

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

February 20, 1995

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 95-004
NL&P/PC
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
1994 ANNUAL STEAM GENERATOR INSERVICE INSPECTION REPORT

In accordance with the requirements of Technical Specification 4.19.F.b, Virginia Electric and Power Company submits herewith the 1994 Steam Generator Inservice Inspection Report for Surry Power Station Units 1 and 2. There is no information provided for Unit 2 because there were no steam generator tube inspections performed for Unit 2 during the calendar year 1994.

During the 1994 refueling outage for Surry Power Station Unit 1, the tubes in the "B" steam generator were examined. The information in Attachment 1 is a summary of the results of those examinations. These results include the number and extent of the tubes examined, location and characterization of each indication of an imperfection, and identification of the tubes that were plugged. Attachment 2 provides a glossary of the terms used in the report. Attachment 3 includes Surry Power Station Unit 1 tubesheet maps indicating plugged tubes, hot leg bobbin indications, cold leg bobbin indications, and rotating pancake coil test locations.

Should you require additional information, please contact us.

Very truly yours,



M. L. Bowling, Manager
Nuclear Licensing and Programs

Attachments

1. 1994 Annual Steam Generator Inservice Inspection Report for Surry Unit 1.
2. Glossary of Terms.
3. Tubesheet Maps.

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cc: U.S. Nuclear Regulatory Commission
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Mr. M. W. Branch
NRC Senior Resident Inspector
Surry Power Station

ATTACHMENT 1

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION UNIT 1

**1994 ANNUAL STEAM GENERATOR
INSERVICE INSPECTION REPORT**

VIRGINIA ELECTRIC AND POWER COMPANY

**SURRY UNIT-1
STEAM GENERATOR "B"
1994 EDDY CURRENT EXAMINATION**

<u>ROW</u>	<u>COL</u>	<u>IND</u>	<u>LOC</u>	<u>COMMENTS</u>
19	7	SAA	6H	
31	14	SAA	6H	
3	15	14	2H	
6	16	10	2C	
23	17	MAA	6H	
34	17	24	AV4	TUBE PREVENTIVELY PLUGGED
35	17	16	AV3	
24	18	SAA	6H	
34	19	22	AV2	TUBE PREVENTIVELY PLUGGED
31	21	SAA	4C	
33	21	17	7H	
38	21	19	AV1	
24	23	SAA	BPH	
39	23	19	AV3	TUBE PREVENTIVELY PLUGGED
39	23	20	AV4	TUBE PREVENTIVELY PLUGGED
34	24	SAA	6C	
13	26	SAA	2H	
28	26	SAA	TSC	
20	28	10	5H	
26	28	11	6H	
27	28	SAA	4H	
39	29	11	6H	
41	29	14	5H	
42	29	18	AV2	

**SURRY UNIT-1
STEAM GENERATOR "B"
1994 EDDY CURRENT EXAMINATION**

<u>ROW</u>	<u>COL</u>	<u>IND</u>	<u>LOC</u>	<u>COMMENTS</u>
42	29	SAA	7H	
25	31	MAA	6H	
43	31	21	AV2	TUBE PREVENTIVELY PLUGGED
13	32	SAA	TSH	
33	32	SCA	6C	
15	34	SCA	1C	
24	34	SAA	BPH	
3	35	SAA	TSH	
15	35	SCA	2C	
1	36	SAA	TSH	
33	36	SAA	4H	
10	37	19	3H	
15	37	19	1C	
36	38	SCA	6C	
36	38	SCA	TSC	
38	38	18	6H	
9	39	SAA	TSH	
11	40	10	5C	
20	40	SAA	TSH	
1	41	SAA	TSC	
17	41	13	6H	
21	42	SAA	TSH	
3	43	SAA	TSH	
6	43	SAA	TSH	

**SURRY UNIT-1
STEAM GENERATOR "B"
1994 EDDY CURRENT EXAMINATION**

<u>ROW</u>	<u>COL</u>	<u>IND</u>	<u>LOC</u>	<u>COMMENTS</u>
39	43	SAA	7H	
45	43	11	1C	
21	44	SAA	TSH	
2	45	SAA	TSH	
5	45	MAA	TSH	
7	45	SAA	2C	
13	46	SAA	TSH	
36	46	SCA	3C	
3	47	SAA	TSH	
45	47	SAA	TSC	
6	48	SAA	3C	
15	48	SAA	7C	
21	48	SAA	1C	
45	48	SAA	TSC	
11	49	16	2C	
12	49	SAA	TSH	
20	49	SAA	1C	
13	50	SAA	TSH	
28	51	SAA	1C	
22	52	SAA	2C	
27	52	SAA	6C	
40	52	18	TSC	
41	52	15	7C	

**SURRY UNIT-1
STEAM GENERATOR "B"
1994 EDDY CURRENT EXAMINATION**

<u>ROW</u>	<u>COL</u>	<u>IND</u>	<u>LOC</u>	<u>COMMENTS</u>
46	52	10	6C	
46	52	SAA	6C	
7	53	14	TSC	
43	53	SAA	5C	
40	54	SAA	2C	
16	55	SAA	5C	
45	55	10	BPH	
45	55	11	AV4	
3	56	SAA	TSH	
25	56	MAA	3C	
3	57	SAA	TSH	
37	57	11	2C	
37	57	13	2C	
1	58	SAA	TSC	
4	58	11	2C	
11	58	SAA	TSH	
20	58	MAA	6C	
34	58	16	AV2	
11	59	SAA	3C	
16	59	18	7C	
43	59	SCA	7C	
28	62	SAA	BPC	
1	63	SAA	5H	
32	63	SAA	2H	
43	64	SAA	7C	

**SURRY UNIT-1
STEAM GENERATOR "B"
1994 EDDY CURRENT EXAMINATION**

<u>ROW</u>	<u>COL</u>	<u>IND</u>	<u>LOC</u>	<u>COMMENTS</u>
5	66	SAA	TSH	
7	66	SAA	TSH	
13	66	SAA	TSH	
24	66	SAA	4H	
4	67	16	4C	
7	67	MAA	4C	
14	67	16	2C	
21	67	10	6C	
39	67	SAA	2C	
7	68	SAA	TSH	
26	68	SAA	1C	
26	69	12	6H	
36	69	SAA	4C	
16	70	15	2C	
29	70	12	AV4	
32	70	12	TSH	
40	70	10	AV3	
8	71	SCA	TSH	
2	72	SAA	4C	
11	72	SAA	TSC	
13	74	16	2H	
13	74	SAA	1C	
33	75	19	AV4	
3	79	16	2C	

**SURRY UNIT-1
STEAM GENERATOR "B"
1994 EDDY CURRENT EXAMINATION**

<u>ROW</u>	<u>COL</u>	<u>IND</u>	<u>LOC</u>	<u>COMMENTS</u>
31	79	10	2H	
27	80	12	6H	
13	83	18	2C	
17	83	MAA	6C	
25	83	SAA	TSH	
28	83	SAA	7H	
4	85	16	5C	
19	87	16	4C	
2	88	14	2C	
4	89	SAA	2C	
15	89	17	TSC	
13	90	MAA	6C	
13	90	SAA	2C	
18	90	19	TSC	
18	90	SAA	6C	

ATTACHMENT 2

**GLOSSARY OF TERMS
SURRY POWER STATION
ANNUAL STEAM GENERATOR
INSERVICE INSPECTION REPORT**

VIRGINIA ELECTRIC AND POWER COMPANY

VIRGINIA ELECTRIC AND POWER COMPANY
STEAM GENERATOR EDDY CURRENT TUBE INSPECTION

GLOSSARY OF TERMS

1. ROW, COL - COLUMN - tube identifier numbers - an X-Y coordinate system.
2. IND - INDICATION - Character codes and numerics that represent the analysis results of the data for that tube, e.g., SAA, 25%, etc.
3. LOCN - LOCATION - The location in the tube of the INDICATION called.
4. MAA - MULTIPLE AXIAL ANOMALY - Describes multiple axially oriented anomalies.
5. 55 - A number in the indication column shows the % through wall depth of the indication.
6. SAA - Describes a single axially oriented anomaly.
7. SCA - Describes a single circumferentially oriented anomaly
8. TEH - Tube End Hot leg.
9. TEC - Tube End Cold leg.
10. TSH - Top of Tubesheet Hot leg.
11. TSC - Top of Tubesheet Cold leg.
12. BPH, BPC - BAFFLE PLATE HOT AND COLD
13. #C, #H - (# = number) of Support Plate Hot or Cold leg. e.g., 3H, 6H, 7C.
14. AV1, AV2, AV3, AV4 - Anti-Vibration Bars 1 through 4.

Note: Where no comment appears in the remarks column the tube is still in service.

ATTACHMENT 3

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNIT 1
TUBESHEET MAPS**

VIRGINIA ELECTRIC AND POWER COMPANY

SG - B TUBES PLUGGED - HOT & COLD LEGS

× : 4 TUBE PLUGGED - HOT & COLD LEGS

□ : 4 EXISTING PLUGGED TUBE

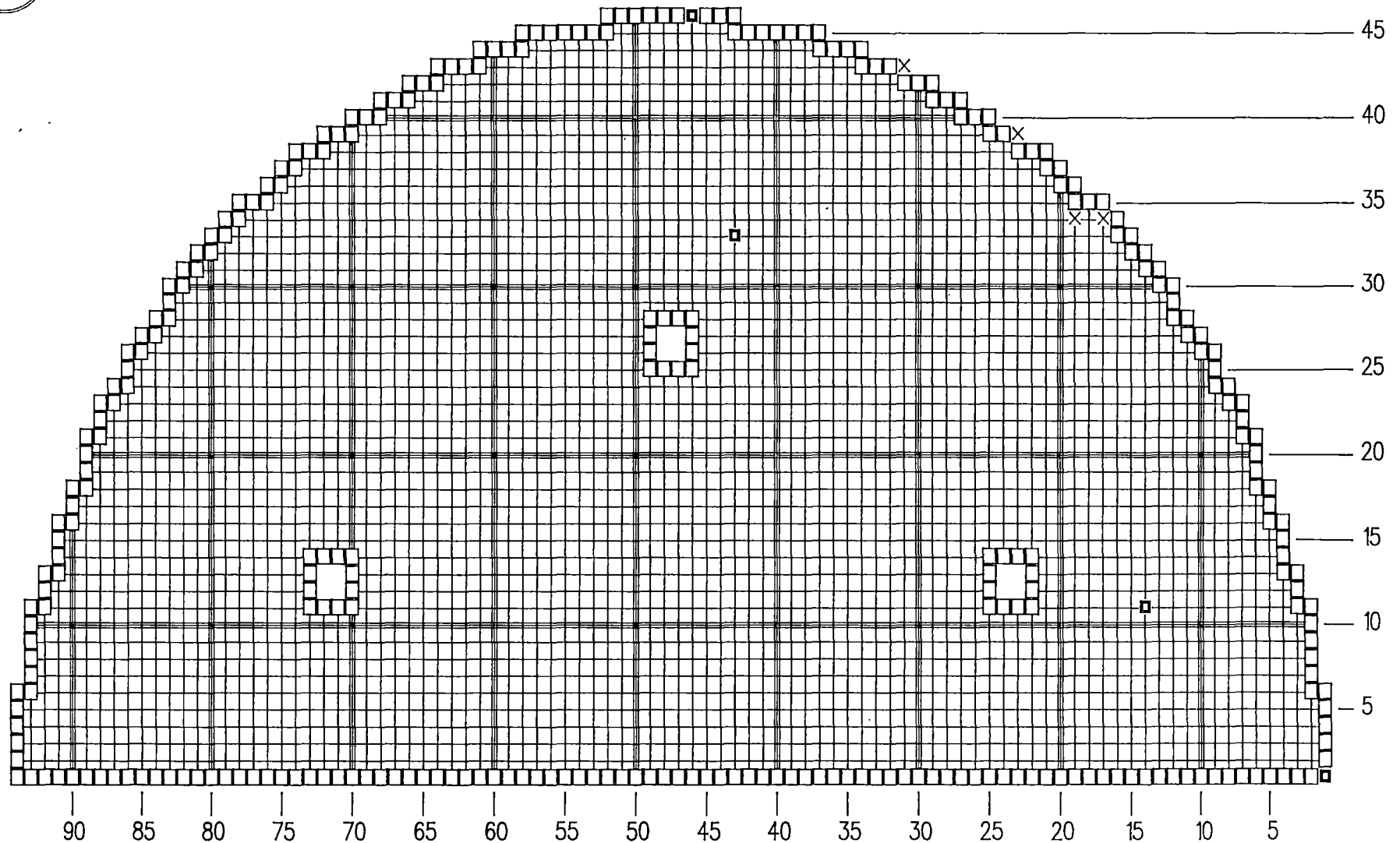
Surry Unit 1

VPA-B SERIES 51F

02-08-1994

10:15 HRS.

SUPERTUBIN



SG - B BOBBIN TESTED EXTENTS - HOT LEG

Surry Unit 1

VPA-B SERIES 51F

02-08-1994

08:01 HRS.

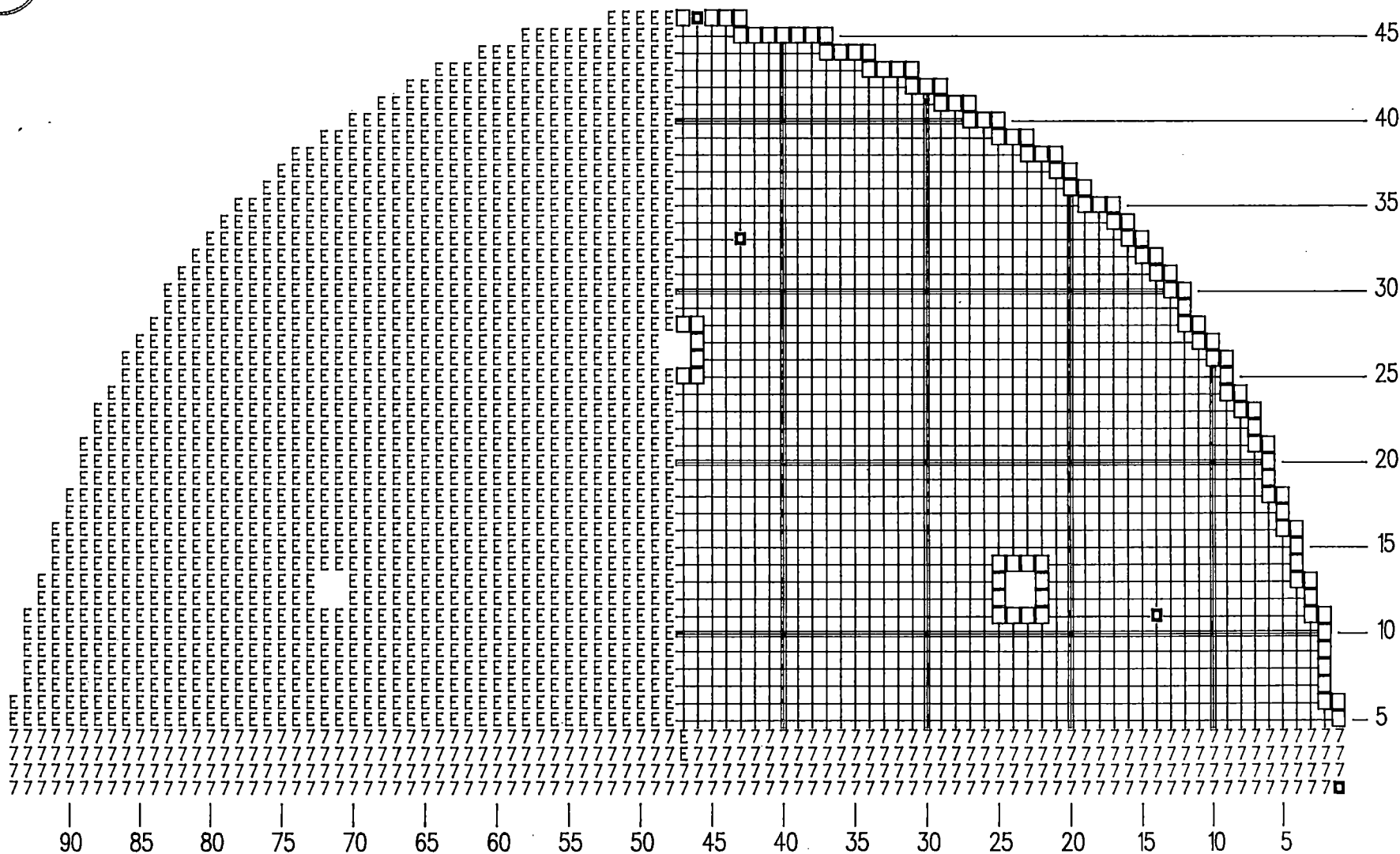
SUPERTUBIN

E : 1485 TUBE TESTED TEC THRU TEH

7 : 287 TUBE TESTED 7H THRU TEH

7 : 86 TUBE TESTED 7C THRU TEH

□ : 4 PLUGGED TUBE



SG - B BOBBIN TESTED EXTENTS - COLD LEG

Surry Unit 1

VPA-B SERIES 51F

02-08-1994

08:18 HRS.

SUPERTUBIN

E : 1481 TUBE TESTED TEH THRU TEC

4 : 1 TUBE TESTED 4H THRU TEC

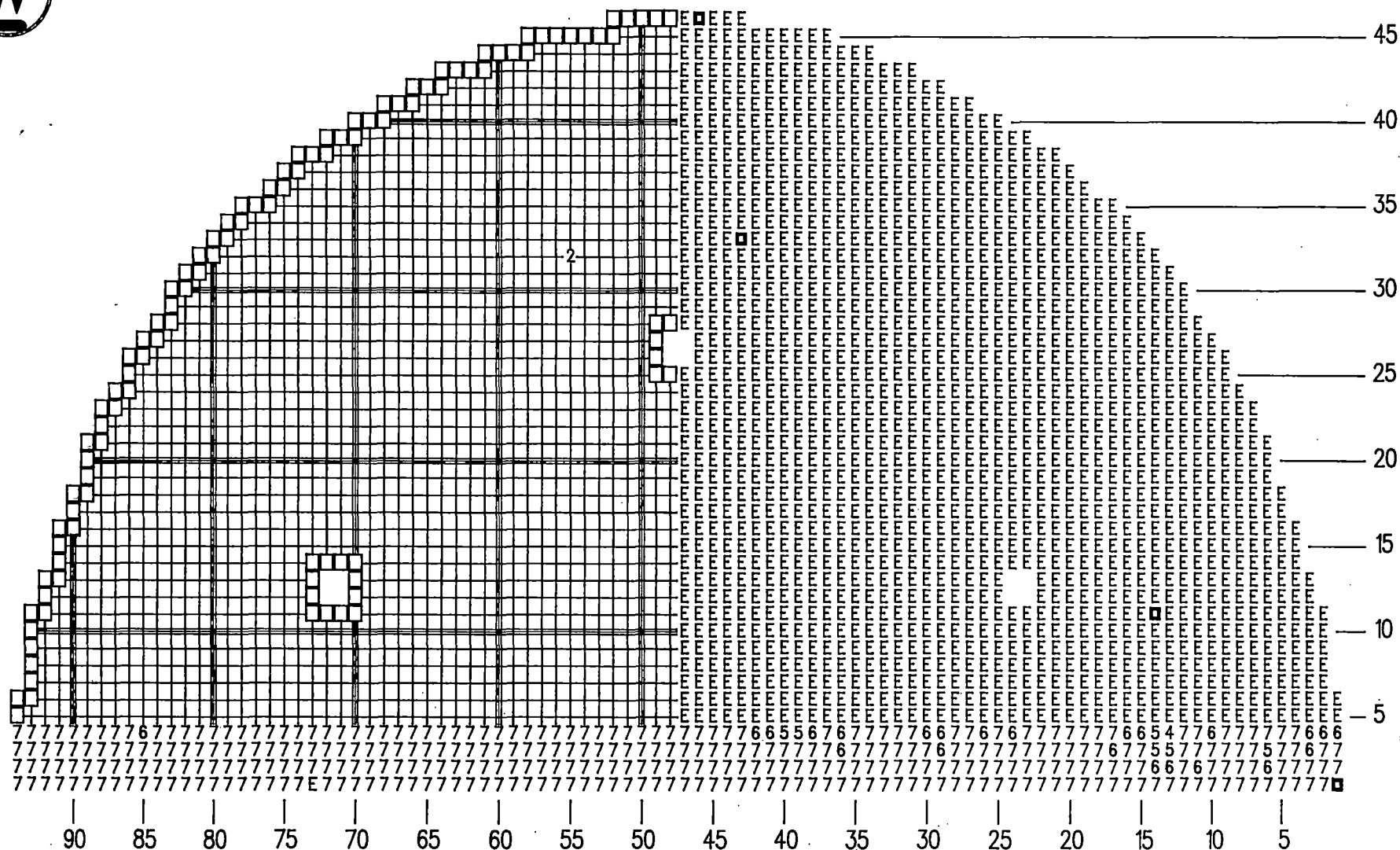
5 : 6 TUBE TESTED 5H THRU TEC

6 : 23 TUBE TESTED 6H THRU TEC

7 : 344 TUBE TESTED 7H THRU TEC

2 : 1 TUBE TESTED 2C THRU TEC

☐ : 4 PLUGGED TUBE



S/G - B TOP OF TUBESHEET RPC PROGRAM

PLAN 4
Surry Unit 1

VPA-B SERIES 51F

02-08-1994

01:10 HRS.

SUPERTUBIN

× : 301 TEST TSH +/- 2 INCHES

□ : 4 PLUGGED TUBE

