16 %	0.84	H2	+29.30

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

QUERY: LESS THAN 20% THRU WALL EDDY CURRENT INDICATIONS - ALL ELEVATIONS

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
138	80	10/90	OD	11 % TW	0.60	C2	+36.10
139	91	10/90	OD	17 % TW	0.78	H4	+ 6.30

TOTAL TUBES FOUND = 61
TOTAL INDICATIONS FOUND = 69

TOTAL TUBES IN INPUT FILE = 8519
TOTAL TUBES INSPECTED = 1246

STEAM GENERATOR 22

C. List with Plot of 20% - 39% Indications

Eddy Current Indications - All Elevations - 20% Thru Wall and Greater

PLANT: CALVERT CLIFFS UNIT 2

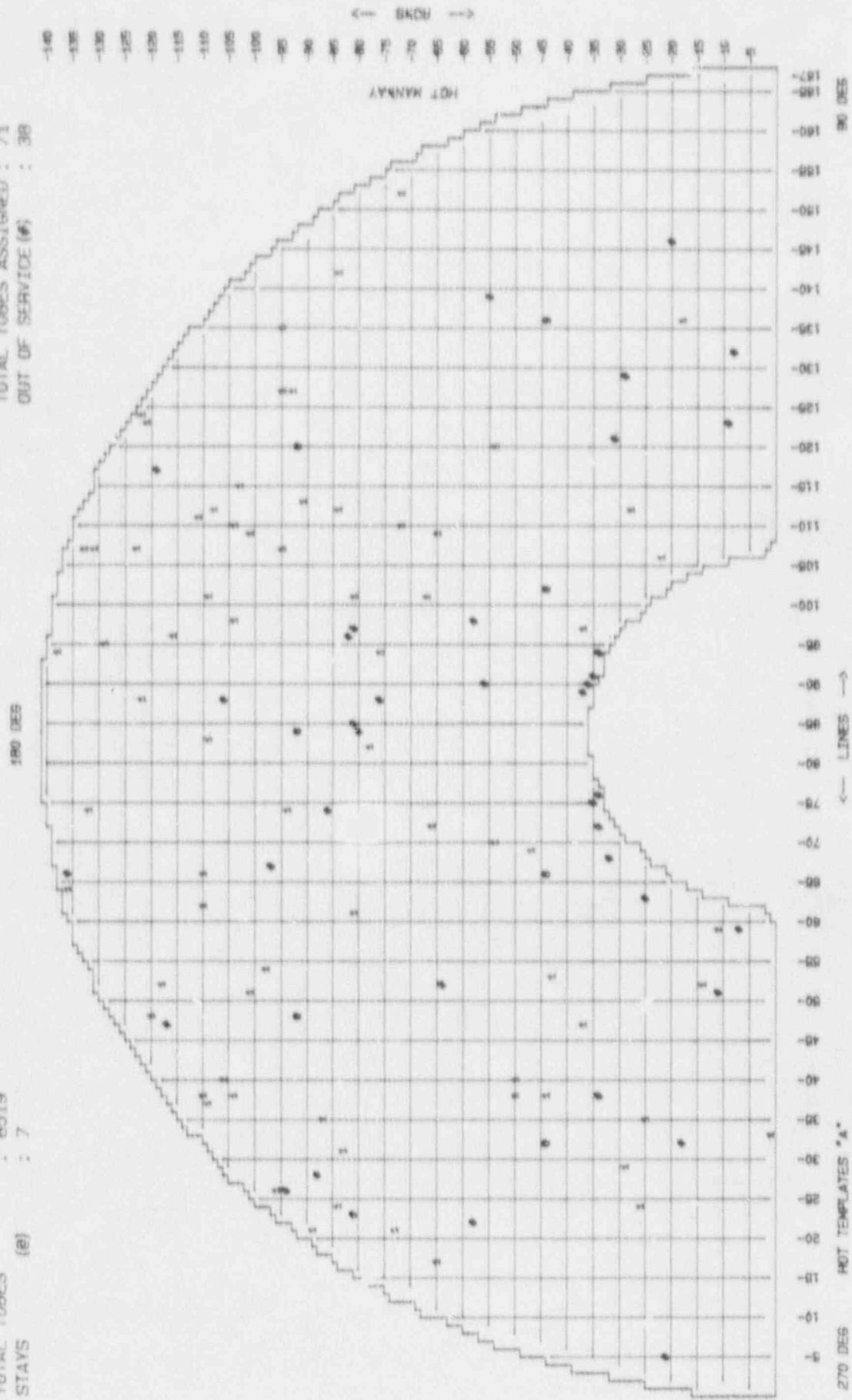
GENERATOR: 22

OUTAGE: 10/90

1 - 20-39 (71)

TOTAL TUBES : 8519
STAYS (e) : 7

TOTAL TUBES ASSIGNED : 71
OUT OF SERVICE (#) : 38



Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

QUERY: Eddy Current Indications - 20% Thru Wall and Greater - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
1	33	10/90	OD	0.37	0.65	HTS-SF	+34.00
11	59	10/90	OD	0.39	0.52	C3	+8.60
14	52	10/90	OD	0.34	0.70	C4	+10.16
18	136	10/90	OD	0.34	0.79	HTS-SF	+0.50
22	106	10/90	OD	0.34	1.44	C4	+1.10
25	35	10/90	OD	0.33	0.54	H3	+13.10
26	24	10/90	OD	0.38	0.75	VM	+3.00
28	112	10/90	OD	0.32	0.87	H3	+6.80
29	29	10/90	OD	0.32	0.64	HTS-SF	+1.00
37	47	10/90	OD	0.36	0.50	C1	+19.10
37	97	10/90	OD	0.35	1.00	H1	+11.50
43	53	10/90	OD	0.36	0.59	C3	+11.00
44	38	10/90	OD	0.32	0.92	HTS-SF	+0.50
47	69	10/90	OD	0.37	0.86	C5	+3.30
50	38	10/90	OD	0.35	0.56	HTS-SF	+8.50
		10/90	OD	0.35	0.53	VM	+4.80
50	40	10/90	OD	0.39	0.43	HTS-SF	+1.10
54	70	10/90	OD	0.38	0.57	H2	+23.30
54	120	10/90	OD	0.31	1.09	HTS-SF	+28.20
65	17	10/90	OD	0.31	0.79	VM	+25.20
65	109	10/90	OD	0.32	0.50	H6	+13.30
66	72	10/90	OD	0.34	0.70	HTS-SF	+1.10
67	101	10/90	OD	0.38	0.54	HTS-SF	+14.70
72	110	10/90	OD	0.33	0.66	CTS-SF	+26.70
72	152	10/90	OD	0.36	0.57	HTS-SF	+18.00
73	21	10/90	OD	0.35	1.04	VM	
76	94	10/90	OD	0.36	0.56	HTS-SF	+1.00
78	82	10/90	OD	0.39	0.81	C5	+29.60
81	61	10/90	OD	0.36	0.72	C6	+14.90
81	101	10/90	OD	0.36	0.60	H6	+15.20
83	31	10/90	OD	0.31	1.29	H1	+19.10
84	24	10/90	OD	0.32	1.95	VH	+22.60
84	112	10/90	OD	0.39	0.68	HTS-SF	+4.70
84	142	10/90	OD	0.38	1.62	C4	+2.40
87	35	10/90	OD	0.36	0.77	H7	+6.60
89	21	10/90	OD	0.36	1.49	C8	+21.60
91	113	10/90	OD	0.33	0.73	H2	+7.60
93	127	10/90	OD	0.36	0.63	HTS-SF	+14.20
94	74	10/90	OD	0.35	0.63	C3	+26.80
95	107	10/90	OD	0.36	0.59	H6	+20.30
95	127	10/90	OD	0.34	0.63	H1	+18.30
95	135	10/90	OD	0.37	0.59	H9	+25.50
96	26	10/90	OD	0.30	0.61	C2	+7.90
98	54	10/90	OD	0.33	0.98	C2	+20.80
101	51	10/90	OD	0.36	0.83	H8	+6.50
		10/90	OD	0.32	0.78	C3	+32.60
101	109	10/90	OD	0.37	0.98	VM	+13.30
103	115	10/90	OD	0.35	0.93	H5	+32.70
104	38	10/90	OD	0.33	0.92	VH	+25.50
104	98	10/90	OD	0.34	0.65	H7	+7.40
104	110	10/90	OD	0.31	0.50	C3	+25.50
106	40	10/90	OD	0.32	0.59	H5	+28.40
108	112	10/90	OD	0.36	1.23	H4	+14.00
		10/90	OD	0.35	0.60	H4	+19.20
109	37	10/90	OD	0.34	0.77	HTS-SF	+32.70
109	83	10/90	OD	0.34	1.05	H4	+7.00
109	101	10/90	OD	0.38	0.76	H4	+37.00
110	38	10/90	OD	0.33	1.34	C3	+37.70
		10/90	OD	0.32	1.02	C3	+20.10
		10/90	OD	0.37	0.97	C3	+13.40
110	62	10/90	OD	0.35	0.64	H4	+20.50
110	66	10/90	OD	0.34	0.55	C3	+27.90
		10/90	OD	0.38	0.50	C3	+24.00
111	111	10/90	OD	0.32	1.21	C7	+10.30
116	96	10/90	OD	0.38	1.24	C8	+15.10
118	52	10/90	OD	0.37	1.03	H5	+10.50
		10/90	OD	0.38	0.61	H5	+2.30

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

QUERY: Eddy Current Indications - 20% Thru Wall and Greater - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
120	48	10/90	OD	22 %	TW	0.75 C4	+25.00
121	123	10/90	OD	33 %	TW	0.44 HTS-SF	+ 0.80
122	88	10/90	OD	23 %	TW	0.70 C9	+ 6.30
		10/90	OD	26 %	TW	0.79 C7	+16.40
		10/90	OD	31 %	TW	0.56 C2	+36.60
122	124	10/90	OD	35 %	TW	0.50 C7	+11.40
123	107	10/90	OD	37 %	TW	0.42 H5	+15.60
129	95	10/90	OD	28 %	TW	0.66 H6	+19.80
131	107	10/90	OD	23 %	TW	0.76 VH	+24.50
132	74	10/90	OD	23 %	TW	1.02 H9	+ 3.60
133	107	10/90	OD	23 %	TW	1.55 H3	+ 3.20
136	64	10/90	OD	22 %	TW	1.01 VH	+25.20
138	94	10/90	OD	29 %	TW	0.59 DH	

TOTAL TUBES FOUND = 71
 TOTAL INDICATIONS FOUND = 80

TOTAL TUBES IN INPUT FILE = 8519
 TOTAL TUBES INSPECTED = 1246

STEAM GENERATOR 22

D. List with Plot of All Tubes Examined

Tubes INSPECTED - Bobbin Coil Examination 1990

PLANT: CALVERT CLIFFS UNIT 2

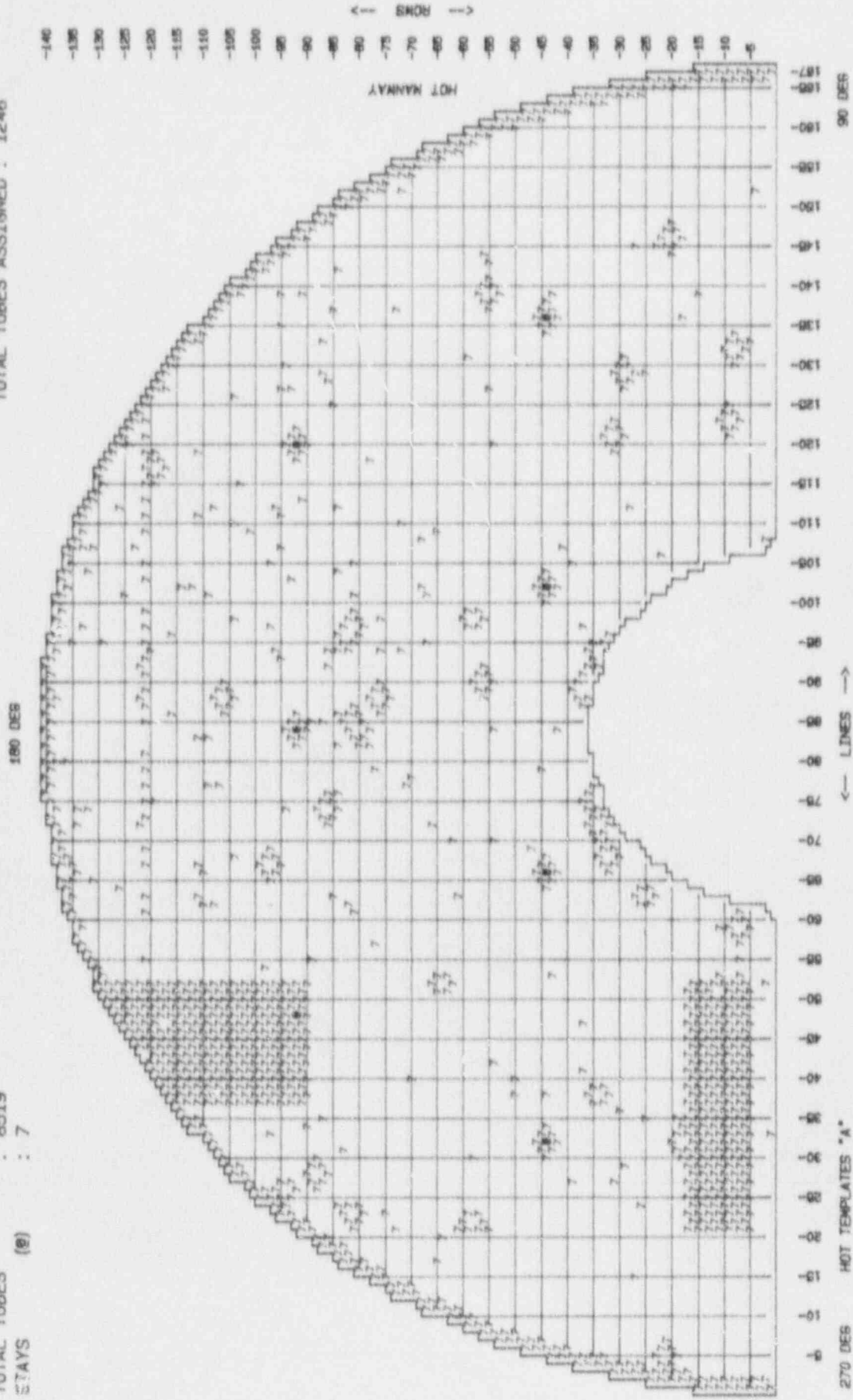
GENERATOR 22

OUTAGE: 10/90

7 - Outage : 10/90 (1246)

TOTAL TUBES : 8519
STAYS (e) : 7

TOTAL TUBES ASSIGNED : 1246



Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
1	1	10/90	F/L
1	33	10/90	F/L
1	167	10/90	F/L
2	2	10/90	F/L
2	52	10/90	F/L
2	106	10/90	F/L
2	166	10/90	F/L
3	1	10/90	F/L
3	167	10/90	F/L
4	2	10/90	F/L
4	152	10/90	F/L
4	166	10/90	F/L
5	1	10/90	F/L
5	21	10/90	F/L
5	23	10/90	F/L
5	25	10/90	F/L
5	27	10/90	F/L
5	29	10/90	F/L
5	31	10/90	F/L
5	33	10/90	F/L
5	35	10/90	F/L
5	37	10/90	F/L
5	39	10/90	F/L
5	41	10/90	F/L
5	43	10/90	F/L
5	45	10/90	F/L
5	47	10/90	F/L
5	49	10/90	F/L
5	51	10/90	F/L
5	53	10/90	F/L
5	55	10/90	F/L
5	57	10/90	F/L
6	2	10/90	F/L
6	22	10/90	F/L
6	24	10/90	F/L
6	26	10/90	F/L
6	28	10/90	F/L
6	30	10/90	F/L
6	32	10/90	F/L
6	34	10/90	F/L
6	36	10/90	F/L
6	38	10/90	F/L
6	40	10/90	F/L
6	42	10/90	F/L
6	44	10/90	F/L
6	46	10/90	F/L
6	48	10/90	F/L
6	50	10/90	F/L
6	52	10/90	F/L
6	54	10/90	F/L
6	56	10/90	F/L
6	58	10/90	F/L
6	60	10/90	F/L
6	62	10/90	F/L
6	64	10/90	F/L
7	1	10/90	F/L
7	21	10/90	F/L
7	23	10/90	F/L
7	25	10/90	F/L
7	27	10/90	F/L

Plant: CALVERT CLIFFS UNIT 3
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
7	29	10/90	F/L
7	31	10/90	F/L
7	33	10/90	F/L
7	35	10/90	F/L
7	37	10/90	F/L
7	39	10/90	F/L
7	41	10/90	F/L
7	43	10/90	F/L
7	45	10/90	F/L
7	47	10/90	F/L
7	49	10/90	F/L
7	51	10/90	F/L
7	53	10/90	F/L
7	55	10/90	F/L
7	57	10/90	F/L
7	61	10/90	F/L
7	123	10/90	F/L
1	131	10/90	F/L
1	133	10/90	F/L
1	135	10/90	F/L
1	137	10/90	F/L
8	22	10/90	F/L
8	24	10/90	F/L
8	26	10/90	F/L
8	28	10/90	F/L
8	30	10/90	F/L
8	32	10/90	F/L
8	34	10/90	F/L
8	36	10/90	F/L
8	38	10/90	F/L
8	40	10/90	F/L
8	42	10/90	F/L
8	44	10/90	F/L
8	46	10/90	F/L
8	48	10/90	F/L
8	50	10/90	F/L
8	52	10/90	F/L
8	54	10/90	F/L
8	56	10/90	F/L
8	58	10/90	F/L
8	60	10/90	F/L
8	122	10/90	F/L
1	124	10/90	F/L
1	126	10/90	F/L
1	128	10/90	F/L
1	130	10/90	F/L
9	1	10/90	F/L
9	3	10/90	F/L
9	5	10/90	F/L
9	7	10/90	F/L
9	9	10/90	F/L
9	11	10/90	F/L
9	13	10/90	F/L
9	15	10/90	F/L
9	17	10/90	F/L
9	19	10/90	F/L
9	41	10/90	F/L
9	43	10/90	F/L
9	45	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
15	43	10/90	F/L
15	45	10/90	F/L
15	47	10/90	F/L
15	49	10/90	F/L
15	51	10/90	F/L
15	139	10/90	F/L
15	167	10/90	F/L
16	23	10/90	F/L
16	25	10/90	F/L
16	27	10/90	F/L
16	29	10/90	F/L
16	31	10/90	F/L
16	33	10/90	F/L
16	35	10/90	F/L
16	37	10/90	F/L
16	39	10/90	F/L
16	41	10/90	F/L
16	43	10/90	F/L
16	45	10/90	F/L
16	47	10/90	F/L
16	49	10/90	F/L
16	51	10/90	F/L
16	53	10/90	F/L
16	55	10/90	F/L
16	57	10/90	F/L
17	3	10/90	F/L
17	5	10/90	F/L
17	7	10/90	F/L
17	9	10/90	F/L
17	11	10/90	F/L
17	13	10/90	F/L
17	15	10/90	F/L
17	17	10/90	F/L
17	19	10/90	F/L
17	21	10/90	F/L
17	23	10/90	F/L
17	25	10/90	F/L
17	27	10/90	F/L
17	29	10/90	F/L
17	31	10/90	F/L
17	33	10/90	F/L
17	35	10/90	F/L
17	37	10/90	F/L
17	39	10/90	F/L
17	41	10/90	F/L
17	43	10/90	F/L
17	45	10/90	F/L
17	47	10/90	F/L
17	49	10/90	F/L
17	51	10/90	F/L
17	53	10/90	F/L
18	3	10/90	F/L
18	5	10/90	F/L
18	7	10/90	F/L
18	9	10/90	F/L
18	11	10/90	F/L
18	13	10/90	F/L
18	15	10/90	F/L
18	17	10/90	F/L
18	19	10/90	F/L
18	21	10/90	F/L
18	23	10/90	F/L
18	25	10/90	F/L
18	27	10/90	F/L
18	29	10/90	F/L
18	31	10/90	F/L
18	33	10/90	F/L
18	35	10/90	F/L
18	37	10/90	F/L
18	39	10/90	F/L
18	41	10/90	F/L
18	43	10/90	F/L
18	45	10/90	F/L
18	47	10/90	F/L
18	49	10/90	F/L
18	51	10/90	F/L
18	53	10/90	F/L
19	3	10/90	F/L
19	5	10/90	F/L
19	7	10/90	F/L
19	9	10/90	F/L
19	11	10/90	F/L
19	13	10/90	F/L
19	15	10/90	F/L
19	17	10/90	F/L
19	19	10/90	F/L
19	21	10/90	F/L
19	23	10/90	F/L
19	25	10/90	F/L
19	27	10/90	F/L
19	29	10/90	F/L
19	31	10/90	F/L
19	33	10/90	F/L
19	35	10/90	F/L
19	37	10/90	F/L
19	39	10/90	F/L
19	41	10/90	F/L
19	43	10/90	F/L
19	45	10/90	F/L
19	47	10/90	F/L
19	49	10/90	F/L
19	51	10/90	F/L
19	53	10/90	F/L
20	2	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
20	4	10/90	F/L
00	6	10/90	F/L
00	32	10/90	F/L
00	144	10/90	F/L
00	148	10/90	F/L
00	166	10/90	F/L
00	33	10/90	F/L
00	7	10/90	F/L
00	145	10/90	F/L
00	147	10/90	F/L
00	165	10/90	F/L
00	2	10/90	F/L
00	4	10/90	F/L
00	6	10/90	F/L
00	106	10/90	F/L
00	140	10/90	F/L
00	166	10/90	F/L
00	33	10/90	F/L
00	5	10/90	F/L
00	63	10/90	F/L
00	145	10/90	F/L
00	165	10/90	F/L
00	44	10/90	F/L
00	6	10/90	F/L
00	64	10/90	F/L
00	166	10/90	F/L
00	33	10/90	F/L
00	35	10/90	F/L
00	129	10/90	F/L
00	165	10/90	F/L
00	4	10/90	F/L
00	24	10/90	F/L
00	62	10/90	F/L
00	64	10/90	F/L
00	164	10/90	F/L
00	7	10/90	F/L
00	15	10/90	F/L
00	63	10/90	F/L
00	129	10/90	F/L
00	145	10/90	F/L
00	165	10/90	F/L
00	4	10/90	F/L
00	11	10/90	F/L
00	128	10/90	F/L
00	130	10/90	F/L
00	164	10/90	F/L
00	33	10/90	F/L
00	3	10/90	F/L
00	129	10/90	F/L
00	127	10/90	F/L
00	131	10/90	F/L
00	165	10/90	F/L
00	4	10/90	F/L
00	3	10/90	F/L
00	68	10/90	F/L
00	128	10/90	F/L
00	129	10/90	F/L
00	128	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
 EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
130	130	10/90	F/L
164	164	10/90	F/L
33	33	10/90	F/L
37	37	10/90	F/L
67	67	10/90	F/L
69	69	10/90	F/L
119	119	10/90	F/L
123	123	10/90	F/L
129	129	10/90	F/L
135	135	10/90	F/L
145	145	10/90	F/L
148	148	10/90	F/L
154	154	10/90	F/L
158	158	10/90	F/L
160	160	10/90	F/L
162	162	10/90	F/L
164	164	10/90	F/L
166	166	10/90	F/L
168	168	10/90	F/L
170	170	10/90	F/L
172	172	10/90	F/L
174	174	10/90	F/L
176	176	10/90	F/L
178	178	10/90	F/L
180	180	10/90	F/L
182	182	10/90	F/L
184	184	10/90	F/L
186	186	10/90	F/L
188	188	10/90	F/L
190	190	10/90	F/L
192	192	10/90	F/L
194	194	10/90	F/L
196	196	10/90	F/L
198	198	10/90	F/L
200	200	10/90	F/L
202	202	10/90	F/L
204	204	10/90	F/L
206	206	10/90	F/L
208	208	10/90	F/L
210	210	10/90	F/L
212	212	10/90	F/L
214	214	10/90	F/L
216	216	10/90	F/L
218	218	10/90	F/L
220	220	10/90	F/L
222	222	10/90	F/L
224	224	10/90	F/L
226	226	10/90	F/L
228	228	10/90	F/L
230	230	10/90	F/L
232	232	10/90	F/L
234	234	10/90	F/L
236	236	10/90	F/L
238	238	10/90	F/L
240	240	10/90	F/L
242	242	10/90	F/L
244	244	10/90	F/L
246	246	10/90	F/L
248	248	10/90	F/L
250	250	10/90	F/L
252	252	10/90	F/L
254	254	10/90	F/L
256	256	10/90	F/L
258	258	10/90	F/L
260	260	10/90	F/L
262	262	10/90	F/L
264	264	10/90	F/L
266	266	10/90	F/L
268	268	10/90	F/L
270	270	10/90	F/L
272	272	10/90	F/L
274	274	10/90	F/L
276	276	10/90	F/L
278	278	10/90	F/L
280	280	10/90	F/L
282	282	10/90	F/L
284	284	10/90	F/L
286	286	10/90	F/L
288	288	10/90	F/L
290	290	10/90	F/L
292	292	10/90	F/L
294	294	10/90	F/L
296	296	10/90	F/L
298	298	10/90	F/L
300	300	10/90	F/L
302	302	10/90	F/L
304	304	10/90	F/L
306	306	10/90	F/L
308	308	10/90	F/L
310	310	10/90	F/L
312	312	10/90	F/L
314	314	10/90	F/L
316	316	10/90	F/L
318	318	10/90	F/L
320	320	10/90	F/L
322	322	10/90	F/L
324	324	10/90	F/L
326	326	10/90	F/L
328	328	10/90	F/L
330	330	10/90	F/L
332	332	10/90	F/L
334	334	10/90	F/L
336	336	10/90	F/L
338	338	10/90	F/L
340	340	10/90	F/L
342	342	10/90	F/L
344	344	10/90	F/L
346	346	10/90	F/L
348	348	10/90	F/L
350	350	10/90	F/L
352	352	10/90	F/L
354	354	10/90	F/L
356	356	10/90	F/L
358	358	10/90	F/L
360	360	10/90	F/L
362	362	10/90	F/L
364	364	10/90	F/L
366	366	10/90	F/L
368	368	10/90	F/L
370	370	10/90	F/L
372	372	10/90	F/L
374	374	10/90	F/L
376	376	10/90	F/L
378	378	10/90	F/L
380	380	10/90	F/L
382	382	10/90	F/L
384	384	10/90	F/L
386	386	10/90	F/L
388	388	10/90	F/L
390	390	10/90	F/L
392	392	10/90	F/L
394	394	10/90	F/L
396	396	10/90	F/L
398	398	10/90	F/L
400	400	10/90	F/L
402	402	10/90	F/L
404	404	10/90	F/L
406	406	10/90	F/L
408	408	10/90	F/L
410	410	10/90	F/L
412	412	10/90	F/L
414	414	10/90	F/L
416	416	10/90	F/L
418	418	10/90	F/L
420	420	10/90	F/L
422	422	10/90	F/L
424	424	10/90	F/L
426	426	10/90	F/L
428	428	10/90	F/L
430	430	10/90	F/L
432	432	10/90	F/L
434	434	10/90	F/L
436	436	10/90	F/L
438	438	10/90	F/L
440	440	10/90	F/L
442	442	10/90	F/L
444	444	10/90	F/L
446	446	10/90	F/L
448	448	10/90	F/L
450	450	10/90	F/L
452	452	10/90	F/L
454	454	10/90	F/L
456	456	10/90	F/L
458	458	10/90	F/L
460	460	10/90	F/L
462	462	10/90	F/L
464	464	10/90	F/L
466	466	10/90	F/L
468	468	10/90	F/L
470	470	10/90	F/L
472	472	10/90	F/L
474	474	10/90	F/L
476	476	10/90	F/L
478	478	10/90	F/L
480	480	10/90	F/L
482	482	10/90	F/L
484	484	10/90	F/L
486	486	10/90	F/L
488	488	10/90	F/L
490	490	10/90	F/L
492	492	10/90	F/L
494	494	10/90	F/L
496	496	10/90	F/L
498	498	10/90	F/L
500	500	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
37	91	10/90	F/L
37	97	10/90	F/L
37	163	10/90	F/L
38	4	10/90	F/L
38	88	10/90	F/L
38	90	10/90	F/L
38	164	10/90	F/L
39	5	10/90	F/L
39	27	10/90	F/L
39	89	10/90	F/L
39	105	10/90	F/L
39	163	10/90	F/L
40	6	10/90	F/L
40	163	10/90	F/L
41	5	10/90	F/L
41	107	10/90	F/L
41	163	10/90	F/L
42	6	10/90	F/L
42	32	10/90	F/L
42	66	10/90	F/L
42	84	10/90	F/L
42	102	10/90	F/L
42	136	10/90	F/L
42	162	10/90	F/L
43	5	10/90	F/L
43	31	10/90	F/L
43	33	10/90	F/L
43	53	10/90	F/L
43	65	10/90	F/L
43	67	10/90	F/L
43	101	10/90	F/L
43	103	10/90	F/L
43	135	10/90	F/L
43	137	10/90	F/L
43	139	10/90	F/L
43	163	10/90	F/L
44	6	10/90	F/L
44	30	10/90	F/L
44	34	10/90	F/L
44	38	10/90	F/L
44	64	10/90	F/L
44	68	10/90	F/L
44	100	10/90	F/L
44	104	10/90	F/L
44	134	10/90	F/L
44	138	10/90	F/L
44	162	10/90	F/L
45	7	10/90	F/L
45	31	10/90	F/L
45	33	10/90	F/L
45	65	10/90	F/L
45	67	10/90	F/L
45	79	10/90	F/L
45	101	10/90	F/L
45	103	10/90	F/L
45	135	10/90	F/L
45	137	10/90	F/L
45	161	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>R/W</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
46	6	10/90	F/L
46	32	10/90	F/L
46	66	10/90	F/L
46	102	10/90	F/L
46	136	10/90	F/L
46	162	10/90	F/L
47	7	10/90	F/L
47	69	10/90	F/L
47	161	10/90	F/L
48	6	10/90	F/L
48	162	10/90	F/L
49	7	10/90	F/L
49	161	10/90	F/L
50	8	10/90	F/L
50	38	10/90	F/L
50	40	10/90	F/L
50	160	10/90	F/L
51	7	10/90	F/L
51	161	10/90	F/L
52	8	10/90	F/L
52	160	10/90	F/L
53	7	10/90	F/L
53	139	10/90	F/L
53	161	10/90	F/L
54	8	10/90	F/L
54	42	10/90	F/L
54	70	10/90	F/L
54	81	10/90	F/L
54	90	10/90	F/L
54	120	10/90	F/L
54	138	10/90	F/L
54	140	10/90	F/L
54	160	10/90	F/L
55	9	10/90	F/L
55	21	10/90	F/L
55	89	10/90	F/L
55	91	10/90	F/L
55	127	10/90	F/L
55	137	10/90	F/L
55	141	10/90	F/L
55	143	10/90	F/L
55	159	10/90	F/L
56	8	10/90	F/L
56	22	10/90	F/L
56	88	10/90	F/L
56	92	10/90	F/L
56	98	10/90	F/L
56	138	10/90	F/L
56	140	10/90	F/L
56	144	10/90	F/L
56	160	10/90	F/L
57	9	10/90	F/L
57	21	10/90	F/L
57	23	10/90	F/L
57	89	10/90	F/L
57	91	10/90	F/L
57	97	10/90	F/L
57	99	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
57	139	10/90	F/L
57	159	10/90	F/L
58	10	10/90	F/L
58	30	10/90	F/L
58	90	10/90	F/L
58	158	10/90	F/L
59	5	10/90	F/L
59	21	10/90	F/L
59	23	10/90	F/L
59	97	10/90	F/L
59	99	10/90	F/L
59	131	10/90	F/L
59	159	10/90	F/L
60	10	10/90	F/L
60	22	10/90	F/L
60	98	10/90	F/L
60	158	10/90	F/L
61	11	10/90	F/L
61	21	10/90	F/L
61	63	10/90	F/L
61	157	10/90	F/L
62	10	10/90	F/L
62	52	10/90	F/L
62	70	10/90	F/L
62	158	10/90	F/L
63	11	10/90	F/L
63	51	10/90	F/L
63	53	10/90	F/L
63	157	10/90	F/L
64	12	10/90	F/L
64	20	10/90	F/L
64	156	10/90	F/L
65	11	10/90	F/L
65	17	10/90	F/L
65	51	10/90	F/L
65	53	10/90	F/L
65	109	10/90	F/L
65	157	10/90	F/L
66	12	10/90	F/L
66	52	10/90	F/L
66	72	10/90	F/L
66	156	10/90	F/L
67	11	10/90	F/L
67	95	10/90	F/L
67	101	10/90	F/L
67	157	10/90	F/L
68	12	10/90	F/L
68	102	10/90	F/L
68	108	10/90	F/L
68	156	10/90	F/L
69	13	10/90	F/L
69	155	10/90	F/L
70	14	10/90	F/L
70	40	10/90	F/L
70	78	10/90	F/L
70	154	10/90	F/L
71	13	10/90	F/L
71	77	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>S-W</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
71	155	10/90	F/L
72	14	10/90	F/L
72	94	10/90	F/L
72	110	10/90	F/L
72	152	10/90	F/L
72	154	10/90	F/L
73	13	10/90	F/L
73	21	10/90	F/L
73	137	10/90	F/L
73	155	10/90	F/L
74	14	10/90	F/L
74	88	10/90	F/L
74	154	10/90	F/L
75	15	10/90	F/L
75	23	10/90	F/L
75	87	10/90	F/L
75	89	10/90	F/L
75	153	10/90	F/L
76	16	10/90	F/L
76	86	10/90	F/L
76	90	10/90	F/L
76	94	10/90	F/L
76	98	10/90	F/L
76	152	10/90	F/L
77	15	10/90	F/L
77	57	10/90	F/L
77	79	10/90	F/L
77	87	10/90	F/L
77	89	10/90	F/L
77	153	10/90	F/L
78	16	10/90	F/L
78	82	10/90	F/L
78	84	10/90	F/L
78	88	10/90	F/L
78	118	10/90	F/L
78	152	10/90	F/L
79	17	10/90	F/L
79	23	10/90	F/L
79	83	10/90	F/L
79	85	10/90	F/L
79	97	10/90	F/L
79	151	10/90	F/L
80	16	10/90	F/L
80	22	10/90	F/L
80	24	10/90	F/L
80	82	10/90	F/L
80	86	10/90	F/L
80	96	10/90	F/L
80	98	10/90	F/L
80	152	10/90	F/L
81	17	10/90	F/L
81	21	10/90	F/L
81	61	10/90	F/L
81	83	10/90	F/L
81	87	10/90	F/L
81	95	10/90	F/L
81	99	10/90	F/L
81	101	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
ag6: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
81	105	10/90	F/L
81	151	10/90	F/L
82	18	10/90	F/L
82	22	10/90	F/L
82	24	10/90	F/L
82	62	10/90	F/L
82	84	10/90	F/L
82	87	10/90	F/L
82	94	10/90	F/L
82	98	10/90	F/L
82	150	10/90	F/L
83	17	10/90	F/L
83	19	10/90	F/L
83	23	10/90	F/L
83	31	10/90	F/L
83	85	10/90	F/L
83	95	10/90	F/L
83	97	10/90	F/L
83	151	10/90	F/L
84	18	10/90	F/L
84	24	10/90	F/L
84	74	10/90	F/L
84	76	10/90	F/L
84	82	10/90	F/L
84	86	10/90	F/L
84	94	10/90	F/L
84	96	10/90	F/L
84	104	10/90	F/L
84	112	10/90	F/L
84	142	10/90	F/L
84	150	10/90	F/L
85	19	10/90	F/L
85	63	10/90	F/L
85	73	10/90	F/L
85	75	10/90	F/L
85	125	10/90	F/L
85	137	10/90	F/L
85	149	10/90	F/L
86	20	10/90	F/L
86	28	10/90	F/L
86	72	10/90	F/L
86	76	10/90	F/L
86	92	10/90	F/L
86	94	10/90	F/L
86	128	10/90	F/L
86	148	10/90	F/L
87	19	10/90	F/L
87	27	10/90	F/L
87	29	10/90	F/L
87	35	10/90	F/L
87	73	10/90	F/L
87	75	10/90	F/L
87	85	10/90	F/L
87	129	10/90	F/L
87	133	10/90	F/L
87	149	10/90	F/L
88	20	10/90	F/L
88	26	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
88	30	10/90	F/L
88	74	10/90	F/L
88	148	10/90	F/L
89	21	10/90	F/L
89	27	10/90	F/L
89	29	10/90	F/L
89	55	10/90	F/L
89	85	10/90	F/L
89	147	10/90	F/L
90	22	10/90	F/L
90	28	10/90	F/L
90	34	10/90	F/L
90	38	10/90	F/L
90	40	10/90	F/L
90	42	10/90	F/L
90	44	10/90	F/L
90	46	10/90	F/L
90	48	10/90	F/L
90	50	10/90	F/L
90	52	10/90	F/L
90	84	10/90	F/L
90	120	10/90	F/L
90	146	10/90	F/L
91	21	10/90	F/L
91	37	10/90	F/L
91	39	10/90	F/L
91	41	10/90	F/L
91	43	10/90	F/L
91	45	10/90	F/L
91	47	10/90	F/L
91	49	10/90	F/L
91	51	10/90	F/L
91	83	10/90	F/L
91	85	10/90	F/L
91	113	10/90	F/L
91	119	10/90	F/L
91	121	10/90	F/L
91	139	10/90	F/L
91	147	10/90	F/L
92	22	10/90	F/L
92	26	10/90	F/L
92	38	10/90	F/L
92	40	10/90	F/L
92	42	10/90	F/L
92	44	10/90	F/L
92	46	10/90	F/L
92	50	10/90	F/L
92	52	10/90	F/L
92	82	10/90	F/L
92	86	10/90	F/L
92	118	10/90	F/L
92	122	10/90	F/L
92	146	10/90	F/L
93	23	10/90	F/L
93	25	10/90	F/L
93	27	10/90	F/L
93	37	10/90	F/L
93	39	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
93	41	10/90	F/L
93	43	10/90	F/L
93	45	10/90	F/L
93	47	10/90	F/L
93	49	10/90	F/L
93	51	10/90	F/L
93	83	10/90	F/L
93	85	10/90	F/L
93	103	10/90	F/L
93	119	10/90	F/L
93	121	10/90	F/L
93	127	10/90	F/L
93	145	10/90	F/L
94	24	10/90	F/L
94	38	10/90	F/L
94	40	10/90	F/L
94	42	10/90	F/L
94	44	10/90	F/L
94	46	10/90	F/L
94	48	10/90	F/L
94	50	10/90	F/L
94	52	10/90	F/L
94	74	10/90	F/L
94	84	10/90	F/L
94	120	10/90	F/L
94	130	10/90	F/L
94	144	10/90	F/L
95	23	10/90	F/L
95	25	10/90	F/L
95	27	10/90	F/L
95	37	10/90	F/L
95	39	10/90	F/L
95	41	10/90	F/L
95	43	10/90	F/L
95	45	10/90	F/L
95	47	10/90	F/L
95	49	10/90	F/L
95	51	10/90	F/L
95	67	10/90	F/L
95	93	10/90	F/L
95	107	10/90	F/L
95	111	10/90	F/L
95	127	10/90	F/L
95	135	10/90	F/L
95	139	10/90	F/L
95	145	10/90	F/L
96	24	10/90	F/L
96	26	10/90	F/L
96	38	10/90	F/L
96	40	10/90	F/L
96	42	10/90	F/L
96	44	10/90	F/L
96	46	10/90	F/L
96	48	10/90	F/L
96	50	10/90	F/L
96	52	10/90	F/L
96	66	10/90	F/L
96	68	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

ROW	LINE	OUTAGE	LENGTH INSPECTED
96	94	10/90	F/L
96	112	10/90	F/L
96	144	10/90	F/L
97	25	10/90	F/L
97	33	10/90	F/L
97	37	10/90	F/L
97	39	10/90	F/L
97	41	10/90	F/L
97	43	10/90	F/L
97	45	10/90	F/L
97	47	10/90	F/L
97	49	10/90	F/L
97	51	10/90	F/L
97	65	10/90	F/L
97	69	10/90	F/L
97	97	10/90	F/L
97	105	10/90	F/L
97	143	10/90	F/L
98	26	10/90	F/L
98	38	10/90	F/L
98	40	10/90	F/L
98	42	10/90	F/L
98	44	10/90	F/L
98	46	10/90	F/L
98	48	10/90	F/L
98	50	10/90	F/L
98	52	10/90	F/L
98	54	10/90	F/L
98	66	10/90	F/L
98	68	10/90	F/L
98	142	10/90	F/L
99	25	10/90	F/L
99	37	10/90	F/L
99	39	10/90	F/L
99	41	10/90	F/L
99	43	10/90	F/L
99	45	10/90	F/L
99	47	10/90	F/L
99	49	10/90	F/L
99	51	10/90	F/L
99	67	10/90	F/L
99	143	10/90	F/L
100	26	10/90	F/L
100	38	10/90	F/L
100	40	10/90	F/L
100	42	10/90	F/L
100	44	10/90	F/L
100	46	10/90	F/L
100	48	10/90	F/L
100	50	10/90	F/L
100	52	10/90	F/L
100	142	10/90	F/L
101	27	10/90	F/L
101	37	10/90	F/L
101	39	10/90	F/L
101	41	10/90	F/L
101	43	10/90	F/L
101	45	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
101	47	10/90	F/L
101	49	10/90	F/L
101	51	10/90	F/L
101	109	10/90	F/L
101	141	10/90	F/L
102	28	10/90	F/L
102	38	10/90	F/L
102	40	10/90	F/L
102	42	10/90	F/L
102	44	10/90	F/L
102	46	10/90	F/L
102	48	10/90	F/L
102	50	10/90	F/L
102	52	10/90	F/L
102	140	10/90	F/L
103	29	10/90	F/L
103	37	10/90	F/L
103	39	10/90	F/L
103	41	10/90	F/L
103	43	10/90	F/L
103	45	10/90	F/L
103	47	10/90	F/L
103	49	10/90	F/L
103	51	10/90	F/L
103	115	10/90	F/L
103	139	10/90	F/L
104	28	10/90	F/L
104	38	10/90	F/L
104	40	10/90	F/L
104	42	10/90	F/L
104	44	10/90	F/L
104	46	10/90	F/L
104	48	10/90	F/L
104	50	10/90	F/L
104	52	10/90	F/L
104	68	10/90	F/L
104	88	10/90	F/L
104	98	10/90	F/L
104	110	10/90	F/L
104	126	10/90	F/L
104	140	10/90	F/L
105	29	10/90	F/L
105	37	10/90	F/L
105	39	10/90	F/L
105	41	10/90	F/L
105	43	10/90	F/L
105	45	10/90	F/L
105	47	10/90	F/L
105	49	10/90	F/L
105	51	10/90	F/L
105	87	10/90	F/L
105	89	10/90	F/L
105	139	10/90	F/L
106	30	10/90	F/L
106	38	10/90	F/L
106	40	10/90	F/L
106	42	10/90	F/L
106	44	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
106	46	10/90	F/L
106	48	10/90	F/L
106	50	10/90	F/L
106	52	10/90	F/L
106	86	10/90	F/L
106	90	10/90	F/L
106	138	10/90	F/L
107	31	10/90	F/L
107	37	10/90	F/L
107	39	10/90	F/L
107	41	10/90	F/L
107	43	10/90	F/L
107	45	10/90	F/L
107	47	10/90	F/L
107	49	10/90	F/L
107	51	10/90	F/L
107	77	10/90	F/L
107	87	10/90	F/L
107	89	10/90	F/L
107	137	10/90	F/L
108	32	10/90	F/L
108	38	10/90	F/L
108	40	10/90	F/L
108	42	10/90	F/L
108	44	10/90	F/L
108	46	10/90	F/L
108	48	10/90	F/L
108	50	10/90	F/L
108	52	10/90	F/L
108	62	10/90	F/L
108	88	10/90	F/L
108	112	10/90	F/L
108	136	10/90	F/L
109	33	10/90	F/L
109	37	10/90	F/L
109	39	10/90	F/L
109	41	10/90	F/L
109	43	10/90	F/L
109	45	10/90	F/L
109	47	10/90	F/L
109	49	10/90	F/L
109	51	10/90	F/L
109	77	10/90	F/L
109	83	10/90	F/L
109	101	10/90	F/L
109	135	10/90	F/L
110	34	10/90	F/L
110	38	10/90	F/L
110	40	10/90	F/L
110	42	10/90	F/L
110	44	10/90	F/L
110	46	10/90	F/L
110	48	10/90	F/L
110	50	10/90	F/L
110	52	10/90	F/L
110	62	10/90	F/L
110	66	10/90	F/L
110	134	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH I NSPECTED</u>
111	35	10/90	F/L
111	37	10/90	F/L
111	39	10/90	F/L
111	41	10/90	F/L
111	43	10/90	F/L
111	45	10/90	F/L
111	47	10/90	F/L
111	49	10/90	F/L
111	51	10/90	F/L
111	63	10/90	F/L
111	67	10/90	F/L
111	83	10/90	F/L
111	111	10/90	F/L
111	119	10/90	F/L
111	133	10/90	F/L
112	34	10/90	F/L
112	38	10/90	F/L
112	40	10/90	F/L
112	42	10/90	F/L
112	44	10/90	F/L
112	46	10/90	F/L
112	48	10/90	F/L
112	50	10/90	F/L
112	52	10/90	F/L
112	102	10/90	F/L
112	134	10/90	F/L
113	36	10/90	F/L
113	37	10/90	F/L
113	39	10/90	F/L
113	41	10/90	F/L
113	43	10/90	F/L
113	45	10/90	F/L
113	47	10/90	F/L
113	49	10/90	F/L
113	51	10/90	F/L
113	133	10/90	F/L
114	36	10/90	F/L
114	38	10/90	F/L
114	40	10/90	F/L
114	42	10/90	F/L
114	44	10/90	F/L
114	46	10/90	F/L
114	48	10/90	F/L
114	50	10/90	F/L
114	52	10/90	F/L
114	102	10/90	F/L
114	132	10/90	F/L
115	37	10/90	F/L
115	39	10/90	F/L
115	41	10/90	F/L
115	43	10/90	F/L
115	45	10/90	F/L
115	47	10/90	F/L
115	49	10/90	F/L
115	51	10/90	F/L
115	131	10/90	F/L
116	38	10/90	F/L
116	40	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
116	42	10/90	F/L
116	44	10/90	F/L
116	46	10/90	F/L
116	48	10/90	F/L
116	50	10/90	F/L
116	52	10/90	F/L
116	54	10/90	F/L
116	96	10/90	F/L
116	120	10/90	F/L
117	39	10/90	F/L
117	41	10/90	F/L
117	43	10/90	F/L
117	45	10/90	F/L
117	49	10/90	F/L
117	51	10/90	F/L
117	117	10/90	F/L
117	127	10/90	F/L
117	129	10/90	F/L
118	40	10/90	F/L
118	42	10/90	F/L
118	44	10/90	F/L
118	46	10/90	F/L
118	48	10/90	F/L
118	50	10/90	F/L
118	52	10/90	F/L
118	116	10/90	F/L
118	118	10/90	F/L
118	128	10/90	F/L
119	41	10/90	F/L
119	43	10/90	F/L
119	45	10/90	F/L
119	47	10/90	F/L
119	49	10/90	F/L
119	51	10/90	F/L
119	75	10/90	F/L
119	115	10/90	F/L
119	119	10/90	F/L
119	127	10/90	F/L
120	42	10/90	F/L
120	44	10/90	F/L
120	46	10/90	F/L
120	48	10/90	F/L
120	50	10/90	F/L
120	52	10/90	F/L
120	94	10/90	F/L
120	116	10/90	F/L
120	118	10/90	F/L
120	126	10/90	F/L
121	45	10/90	F/L
121	47	10/90	F/L
121	49	10/90	F/L
121	51	10/90	F/L
121	55	10/90	F/L
121	61	10/90	F/L
121	63	10/90	F/L
121	67	10/90	F/L
121	69	10/90	F/L
121	73	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
121	75	10/90	F/L
121	77	10/90	F/L
121	79	10/90	F/L
121	81	10/90	F/L
121	85	10/90	F/L
121	87	10/90	F/L
121	89	10/90	F/L
121	91	10/90	F/L
121	93	10/90	F/L
121	95	10/90	F/L
121	97	10/90	F/L
121	99	10/90	F/L
121	103	10/90	F/L
121	105	10/90	F/L
121	109	10/90	F/L
121	111	10/90	F/L
121	113	10/90	F/L
121	115	10/90	F/L
121	117	10/90	F/L
121	119	10/90	F/L
121	121	10/90	F/L
121	123	10/90	F/L
121	125	10/90	F/L
122	44	10/90	F/L
122	46	10/90	F/L
122	48	10/90	F/L
122	50	10/90	F/L
122	52	10/90	F/L
122	72	10/90	F/L
122	88	10/90	F/L
122	92	10/90	F/L
122	124	10/90	F/L
123	45	10/90	F/L
123	47	10/90	F/L
123	49	10/90	F/L
123	51	10/90	F/L
123	107	10/90	F/L
123	123	10/90	F/L
124	46	10/90	F/L
124	48	10/90	F/L
124	50	10/90	F/L
124	52	10/90	F/L
124	120	10/90	F/L
124	122	10/90	F/L
125	47	10/90	F/L
125	49	10/90	F/L
125	51	10/90	F/L
125	101	10/90	F/L
125	121	10/90	F/L
126	48	10/90	F/L
126	50	10/90	F/L
126	52	10/90	F/L
126	64	10/90	F/L
126	112	10/90	F/L
126	120	10/90	F/L
127	49	10/90	F/L
127	51	10/90	F/L
127	119	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
128	50	10/90	F/L
128	52	10/90	F/L
128	118	10/90	F/L
129	51	10/90	F/L
129	53	10/90	F/L
129	95	10/90	F/L
129	115	10/90	F/L
129	117	10/90	F/L
130	52	10/90	F/L
130	54	10/90	F/L
130	114	10/90	F/L
130	116	10/90	F/L
131	55	10/90	F/L
131	65	10/90	F/L
131	107	10/90	F/L
131	113	10/90	F/L
132	56	10/90	F/L
132	74	10/90	F/L
132	104	10/90	F/L
132	112	10/90	F/L
133	57	10/90	F/L
133	59	10/90	F/L
133	97	10/90	F/L
133	107	10/90	F/L
133	109	10/90	F/L
133	111	10/90	F/L
134	58	10/90	F/L
134	60	10/90	F/L
134	66	10/90	F/L
134	72	10/90	F/L
134	74	10/90	F/L
134	108	10/90	F/L
134	110	10/90	F/L
135	61	10/90	F/L
135	63	10/90	F/L
135	65	10/90	F/L
135	67	10/90	F/L
135	95	10/90	F/L
135	105	10/90	F/L
135	107	10/90	F/L
136	62	10/90	F/L
136	64	10/90	F/L
136	68	10/90	F/L
136	80	10/90	F/L
136	102	10/90	F/L
136	104	10/90	F/L
136	106	10/90	F/L
137	65	10/90	F/L
137	67	10/90	F/L
137	69	10/90	F/L
137	71	10/90	F/L
137	97	10/90	F/L
137	99	10/90	F/L
137	101	10/90	F/L
137	103	10/90	F/L
138	68	10/90	F/L
138	70	10/90	F/L
138	72	10/90	F/L

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

Tubes INSPECTED - Eddy Current
EC: F/L

<u>ROW</u>	<u>LINE</u>	<u>OUTAGE</u>	<u>LENGTH INSPECTED</u>
138	74	10/90	F/L
138	80	10/90	F/L
138	88	10/90	F/L
138	94	10/90	F/L
138	96	10/90	F/L
138	98	10/90	F/L
138	100	10/90	F/L
139	73	10/90	F/L
139	75	10/90	F/L
139	77	10/90	F/L
139	79	10/90	F/L
139	81	10/90	F/L
139	83	10/90	F/L
139	85	10/90	F/L
139	87	10/90	F/L
139	89	10/90	F/L
139	91	10/90	F/L
139	93	10/90	F/L
139	95	10/90	F/L
140	76	10/90	F/L
140	78	10/90	F/L
140	80	10/90	F/L
140	82	10/90	F/L
140	84	10/90	F/L
140	86	10/90	F/L
140	88	10/90	F/L
140	90	10/90	F/L
140	92	10/90	F/L

Outage : 10/90

Total = 1246

STEAM GENERATOR 22

E. List with Plot of Tubes Dented

Dent Indications - All Elevations

PLANT: CALVERT CLIFFS UNIT 2
OUTAGE: 10/90

GENERATOR: 22

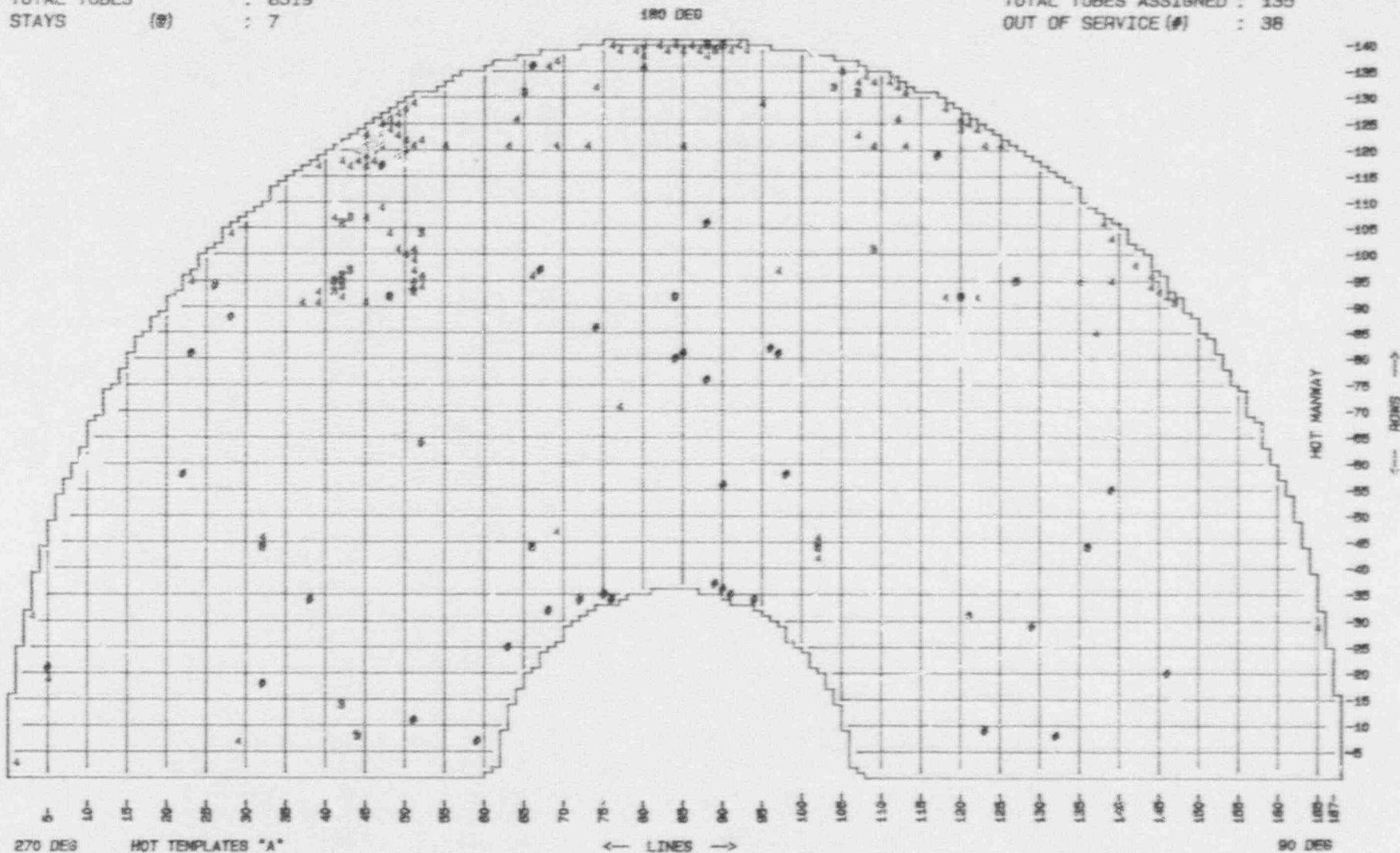
1 = >74.99 (0)
4 = <25.00 (115)

2 = 50.00-74.99 (3)

3 = 25.00-49.99 (17)

TOTAL TUBES : 8519
STAYS (8) : 7

TOTAL TUBES ASSIGNED : 135
OUT OF SERVICE (#) : 38



Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

QUERY: Dent Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
3	1	10/90	DENT		5.23	C1	+18.90
7	29	10/90	DENT		5.29	C4	+18.90
8	44	10/90	DENT		49.16	C6	+6.20
14	42	10/90	DENT		28.44	H5	+37.33
19	5	10/90	DENT		7.15	VM	
29	165	10/90	DENT		10.24	VM	
31	2	10/90	DENT		5.75	C5	+12.30
42	102	10/90	DENT		17.21	C6	+17.20
45	32	10/90	DENT		12.02	C6	+14.70
46	102	10/90	DENT		5.00	H4	+29.60
47	69	10/90	DENT		5.07	CTS-SF	+29.50
71	77	10/90	DENT		13.83	H6	+22.30
		10/90	DENT		5.26	H6	+23.10
85	137	10/90	DENT		5.79	C4	+7.80
91	37	10/90	DENT		6.11	H8	+1.00
		10/90	DENT		9.96	C8	+13.60
		10/90	DENT		10.01	C8	+12.60
		10/90	DENT		5.57	C8	+4.30
		10/90	DENT		5.25	C8	+3.10
91	39	10/90	DENT		5.53	C9	+1.10
91	45	10/90	DENT		8.11	H8	+14.40
		10/90	DENT		10.51	C9	+1.60
91	147	10/90	DENT		12.09	H9	+2.00
		10/90	DENT		19.60	C9	+1.20
		10/90	DENT		27.83	C9	
		10/90	DENT		15.14	C8	+17.30
		10/90	DENT		7.14	C8	+16.40
		10/90	DENT		5.10	C8	+15.70
		10/90	DENT		7.94	C8	+14.90
		10/90	DENT		8.62	C8	+14.40
92	42	10/90	DENT		8.35	H9	
92	118	10/90	DENT		13.06	C8	+10.20
		10/90	DENT		20.94	C9	
		10/90	DENT		12.78	H9	
92	122	10/90	DENT		5.78	H8	+1.40
		10/90	DENT		17.67	H8	+11.30
		10/90	DENT		11.34	H9	
		10/90	DENT		24.29	C9	
		10/90	DENT		12.52	C8	+1.90
		10/90	DENT		24.55	C8	+3.60
92	146	10/90	DENT		9.58	H9	
		10/90	DENT		9.42	C9	
93	39	10/90	DENT		18.25	H9	
93	41	10/90	DENT		9.30	H8	+15.70
		10/90	DENT		27.37	H8	+17.70
		10/90	DENT		8.25	H8	+18.80
		10/90	DENT		15.83	C8	+10.50
		10/90	DENT		36.87	C8	+9.40
		10/90	DENT		21.51	C8	+8.40
93	51	10/90	DENT		5.85	H8	+5.90
		10/90	DENT		10.61	H8	+20.70
		10/90	DENT		59.17	H9	
		10/90	DENT		69.44	C8	+20.30
		10/90	DENT		39.14	C8	+19.40
		10/90	DENT		9.78	C8	+10.00
		10/90	DENT		26.13	C8	+9.40
		10/90	DENT		11.88	C8	+9.00
		10/90	DENT		11.01	C8	+8.10
93	145	10/90	DENT		14.66	H8	+11.30
		10/90	DENT		6.21	H9	
		10/90	DENT		12.09	C8	+15.80
		10/90	DENT		23.61	C8	+15.30
		10/90	DENT		10.05	C8	+9.10
		10/90	DENT		19.60	C8	+8.60
		10/90	DENT		12.47	C8	+7.90
94	42	10/90	DENT		38.21	H9	
94	52	10/90	DENT		6.82	H9	

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

QUERY: Dent Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
94	144	10/90	DENT		5.86	H9	
		10/90	DENT		9.54	C9	
95	23	10/90	DENT		5.37	C9	
95	41	10/90	DENT		48.04	H9	
95	51	10/90	DENT		13.69	H9	
95	127	10/90	DENT		36.70	H9	
95	135	10/90	DENT		18.53	H9	
95	139	10/90	DENT		5.15	H9	
96	42	10/90	DENT		66.56	H9	
96	52	10/90	DENT		12.79	H9	
96	66	10/90	DENT		5.81	H8	+12.90
96	144	10/90	DENT		7.04	C9	
97	43	10/90	DENT		33.42	H9	
97	51	10/90	DENT		8.96	H8	+19.90
		10/90	DENT		5.44	C8	+12.20
97	97	10/90	DENT		11.43	H9	
98	142	10/90	DENT		6.37	C9	
99	51	10/90	DENT		16.07	H9	
100	50	10/90	DENT		13.84	H9	
101	49	10/90	DENT		6.76	H9	
101	51	10/90	DENT		24.92	H9	
101	109	10/90	DENT		5.52	H9	+ 0.90
		10/90	DENT		32.38	H9	+ 2.00
103	139	10/90	DENT		15.05	H9	
104	28	10/90	DENT		7.18	H9	+ 1.50
104	48	10/90	DENT		14.25	H9	
104	52	10/90	DENT		30.36	H9	
106	42	10/90	DENT		51.08	H9	
106	138	10/90	DENT		5.27	H9	
107	41	10/90	DENT		16.02	H9	
107	43	10/90	DENT		34.24	H9	
107	45	10/90	DENT		5.07	H9	
108	42	10/90	DENT		19.83	H9	
109	47	10/90	DENT		13.21	H9	
117	39	10/90	DENT		13.60	H9	+ 6.70
117	43	10/90	DENT		5.39	H9	+10.00
		10/90	DENT		6.17	H9	+20.90
		10/90	DENT		19.46	H10	
117	45	10/90	DENT		14.76	H10	
		10/90	DENT		8.17	C10	
118	42	10/90	DENT		8.92	H9	+14.30
		10/90	DENT		8.31	H10	
118	44	10/90	DENT		7.23	H10	
118	46	10/90	DENT		11.26	H10	
119	45	10/90	DENT		5.63	H10	
119	49	10/90	DENT		7.85	H10	
120	44	10/90	DENT		8.99	H10	
120	46	10/90	DENT		7.04	H9	+15.10
		10/90	DENT		9.34	H10	
120	50	10/90	DENT		5.84	H10	
121	45	10/90	DENT		12.50	H10	
121	47	10/90	DENT		7.43	H10	
121	51	10/90	DENT		5.56	H10	
121	55	10/90	DENT		21.26	H9	
121	63	10/90	DENT		10.21	H9	+19.10
121	69	10/90	DENT		18.29	H8	+21.50
		10/90	DENT		20.37	H9	+ 5.40
		10/90	DENT		8.13	H9	+16.40
		10/90	DENT		17.21	C9	+ 9.60
121	73	10/90	DENT		19.94	H10	
		10/90	DENT		9.93	C9	+ 7.30
121	85	10/90	DENT		5.32	H10	
121	109	10/90	DENT		6.81	H8	+15.60
121	113	10/90	DENT		6.66	VC	+ 2.00
121	123	10/90	DENT		10.81	C10	
121	125	10/90	DENT		8.20	H9	+ 2.80
		10/90	DENT		6.20	H9	+ 6.50

Plant: CALVERT CLIFFS UNIT 2
 Outage: 10/90

Steam Generator: 22

QUERY: Dent Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
		10/90	DENT		6.11	H9	+12.20
		10/90	DENT		8.94	H9	+15.60
		10/90	DENT		6.43	C8	+ 4.50
		10/90	DENT		10.16	C8	+ 8.20
		10/90	DENT		8.49	C8	+16.10
122	46	10/90	DENT		10.63	H10	
122	50	10/90	DENT		5.91	H10	
122	52	10/90	DENT		11.02	H9	
123	45	10/90	DENT		7.07	H9	
		10/90	DENT		15.63	H10	
		10/90	DENT		6.28	H9	+ 5.00
		10/90	DENT		15.70	H9	+11.50
		10/90	DENT		12.52	C10	
		10/90	DENT		6.53	C9	+ 7.60
123	47	10/90	DENT		16.10	H10	
123	49	10/90	DENT		5.06	H10	
123	107	10/90	DENT		7.67	VC	
124	48	10/90	DENT		13.79	H10	
124	120	10/90	DENT		5.10	C10	
124	122	10/90	DENT		12.56	C10	
125	47	10/90	DENT		11.15	H10	
125	49	10/90	DENT		10.40	H10	
125	121	10/90	DENT		5.44	C10	
126	48	10/90	DENT		8.61	H10	
126	64	10/90	DENT		5.22	H9	
126	112	10/90	DENT		9.09	H9	
126	120	10/90	DENT		7.87	C10	
127	49	10/90	DENT		18.02	H10	
128	50	10/90	DENT		11.11	H10	
128	118	10/90	DENT		7.51	H9	+ 7.80
		10/90	DENT		18.57	H9	+11.20
		10/90	DENT		7.39	C9	+20.20
129	51	10/90	DENT		5.19	H10	
129	95	10/90	DENT		8.69	H9	+13.70
131	65	10/90	DENT		29.69	H9	
131	107	10/90	DENT		30.43	H9	
131	113	10/90	DENT		7.77	H9	
132	74	10/90	DENT		14.89	H9	+ 2.40
		10/90	DENT		6.08	H9	+ 4.60
132	104	10/90	DENT		26.64	H9	
132	112	10/90	DENT		5.78	H9	
133	107	10/90	DENT		18.98	H9	
133	109	10/90	DENT		6.92	H9	
133	111	10/90	DENT		6.48	H9	+13.40
134	108	10/90	DENT		5.72	H9	
135	105	10/90	DENT		6.88	H9	
136	68	10/90	DENT		6.65	H10	
		10/90	DENT		10.60	C9	+20.80
		10/90	DENT		6.03	C8	+19.70
136	80	10/90	DENT		20.66	H10	
137	69	10/90	DENT		9.12	DH	+ 3.90
138	80	10/90	DENT		5.89	H10	
138	88	10/90	DENT		22.77	H10	
139	77	10/90	DENT		7.74	H10	
139	79	10/90	DENT		5.64	H10	
139	83	10/90	DENT		20.50	H10	
139	85	10/90	DENT		21.36	H10	
139	87	10	DENT		23.93	H10	
139	89	10/90	DENT		26.61	H10	
139	91	10/90	DENT		24.96	H10	
139	93	10/90	DENT		6.34	H9	
		10/90	DENT		5.39	H9	+ 1.40
		10/90	DENT		11.74	H9	+ 6.10
		10/90	DENT		8.04	H10	
140	76	10/90	DENT		15.82	H10	
140	80	10/90	DENT		14.82	H10	
140	82	10/90	DENT		9.08	H10	

Plant: CALVERT CLIFFS UNIT 2
Outage: 10/90

Steam Generator: 22

QUERY: Dent Indications - All Elevations

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
140	84	10/90	DENT		19.04	H10	
140	86	10/90	DENT		23.00	H10	
		10/90	DENT		6.80	C9	+20.40
140	88	10/90	DENT		34.93	H10	
140	90	10/90	DENT		26.74	H10	
140	92	10/90	DENT		20.20	H10	

TOTAL TUBES FOUND = 135
TOTAL INDICATIONS FOUND = 207

TOTAL TUBES IN INPUT FILE = 8519
TOTAL TUBES INSPECTED = 1246

STEAM GENERATOR 22

F. List with Plot of all Tubes Plugged

ALL TUBES PLUGGED

PLANT: CALVERT CLIFFS UNIT 2

GENERATOR 22

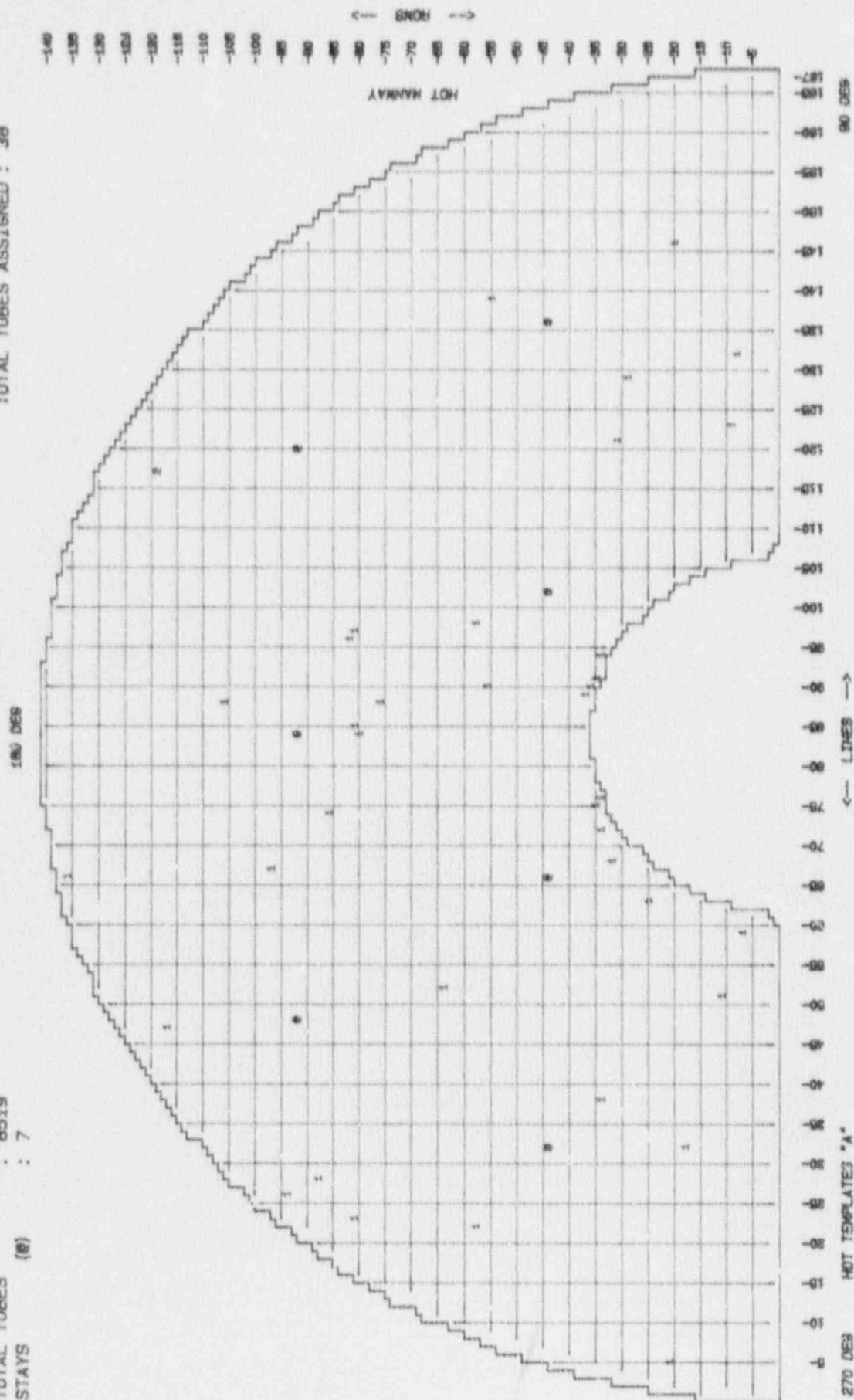
OUTAGES:	02/81	11/82	05/84	10/85	3/87	4/89	10/90	7\90
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 $\gamma = \text{MEOH} - \text{M} \quad (1977)$
$$2 = \text{CONG} \quad (4)$$

TOTAL TUBES	: 8519
STAYS (8)	: 7

STAYS (8)

TOTAL TUBES ASSIGNED : 38



Plant: CALVERT CLIFFS UNIT 2
 Outages: 02/81 11/82 05/84 10/85

3/87 4/89 10/90 7/90
 Steam Generator: 12

QUERY: ALL TUBES PLUGGED

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
7	59	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
8	132	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
9	123	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
11	51	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
18	32	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
20	146	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
21	5	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
25	63	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
29	129	11/82	PLUGGED	MECH-W		HTS-PF	
		11/82	PLUGGED	MECH-W		CTS-PF	
31	121	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
32	68	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
34	38	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
34	72	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
34	76	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
34	94	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
35	75	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
35	91	05/84	PLUGGED	MECH-W		HTS-PF	
		05/84	PLUGGED	MECH-W		CTS-PF	
36	90	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
37	89	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
55	139	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
56	90	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
58	22	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
58	98	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
64	52	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
76	88	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
80	84	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
81	23	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
81	85	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
81	97	05/84	PLUGGED	MECH-W		HTS-PF	
		05/84	PLUGGED	MECH-W		CTS-PF	
82	96	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
86	74	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
88	28	10/85	PLUGGED	MECH-W		HTS-PF	
		10/85	PLUGGED	MECH-W		CTS-PF	
94	26	4/89	PLUGGED	MECH-W		HTS-PF	
		4/89	PLUGGED	MECH-W		CTS-PF	
97	67	3/87	PLUGGED	MECH-W		HTS-PF	

Plant: CALVERT CLIFFS UNIT 2
Outages: 02/81 11/82 05/84 10/85 3/87 4/89 10/90 7/90 Steam Generator: 22

QUERY: ALL TUBES PLUGGED

ROW	LINE	OUTAGE	INDICATION	VALUE	VOLTS	LOCATION	INCHES
106	88	3/87	PLUGGED	MECH-W		CTS-PF	
		3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
117	47	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	
119	117	02/81	PLUGGED	CONST		HTS-PF	
		02/81	PLUGGED	CONST		CTS-PF	
136	66	3/87	PLUGGED	MECH-W		HTS-PF	
		3/87	PLUGGED	MECH-W		CTS-PF	

TOTAL TUBES FOUND = 38
TOTAL INDICATIONS FOUND = 76

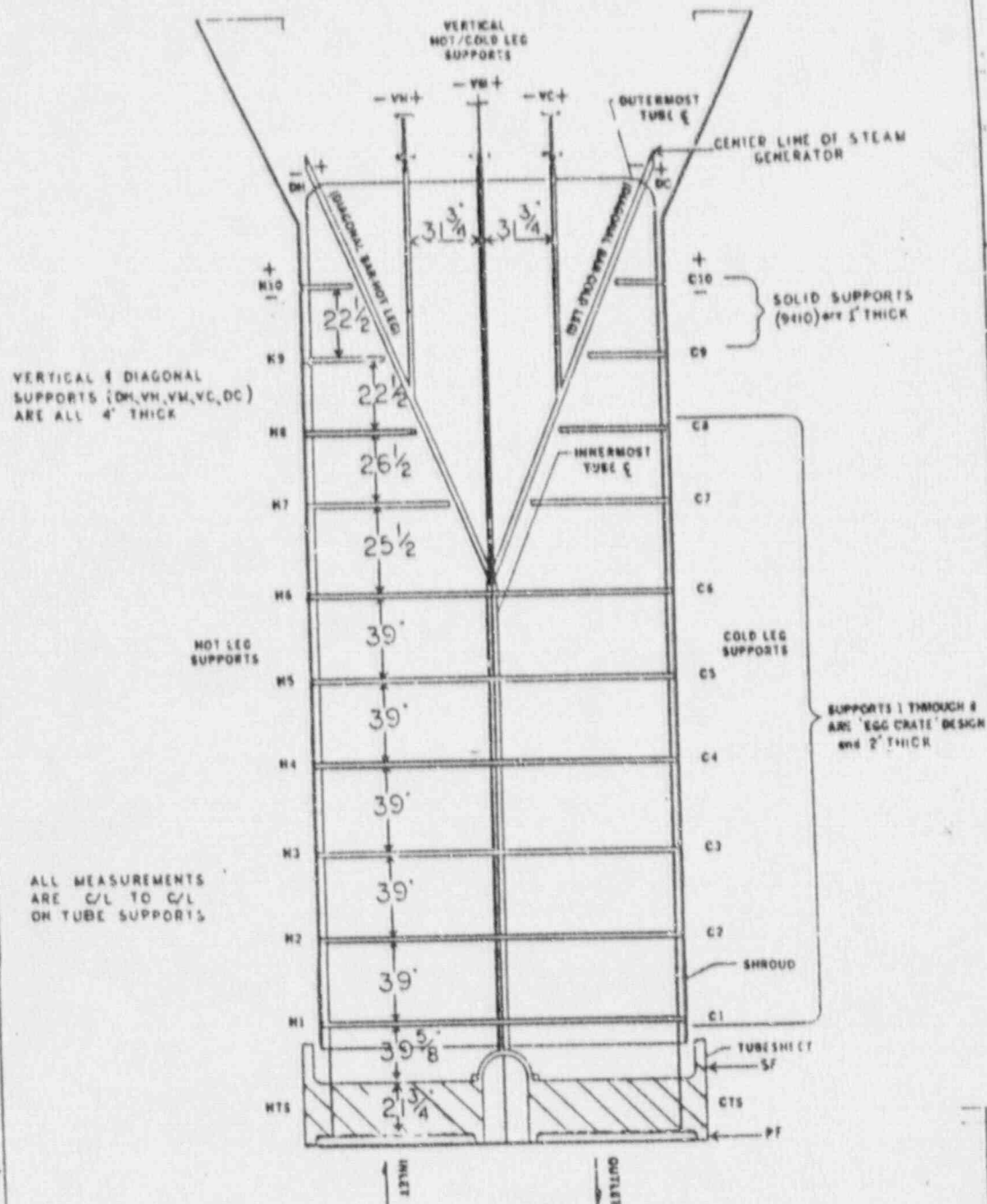
APPENDIX III

Steam Generator Inspection Information

- A. Steam Generator Support Location and Nomenclature
- B. Steam Generator Tube Sheet Pattern and Number System
- C. Eddy Current Inspection Acronyms

A. Steam Generator Support Location and Nomenclature

STEAM GENERATORS CNPP 1 & 2



Rows Contacting Supports Above 8th TS

ROWS	NO. OF SUPPORTS	SUPPORT DESIGNATIONS
1-9	1	VM
10-35	3	DH, VM, DC
36-65	6	H7, DH, VM, DC, C7, C8
66-73	7	H8, H7, DH, VM, DC, C7, C8
74-89	9	VH, H8, H7, DH, VM, DC, C7, C8, VC
90-115	11	H8, VH, H8, H7, DH, VM, DC, C7, C8, VC, C9
116-140	13	H10, H9, VH, H8, H7, DH, VM, DC, C7, C8, VC, C9, C10

B. S/C TUBE SHEET PATTERN AND NUMBERING SYSTEM

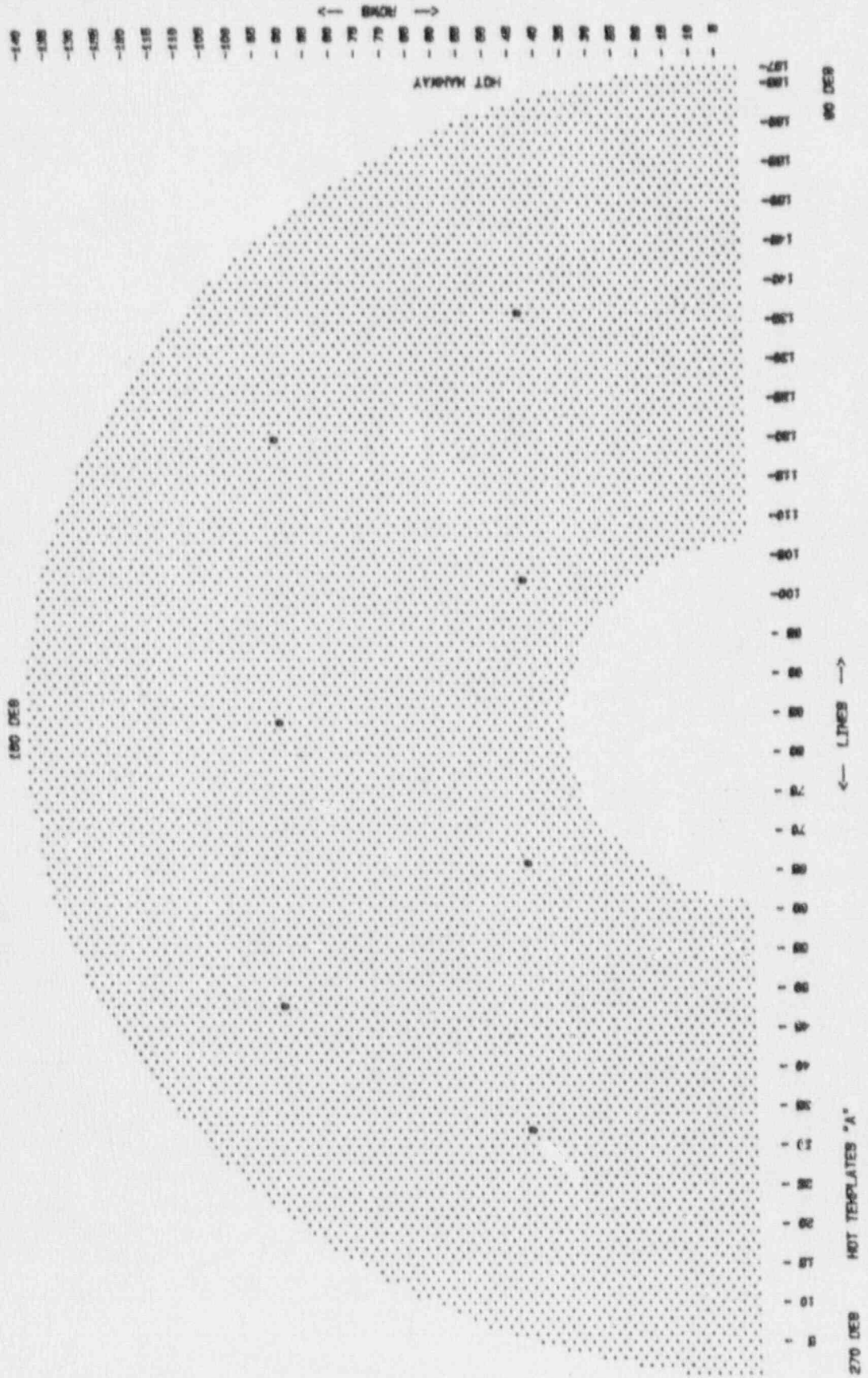
SAMPLE HOT LEG TUBE SHEET MAP

8519
TOTAL TUBES:
STAYS (8): 7

GENERATOR

PLANT: CALVERT CLIFFS

• TUBE LOCATIONS



C. EDDY CURRENT INSPECTION ACRONYMS

DNT - DENT
PLG - PLUG
PV - PERMEABILITY
INC - INCOMPLETE
RT - RETEST
RES - RESTRICTED
RBD - RETEST BAD DATA
DI - DISTORTED INDICATION
UDS - UNDEFINED SIGNAL
INF - INDICATION NOT FOUND
SQR - SQUIRREL
PID - POSITIVE IDENTIFICATION
NT - NO TEST
CU - COPPER
FIX - FIXTURE
TP - TEMPLATE PLUG
BLG - BULGE
IDI - INSIDE DIAMETER INDICATION
IDV - INSIDE DIAMETER VARIATION
INR - INDICATION NOT REPORTABLE
SLG - SLUDGE
XHR - EXTRA HARD ROLL
RTI - ROLL TRANSITION INDICATION
APT - ABSOLUTE POSITIVE TRACE
NDD - NO DETECTABLE DEGRADATION
NRH - NOT ROLLED HOT
NRC - NOT ROLLED COLD