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APPENDIX A

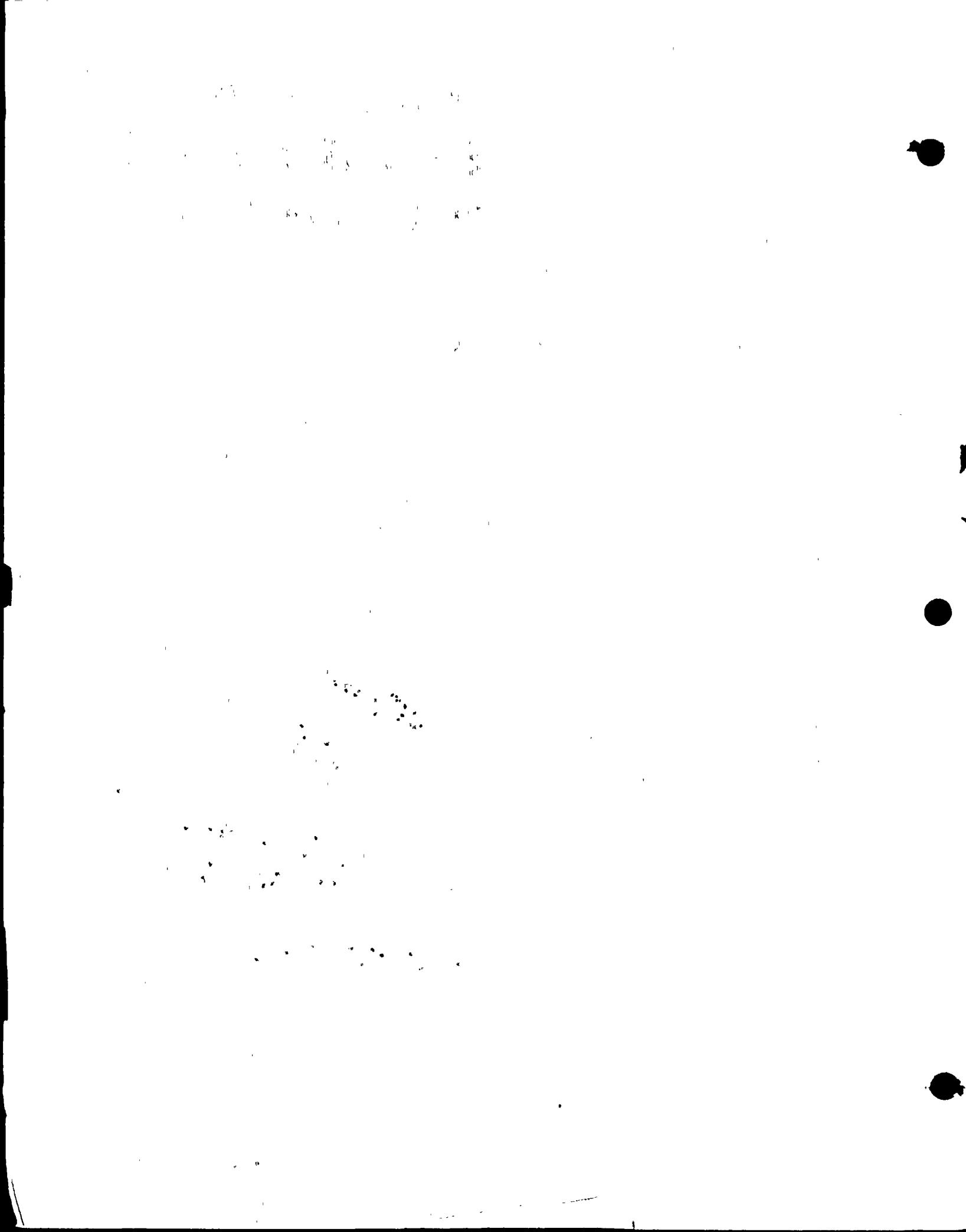
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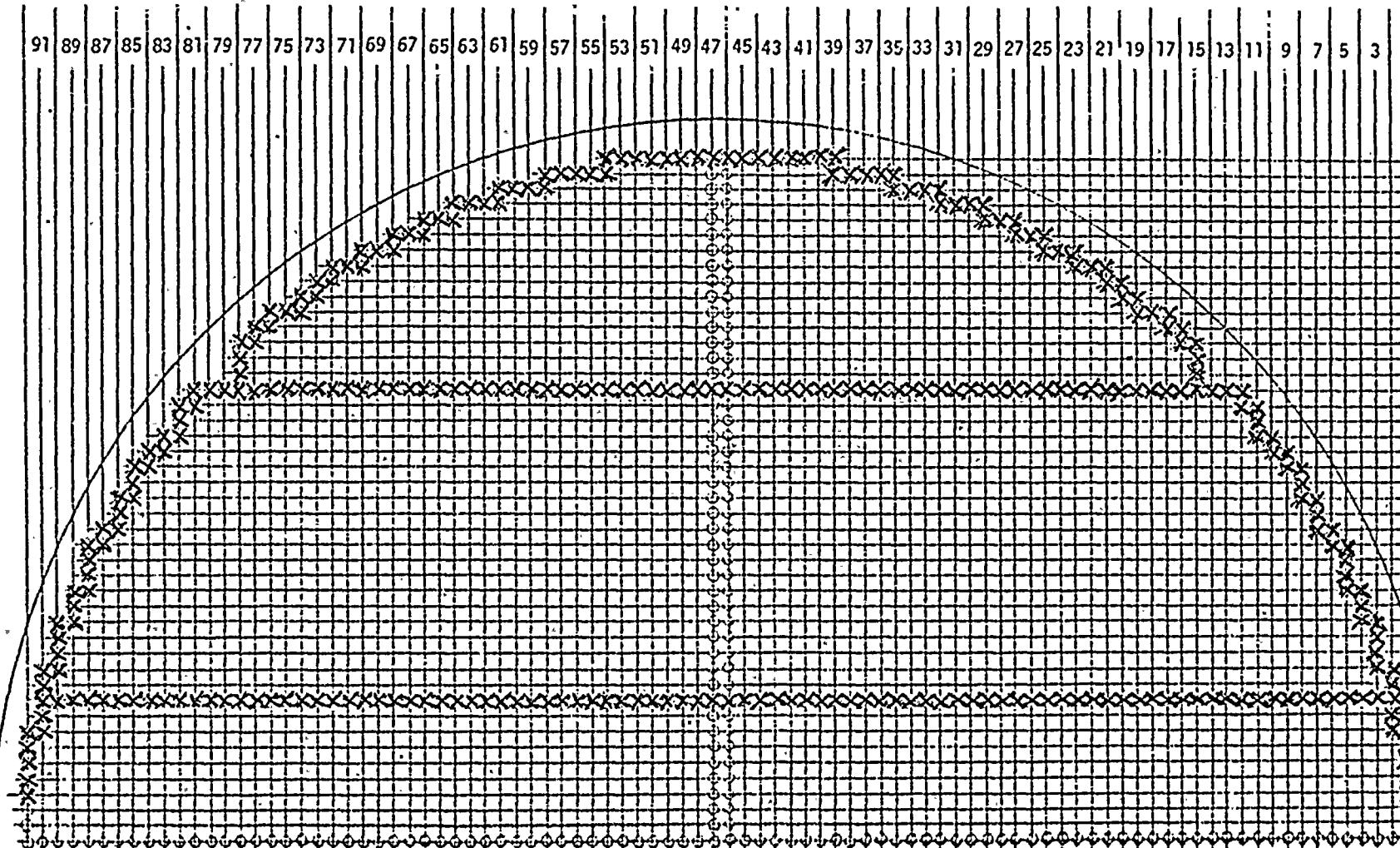
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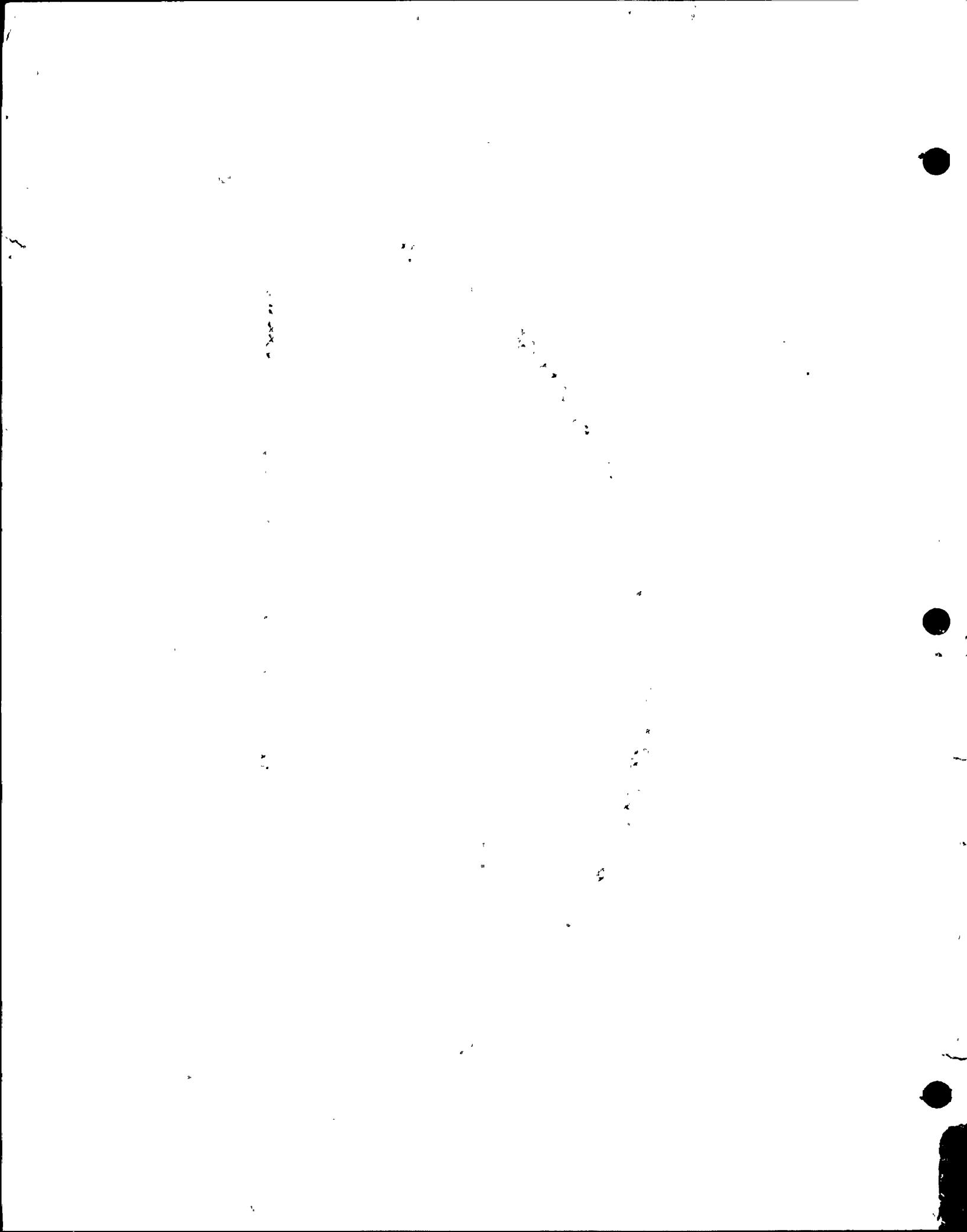
COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



FPL STEAM GENERATOR

APPENDIX A



FPL "A" S/G

Tubes inspected from 1st support through the Tubesheet area.

COL	ROW	DEFECT	ORIGIN	LOCATION
3	13	Dent		36" above TS
11	6	Dent		24" above TS
17	5	Dent		23" above TS
17	27	Dent		6" above TS
17	28	<20%	ID	40" above TS
26	24	Dent		30" above TS
26	35	Dent		24" above TS
28	22	Dent		18" above TS
30	33	Dent		24" above TS
32	34	Dent		33" above TS
34	14	Dent		24" above TS
35	9	Dent		25" above TS
37	42	Dent		3" above TS
		Dent		5" above TS
41	20	Dent		38" above TS
44	12	Dent		30" above TS
45	15	Dent		17" above TS
46	5	Dent		36" above TS
46	20	Dent		24" above TS
49	19	Dent		22" above TS
50	10	Dent		24" above TS
51	36	Dent		20" above TS
54	2	Dent		10" above TS
56	36	Dent		38" above TS
56	38	Dent		4" above TS
57	15	<<20%	ID	21" above TS
58	29	Dent		36" above TS
59	24	Dent		27" above TS
61	7	Dent		17" above TS
62	34	Dent		32" above TS
65	25	Dent		17" above TS
		Dent		24" above TS
66	4	Dent		22" above TS
67	1	Dent		40" above TS
67	4	Dent		24" above TS
68	22	Dent		16" above TS
69	8	Dent		12" above TS
69	15	Dent		30" above TS
72	4	Dent		24" above TS
72	22	Dent		15" above TS
73	31	Dent		24" above TS

FPL "A" S/G

COL	ROW	DEFECT	ORIGIN	LOCATION
74	15	Dent		24" above TS
78	17	Dent		30" above TS
84	5	Dent		24" above TS
86	10	Dent		24" above TS
87	17	Dent		24" above TS
91	4	Dent.		15" above TS

Tubes tested through the U-Bend

COL	ROW	DEFECT	ID	LOCATION
3	10	Dent		At #2 Support
4	15	Dent		At #2 Support
7	23	Dent		At #2 Anti-vibration bar
16	34	Dent		Between #3 & #4 Anti-Vibration bar
		Dent		30" above #4 Support
17	35	<<20%		Between #2 & #3 Anti-vibration bar
31	42	Dent		At #6 Support
37	44	Dent.		Between #3 & #4 anti-vibration bar
39	44	Dent		Between #3 & #4 anti-vibration bar
39	45	Dent		24" above #3
40	45	Dent		Between #3 & #4 Anti-vibration bar
42	45	Dent		24" above #5
45	45	Dent		Between #3 & #4 Anti-vibration bar
46	45	Dent		24" above #4
		Dent		24" above #5
52	45	Dent		24" above #5
54	45	Dent		Between #4 anti-vibration bar & #6 Coldleg
		Dent		24" above #5
91	12	Dent		At #1 anti-vibration bar

FPL "B" S/G

Tubes tested from 1st support through the Tubcsheet area

COL	ROW	DEFECT	ORIGIN	LOCATION
1	2	20%		8" above TS
2	11	Dent		2" above TS
7	23	Dent		8" above TS
9	26	Dent		25" above TS
		Dent	ID	10" above TS
10	5	Dent		16" above TS
11	4	Dent		21" above TS
11	9	Dent		10" above TS
11	26	Dent		21" above TS
13	4	Dent		30" above TS
13	21	Dent		15" above TS
16	22	Dent		10" above #1 Support
16	27	Dent		30" above TS
		Dent		3" above TS
17	20	Dent		8" above TS
21	16	Dent		16" above TS
32	21	Dcnt		30" above TS
35	30	Dent		24" above TS
		Dent		6" above TS
35	44	Dent		24" above TS
36	41	Dent		30" above TS
		Dent		5" above TS
39	40	Dent		12" above TS
42	8	Dent		12" above TS
43	7	<<20%		12" above TS
45	10	Dent		28" above TS
46	11	Dent		24" above TS
46	23	Dent		8" above TS
49	12	Dent		12" above TS
52	3	Dent		24" above TS
52	25	Dent		7" above TS
52	31	Dent		10" above TS
54	32	<<20%		16" above TS
61	5	<20%	ID	6" above TS
64	18	Dent		20" above TS
66	19	<<20%	ID	37" above TS
71	35	<<20%	ID	40" above TS
75	25	Dent		36" above TS
76	27	Dent		4" above TS
77	10	Dent		8" above TS
78	31	Dent		30" above TS
78	32	Dent		40" above TS

FPL "B" S/G

COL	ROW	DEFECT	ORIGIN	LOCATION
84	6	Dent		30" above TS
85	24	Dent		14" above TS
91	9	Dent		20" above TS

Tubes tested through the U-Bend

2	11	Dent		24" above #4
3	12	Dent		30" above #4
4	17	Dent		30" above #4
		Dent		24" above #2
5	10	Dent		30" above #2
5	17	Dent		32" above #4
7	23	Dent		Between #1 & #2 anti-vibration bar
9	26	Dent		26" above #4
10	26	Dent		26" above #4
11	27	Dent		24" above #5
11	28	Dent		30" above #5
		Dent		24" above #2
12	30	Dent		28" above #4
		Dent		41" above #4
15	31	Dent		At #6
15	32	Dent		At #6
17	30	Dent		At #6
		Dent		24" above #2
17	35	Dent		40" above #5
		Dent		40" above #4
		Dent		36" above #2
18	30	Dent		At #6
		Dent		24" above #2
19	30	Dent		At #6
20	30	Dent		At #6
20	36	Dent		At #4 Anti-vibration bar
20	37	Dent		At #4 anti-vibration bar
21	30	Dent		At #6
21	37	Dent		At #4 anti-vibration bar
21	38	Dent		At #1 anti-vibration bar
22	30	Dent		At #6
23	30	Dent		At #6
23	39	Dent		At #3 anti-vibration bar
24	30	Dent		At #6
25	30	Dent		At #6

FPL "B" S/G

COL	ROW	DEFECT	ORIGIN	LOCATION
25	39	Dent		At #4 anti-vibration bar
25	40	Dent		At #4 anti-vibration bar
26	30	Dent		At #6
27	30	Dent		At #6
28	30	Dent		At #6
29	30	Dent		At #6
29	41	Dent		At #6
29	42	Dent		Between #2 & #3 antivibration bar
30	30	Dent		At #6
31	30	Dent		At #6
32	30	Dent		At #6
33	30	Dent		At #6
34	30	Dent		At #6
35	10	Dent		24" above #4
35	30	Dent		At #6
36	30	Dent		At #6
37	30	Dent		At #6
38	10	Dent		24" above #4
40	30	Dent		24" above #4
71	30	Dent		24" above #5
72	30	Dent		24" above #5
72	38	Dent		At #1 anti-vibration bar
76	10	Dent		24" above #5
82	10	Dent		16" above #2
90	13	<<20%	ID	40" above #2

FPL "C" S/G

Tubes tested from 1st support through the tubesheet area

COL	ROW	DEFECT	ORIGIN	LOCATION
4	12	Dent		15" above TS
14	4	Dent		24" above TS
16	23	35%	ID	15" above TS
18	7	Dent		9" above TS
18	25	Dent		2" above TS
19	6	Dent		40" above TS
		Dent		20" above TS
25	30	Dent		20" above TS
36	33	Dent		4" above TS
39	42	Dent		38" above TS
40	42	Dent		32" above TS
41	42	Dent		35" above TS
43	35	Dent		40" above TS
44	11	Dent		40" above TS
46	9	Dent		10" above TS
50	10	Dent		22" above TS
54	1	Dent		18" above TS
		Dent		14" above TS
55	15	Dent		9" above TS
57	17	Dent		26" above TS
57	42	Dent		24" above TS
61	22	Dent		24" above TS
61	33	Dent		24" above TS
68	10	Dent		21" above TS
69	1	Dent		24" above TS
69	20	Dent		32" above TS
69	33	Dent		14" above TS
69	38	Dent		35" above TS
71	2	Dent		7" above TS
74	30	Dent		10" above TS
78	1	Dent		7" above TS
		Dent		12" above TS
79	22	Dent		14" above TS
80	16	Dent		18" above TS
		Dent		10" above TS
		Dent		6" above TS

FPL "C" S/G

Tubes tested through the U-Bend

COL	ROW	DEFECT	ORIGIN	LOCATION
15	31	Dent		24" above #2
23	39	Dent		At #4 anti-vibration bar
		Dent		At #2 anti-vibration bar
31	10	Dent		At #3 anti-vibration bar
32	10	Dent		At #3 anti-vibration bar
33	10	Dent		At #3 anti-vibration bar
34	10	Dent		At #3 anti-vibration bar
35	10	Dent		At #3 anti-vibration bar
40	10	Dent		At #4 anti-vibration bar
41	10	Dent		At #4 anti-vibration bar
42	10	Dent		At #4 anti-vibration bar
45	10	Dent		At #4 anti-vibration bar
45	30	<<20%	ID	35" above #4
42	10	Dent		At #4 anti-vibration bar
46	45	Dent		At #1 antivibration bar
59	43	Dent		At #2 anti-vibration bar
60	43	Dent		At #2 anti-vibration bar
62	42	Dents		Around #4 anti-vibration bar
		Dent		At #2 anti-vibration bar
72	38	Dent		At #2 anti-vibration bar
76	35	Dent		At #2 anti-vibration bar
78	33	Dent		At #3 anti-vibration bar
80	30	Dent		Between #3 & #4 anti-vibration bar
88	20	Dent		38" above #4

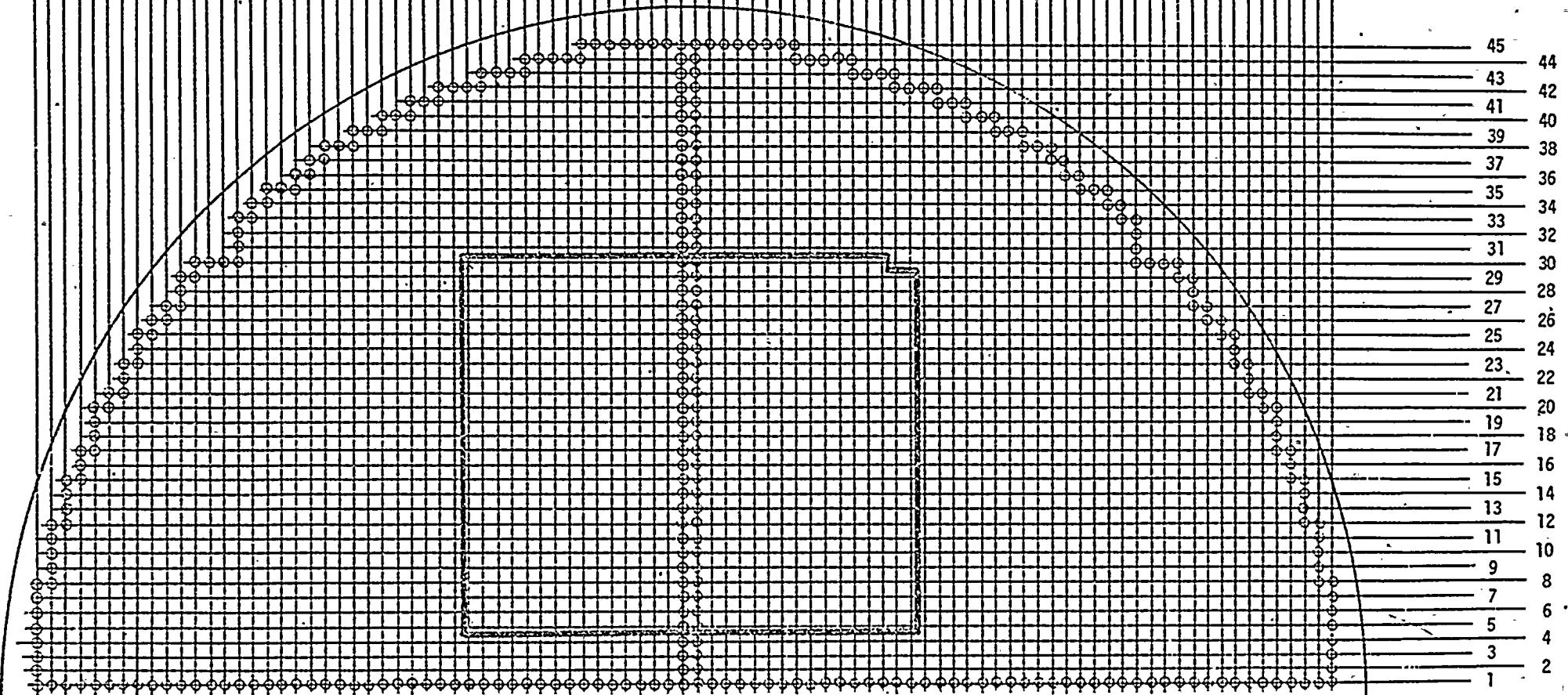
APPENDIX B

$$\begin{aligned} & \frac{\partial}{\partial t} \left(\frac{1}{2} \int_{\Omega} u^2 dx \right) + \int_{\Omega} u_t u dx = - \int_{\Omega} u_t u_{xx} dx \\ & \quad - \int_{\Omega} u_t u_{yy} dx - \int_{\Omega} u_t u_{xy} dx - \int_{\Omega} u_t u_{yx} dx \\ & \quad - \int_{\Omega} u_t u_{yyx} dx - \int_{\Omega} u_t u_{yxy} dx - \int_{\Omega} u_t u_{xyx} dx - \int_{\Omega} u_t u_{xxy} dx \end{aligned}$$

COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1



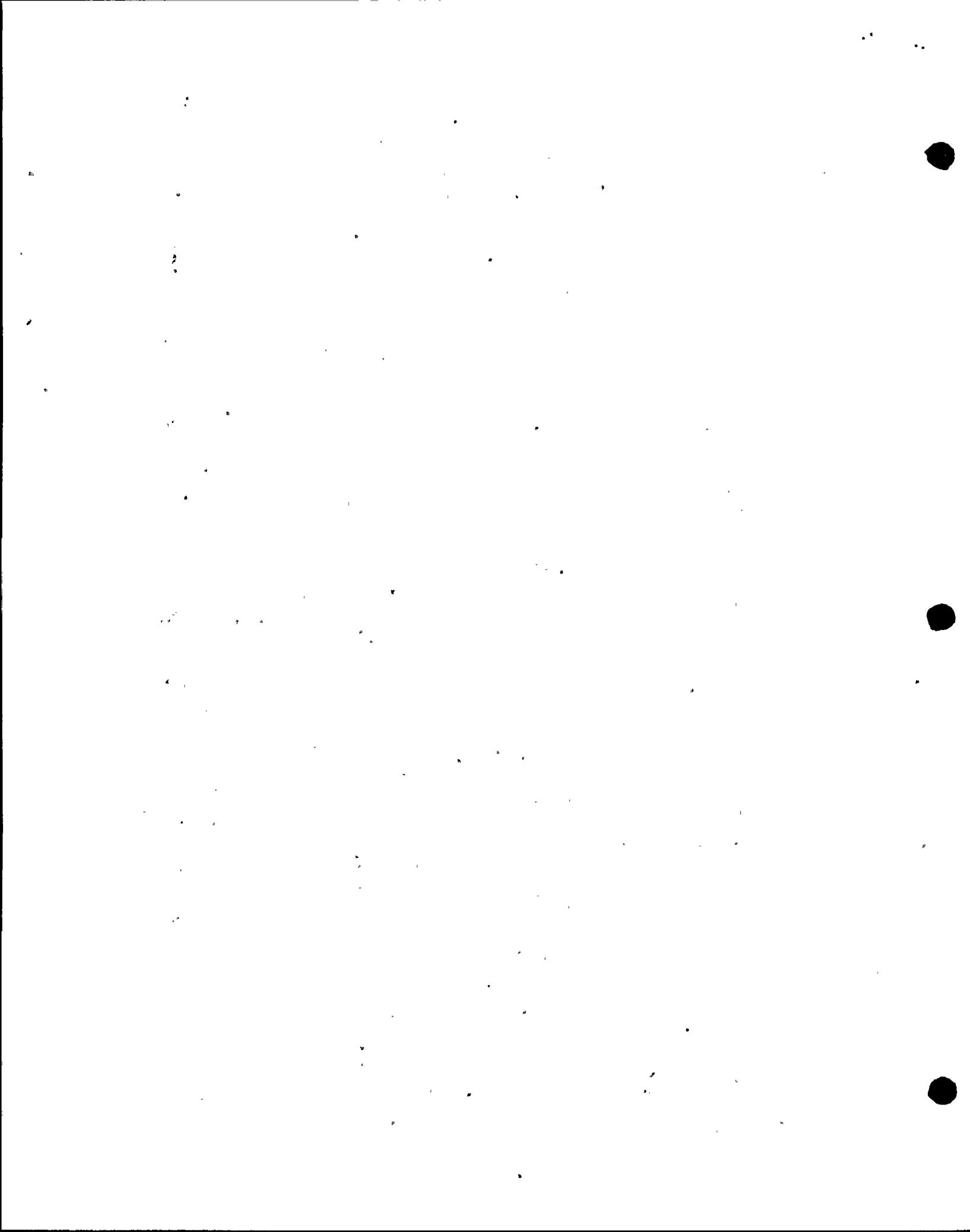
← MANWAY

TUBES EXAMINED AT 400 KHZ
TO FIRST SUPPORT

NOZZLE →

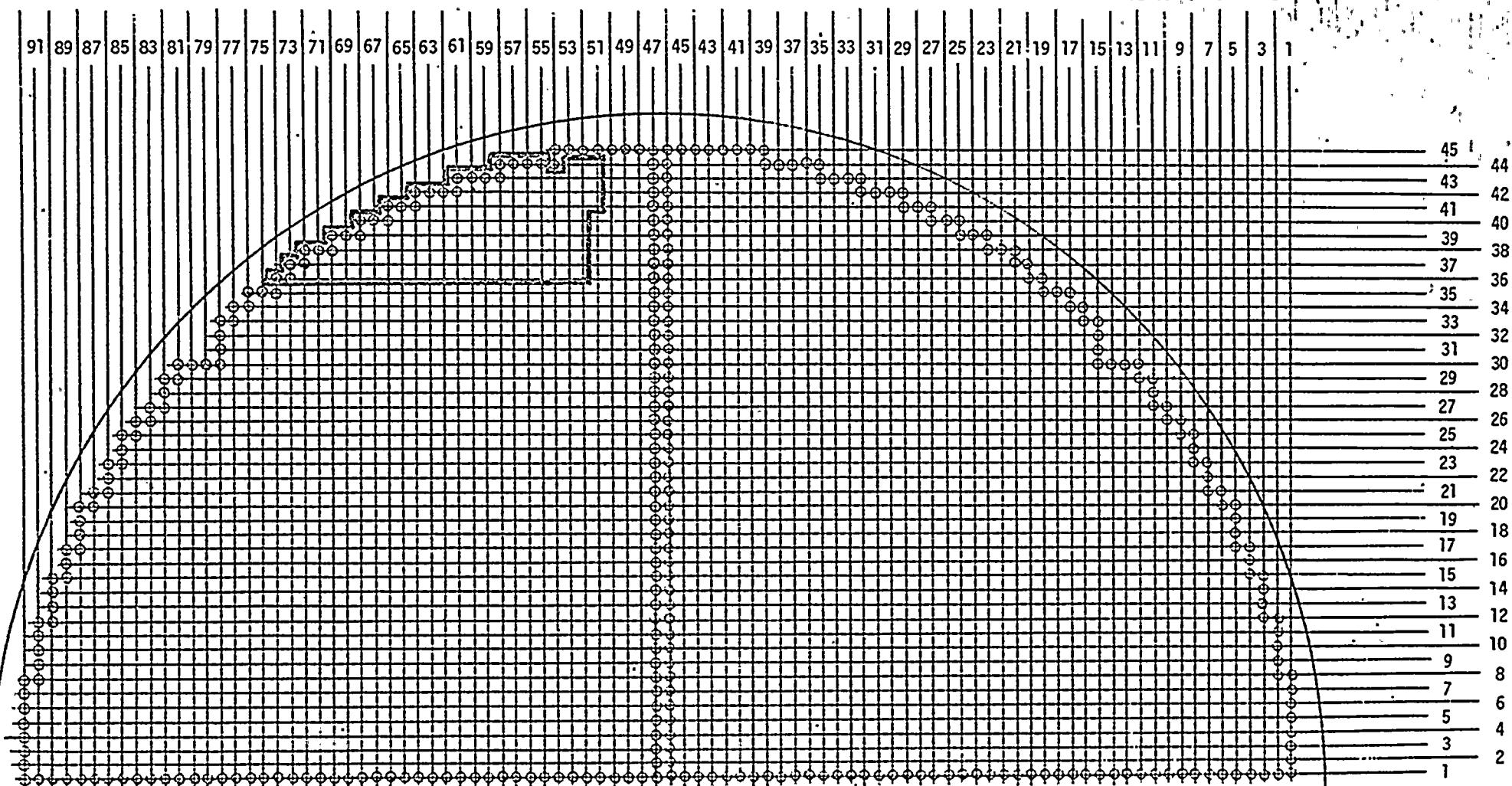
LOOP 'B' HOT LEG FPL STEAM GENERATOR

APPENDIX B



COLUMNS

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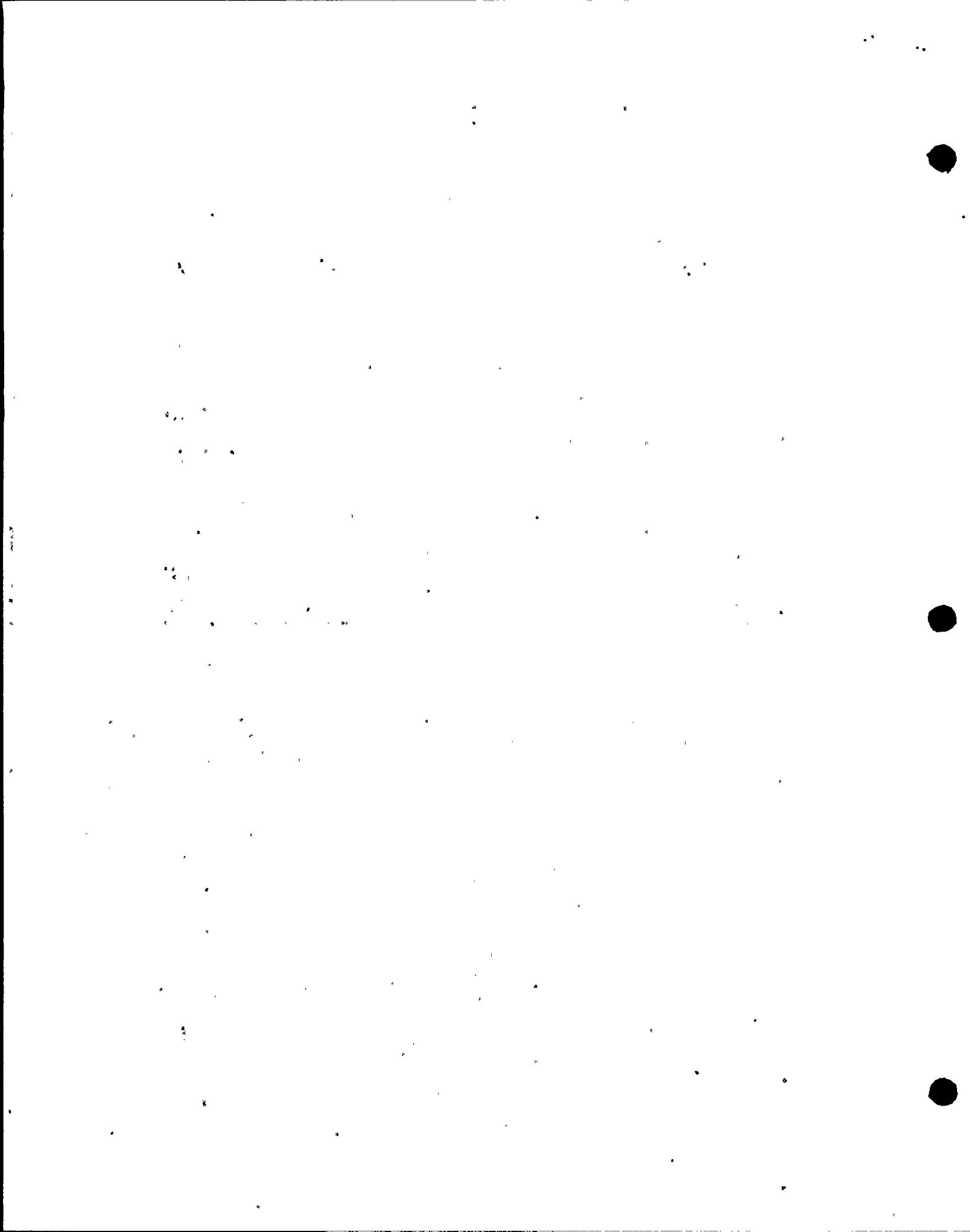
← MANWAY

TUBES EXAMINED AT 400 KHZ
AROUND U-BEND

NOZZLE →

LOOP 'B' HOT LEG FPL STEAM GENERATOR

APPENDIX B



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

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ROWS

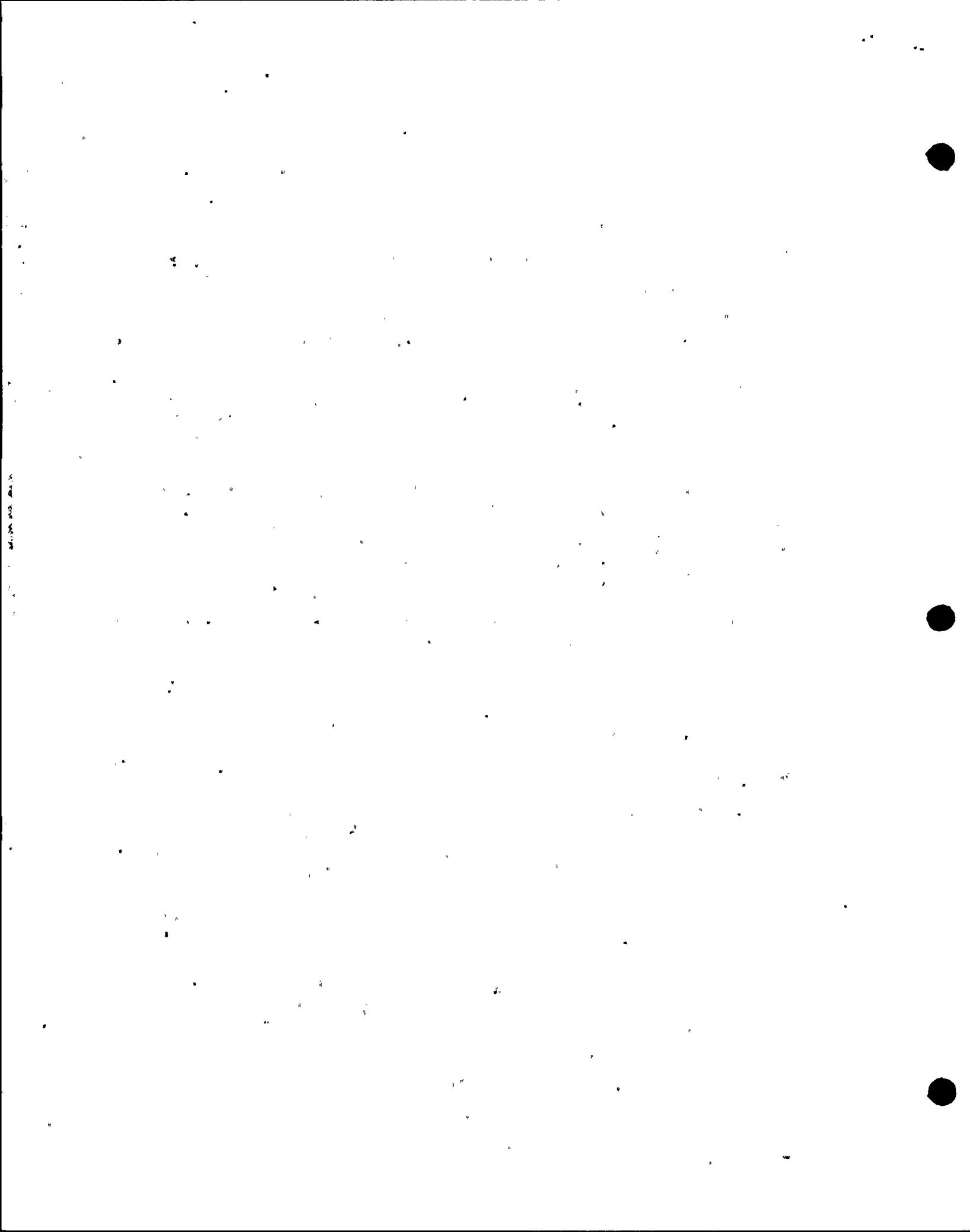
← MANWAY

TUBES EXAMINED AT 100 KHZ
TO FIRST SUPPORT

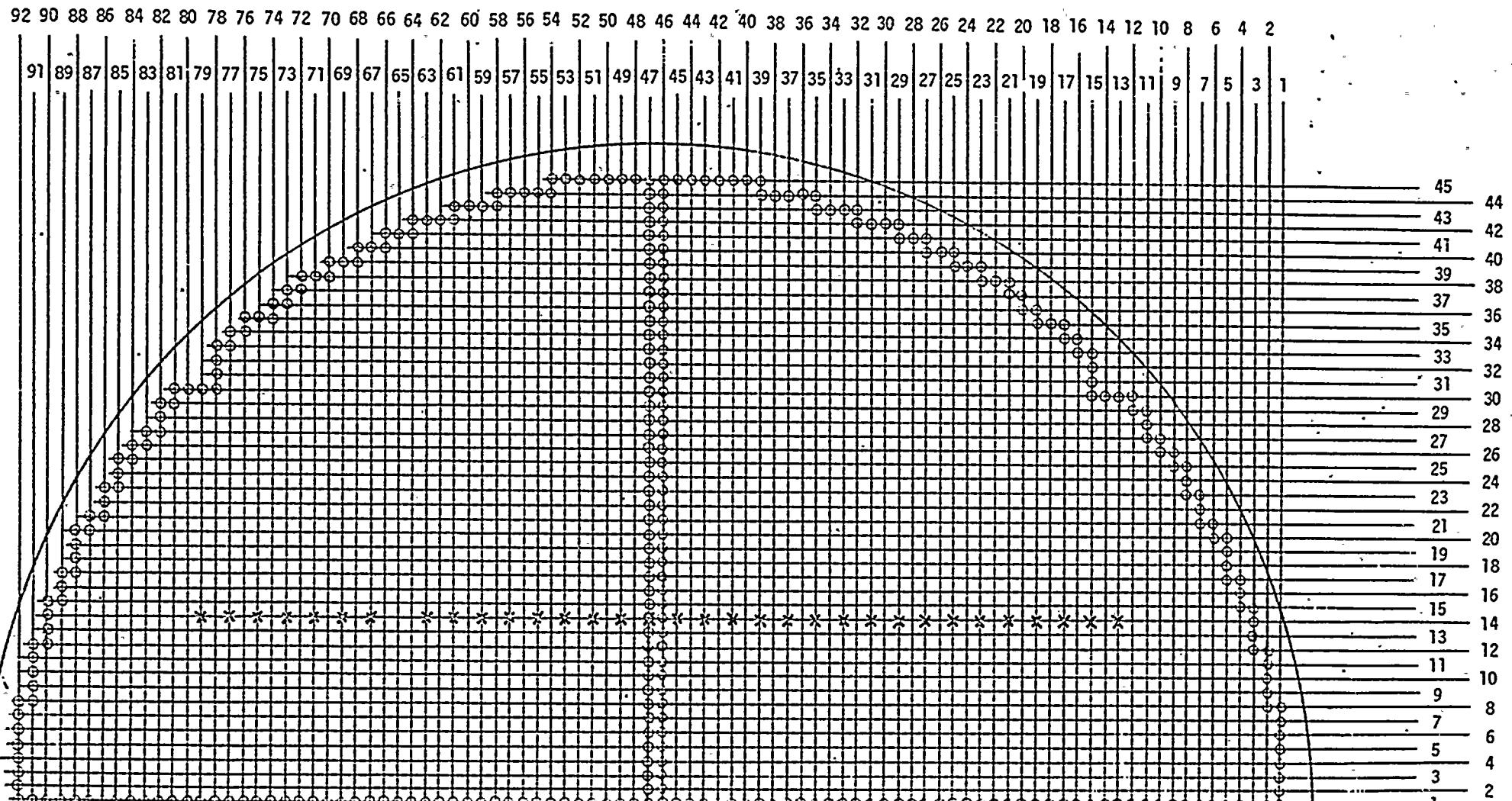
NOZZLE →

LOOB'S HOT LEG FPL STEAM GENERATOR

APPENDIX B



COLUMNS



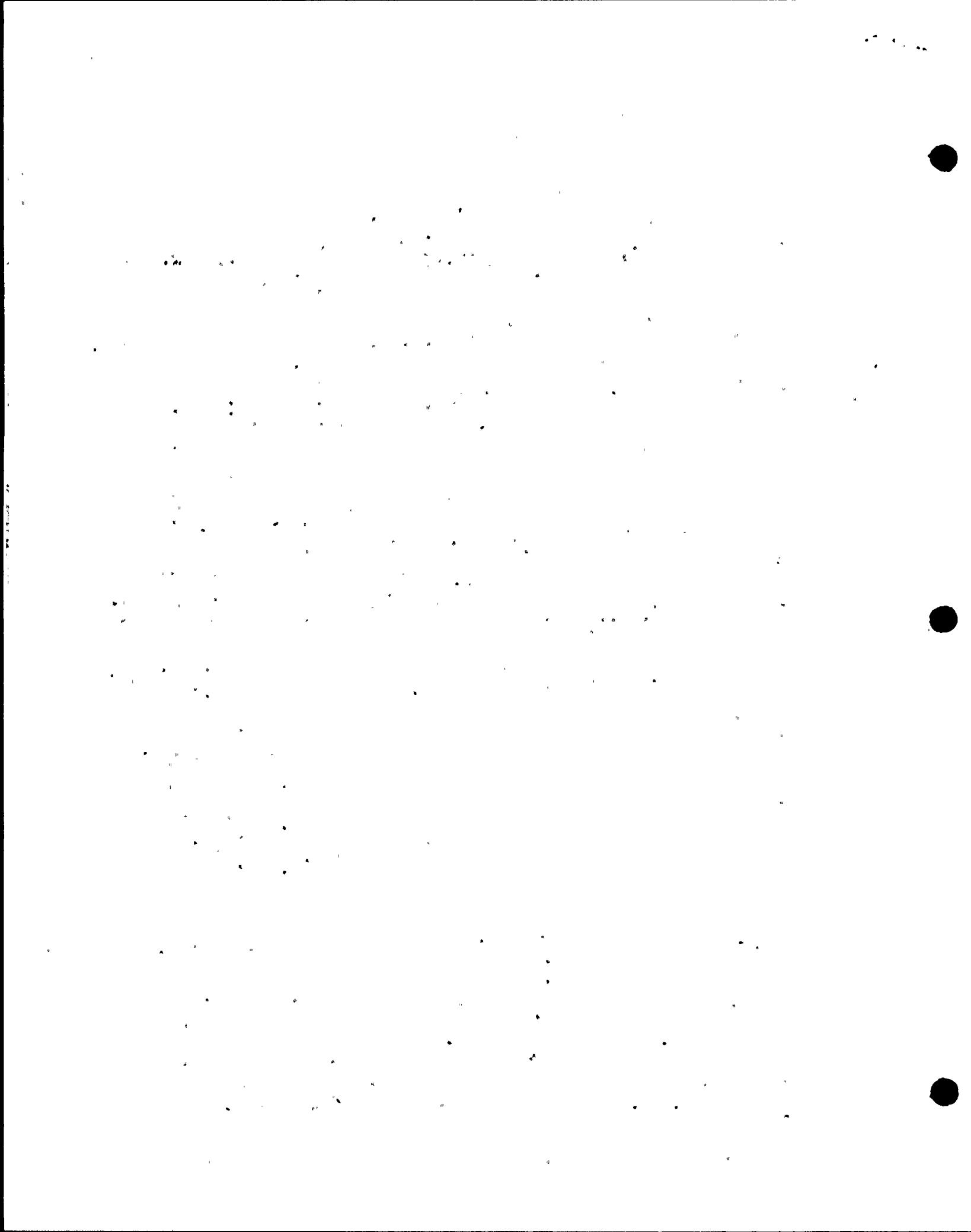
← MANWAY

TUBES EXAMINED AT 100 KHZ
AT TOP SUPPORT

NOZZLE →

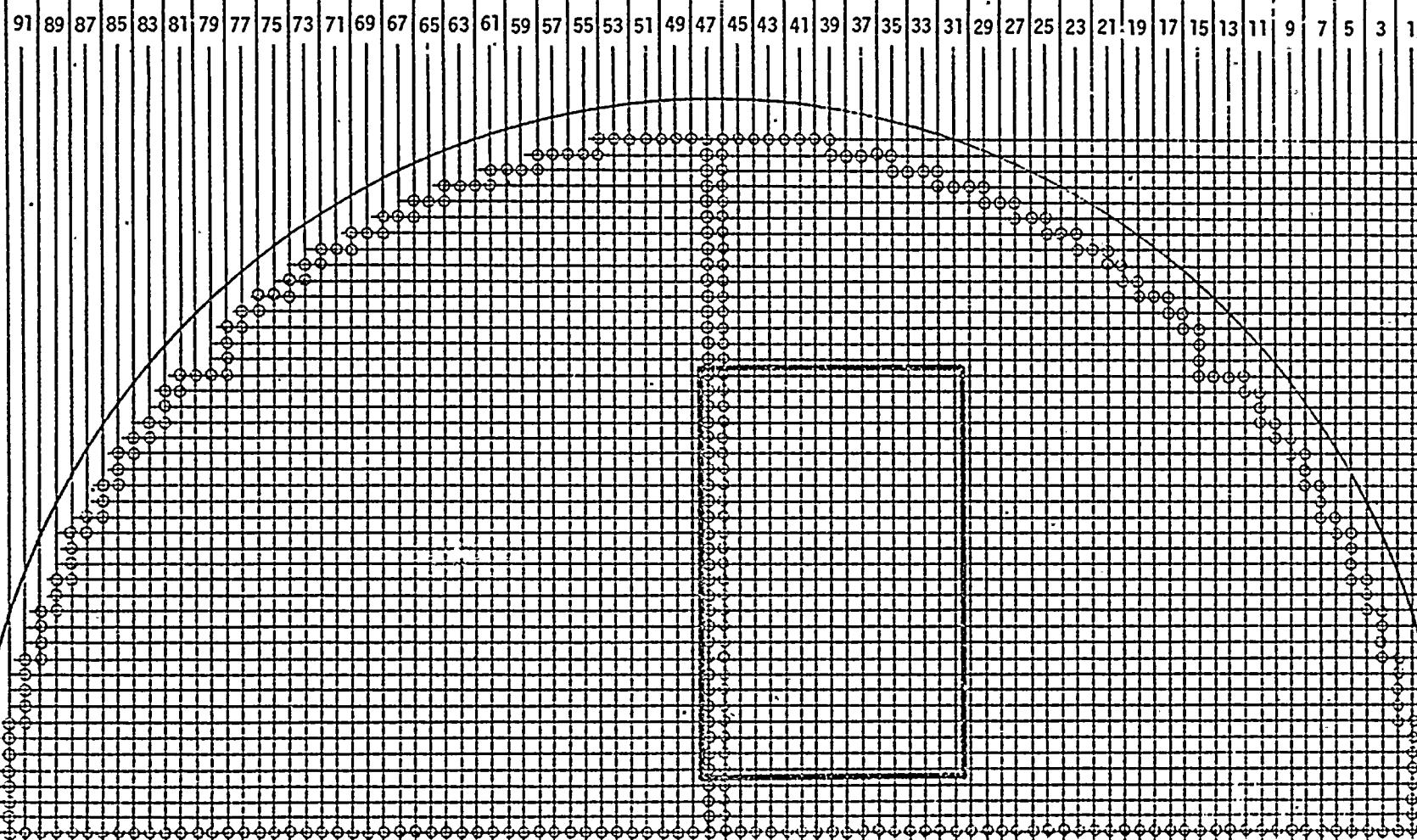
LOOP B' HOT LEG FPL STEAM GENERATOR

APPENDIX B



COLUMNS

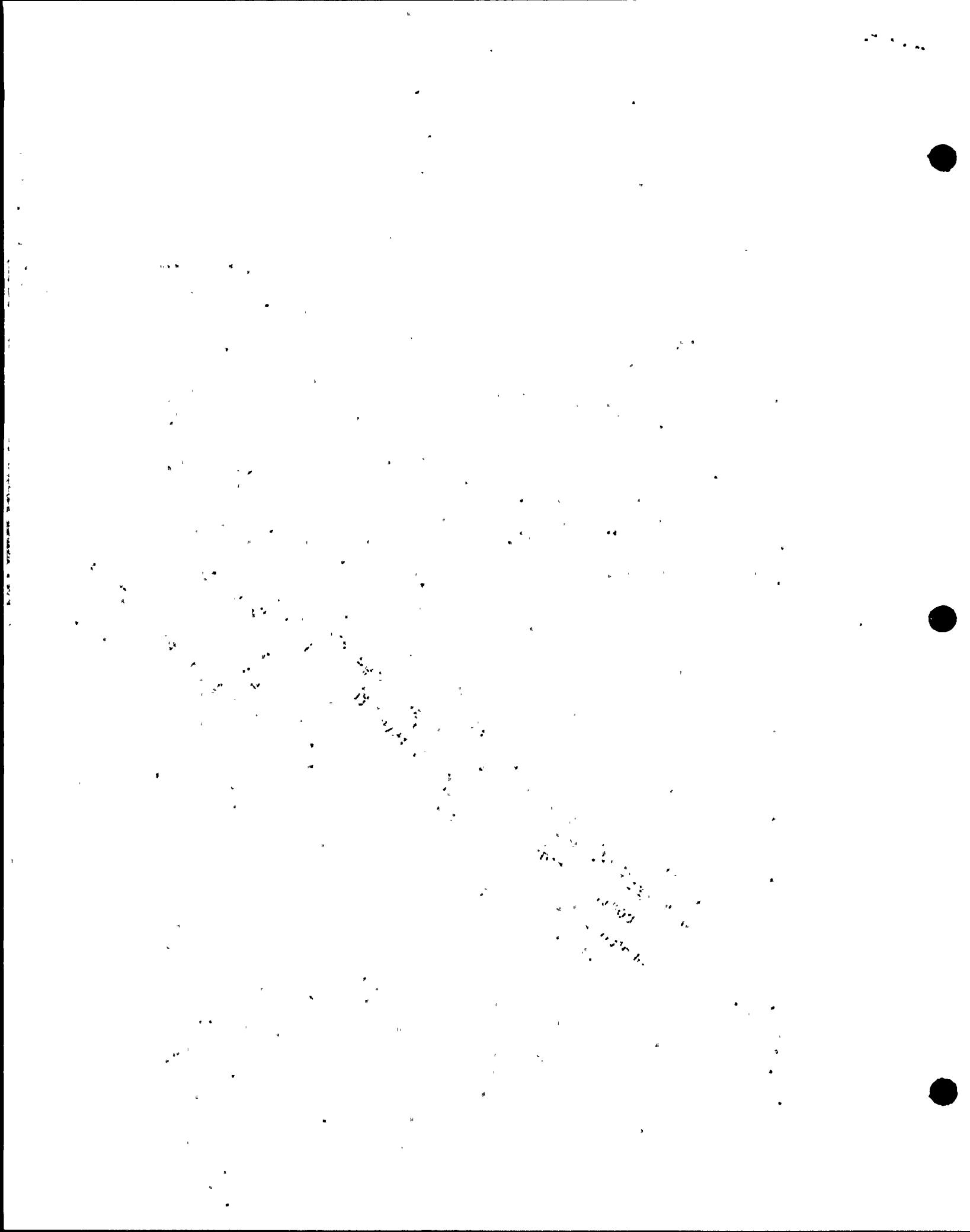
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TUBES EXAMINED AT 100 KHZ
TO FIRST SUPPORT

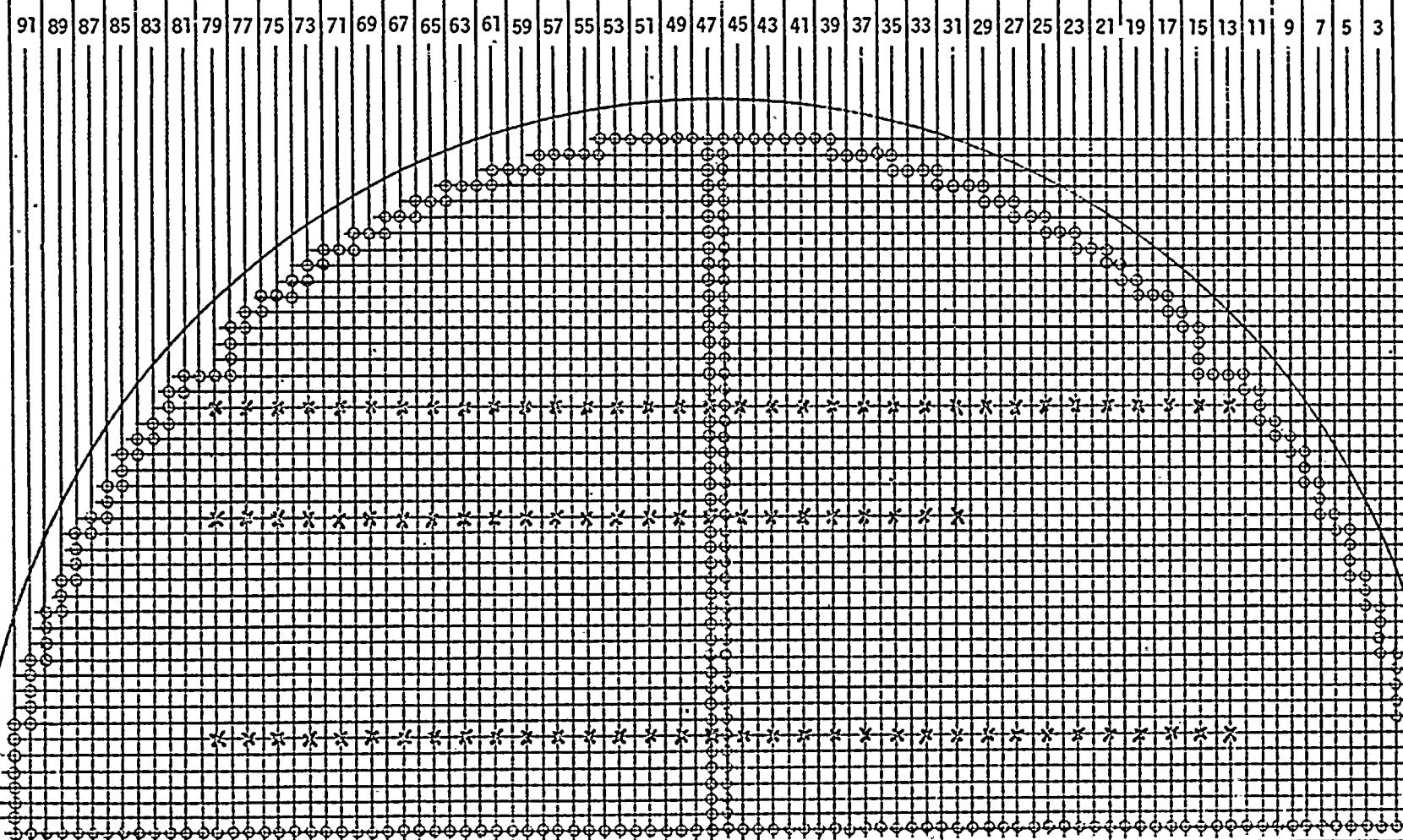
LOOP 'B' COLD LEG FPI STEAM GENERATOR

APPENDIX B



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



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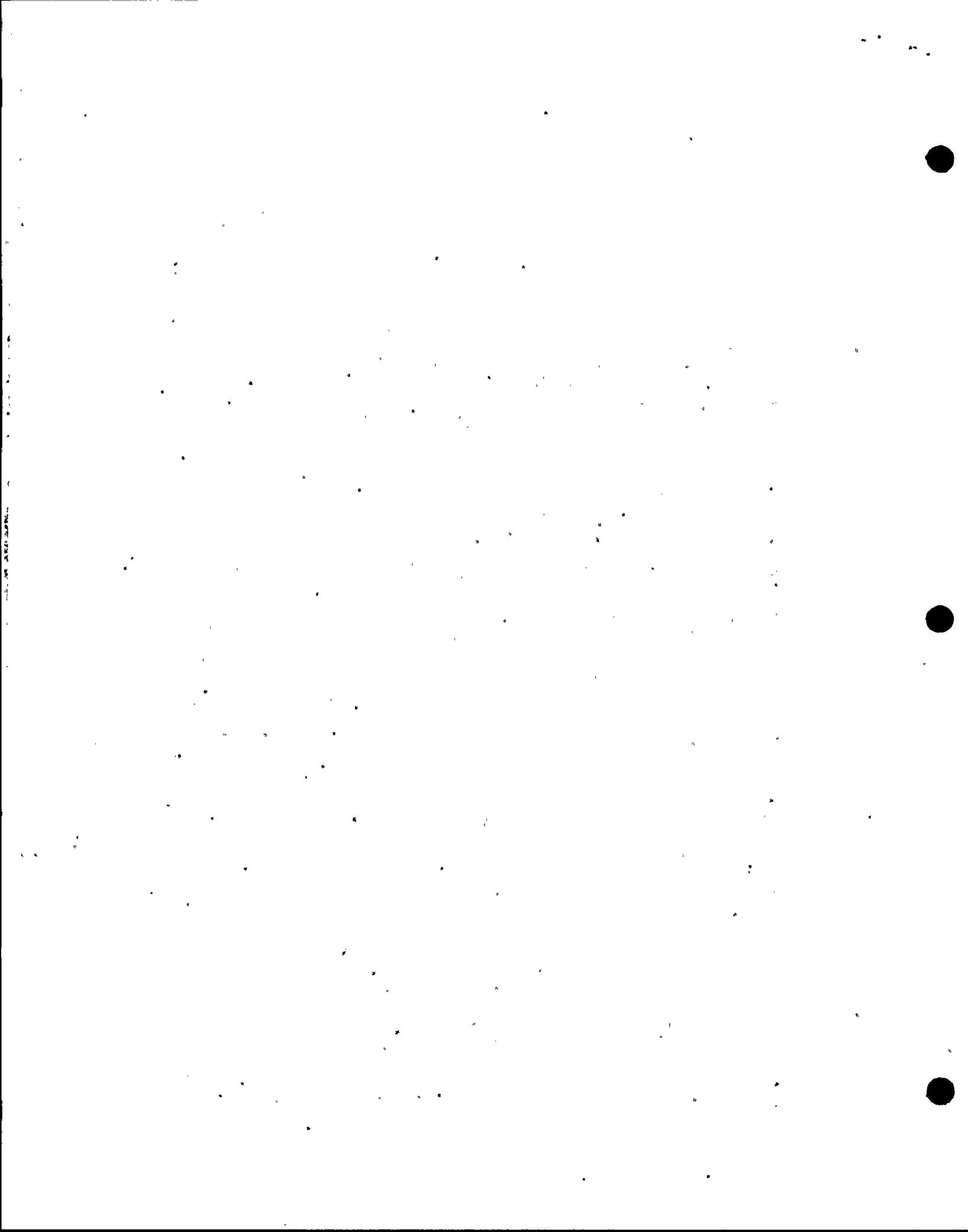
ROWS

← MANWAY

NOZZLE →

TUBES EXAMINED AT 25 KHZ
AT FIRST SUPPORT.
LOOP 'B' HOT LEG FPI. STEAM GENERATOR

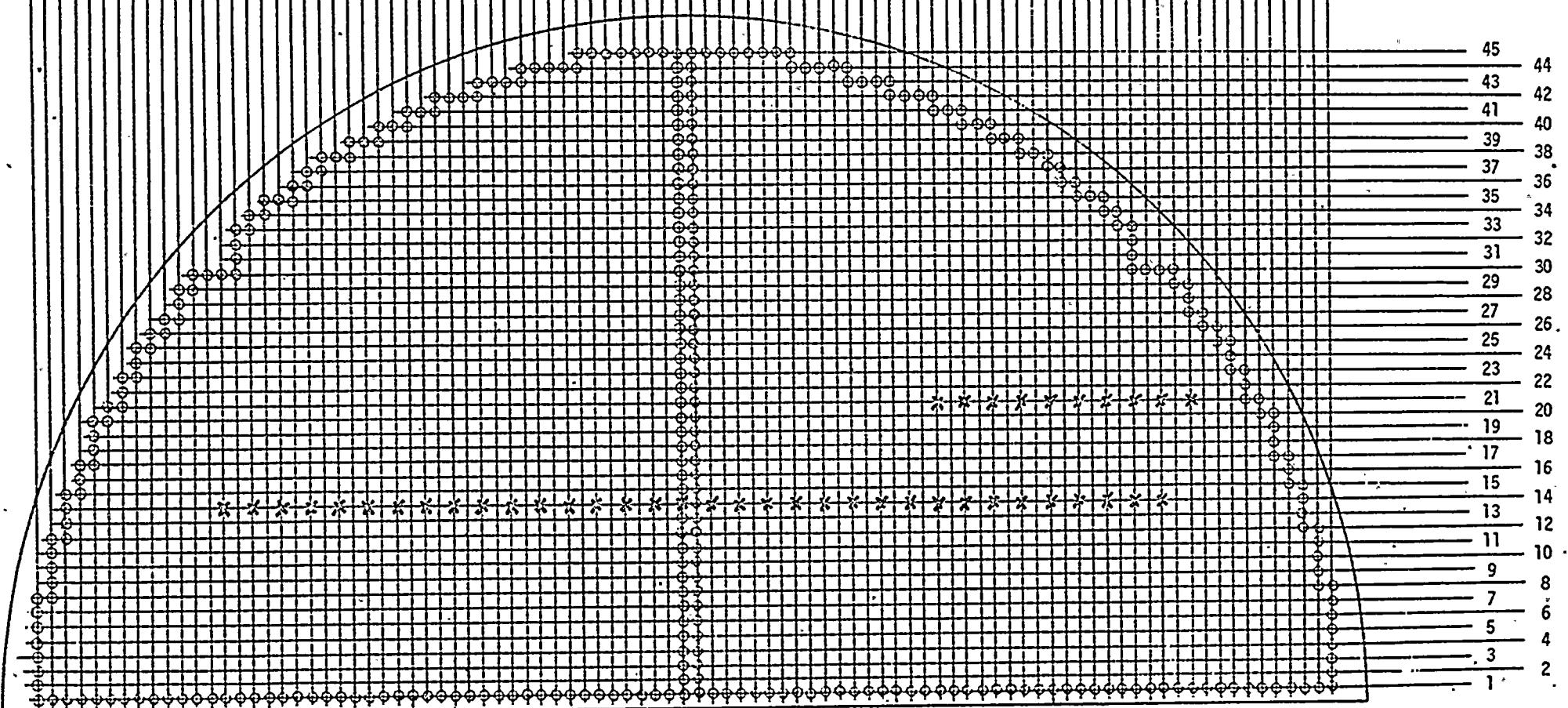
APPENDIX B



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

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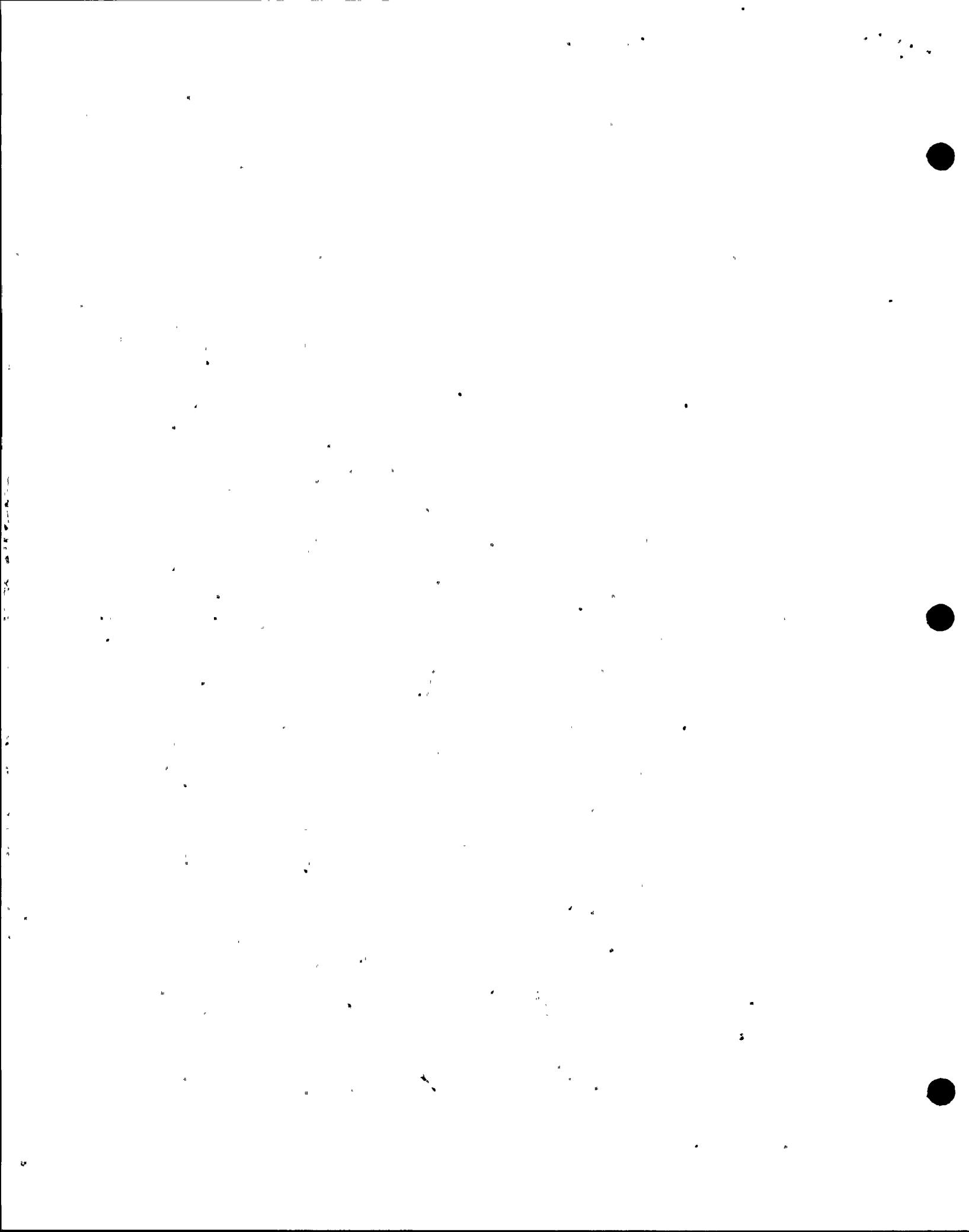
← MANWAY

TUBES EXAMINED AT 25 KHZ
TO TOP SUPPORT.

NOZZLE →

LOOP 'B' HOT LEG FPL STEAM GENERATOR

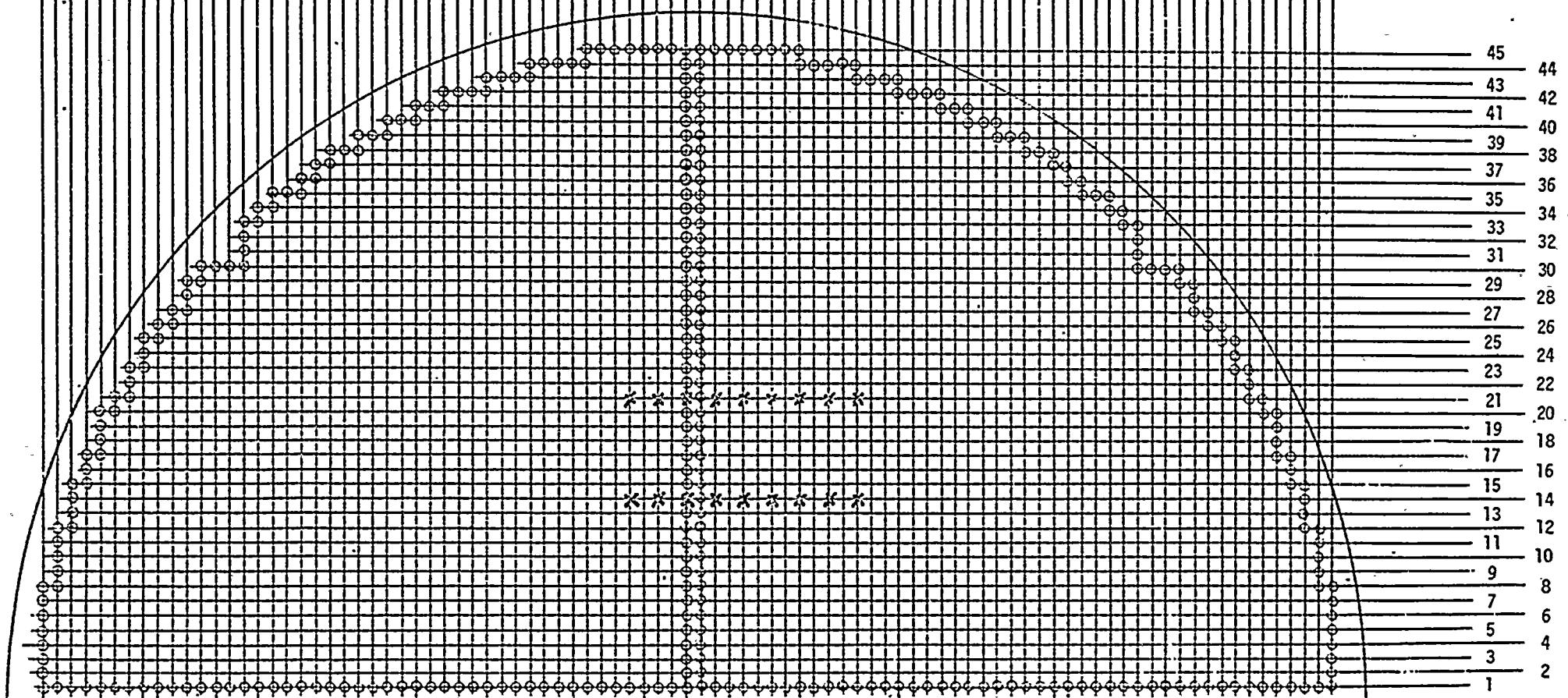
APPENDIX B



COLUMNS

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91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1



← MANWAY

NOZZLE →

TUBES EXAMINED AT 25 KHZ
AT FIRST SUPPORT.
LOOP 'B' COLD LEG FPI. STEAM GENERATOR

APPENDIX B

EDDY CURRENT TEST RESULTS

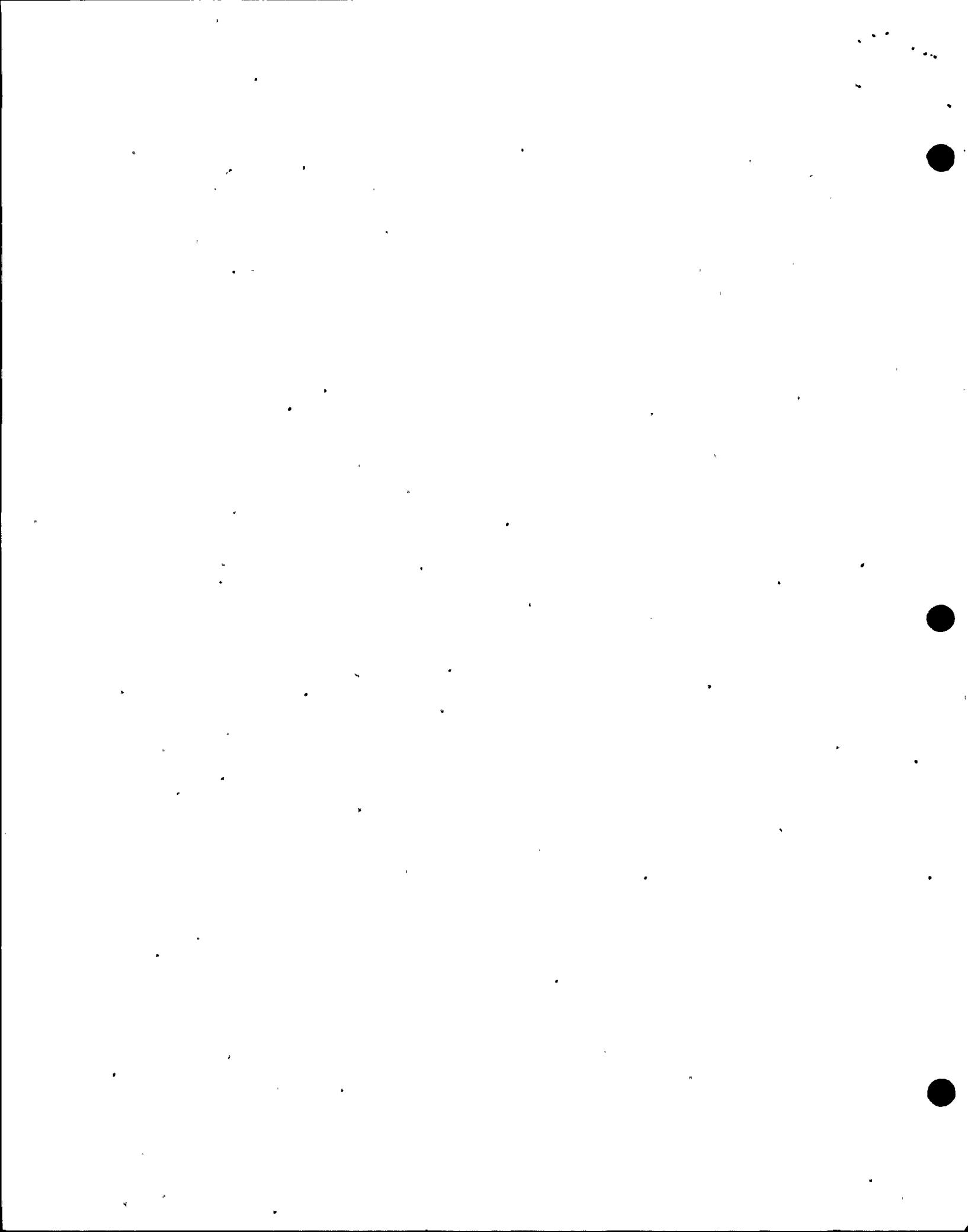
SITE: Turkey Point Unit #3

STEAM GENERATOR: Loop B - Hot Leg

TEST FREQUENCY: 25 KHz

DATE: December, 1973

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
7	13	0"	7	49	0"
7	15	0"	7	51	1/2"
7	17	1/2"	7	53	0"
7	19	1/2"	7	55	0"
7	21	1"	7	57	0"
7	23	1"	7	59	0"
7	25	1/2"	7	61	0"
7	27	1/2"	7	63	0"
7	29	1/2"	7	65	0"
7	31	0"	7	67	0"
7	33	0"	7	69	0"
	35	0"	7	71	0"
7	37	0"	7	73	0"
7	39	0"	7	75	0"
7	41	0"	7	77	0"
7	43	1/2"	7	79	0"
7	45	0"			
7	47	0"			

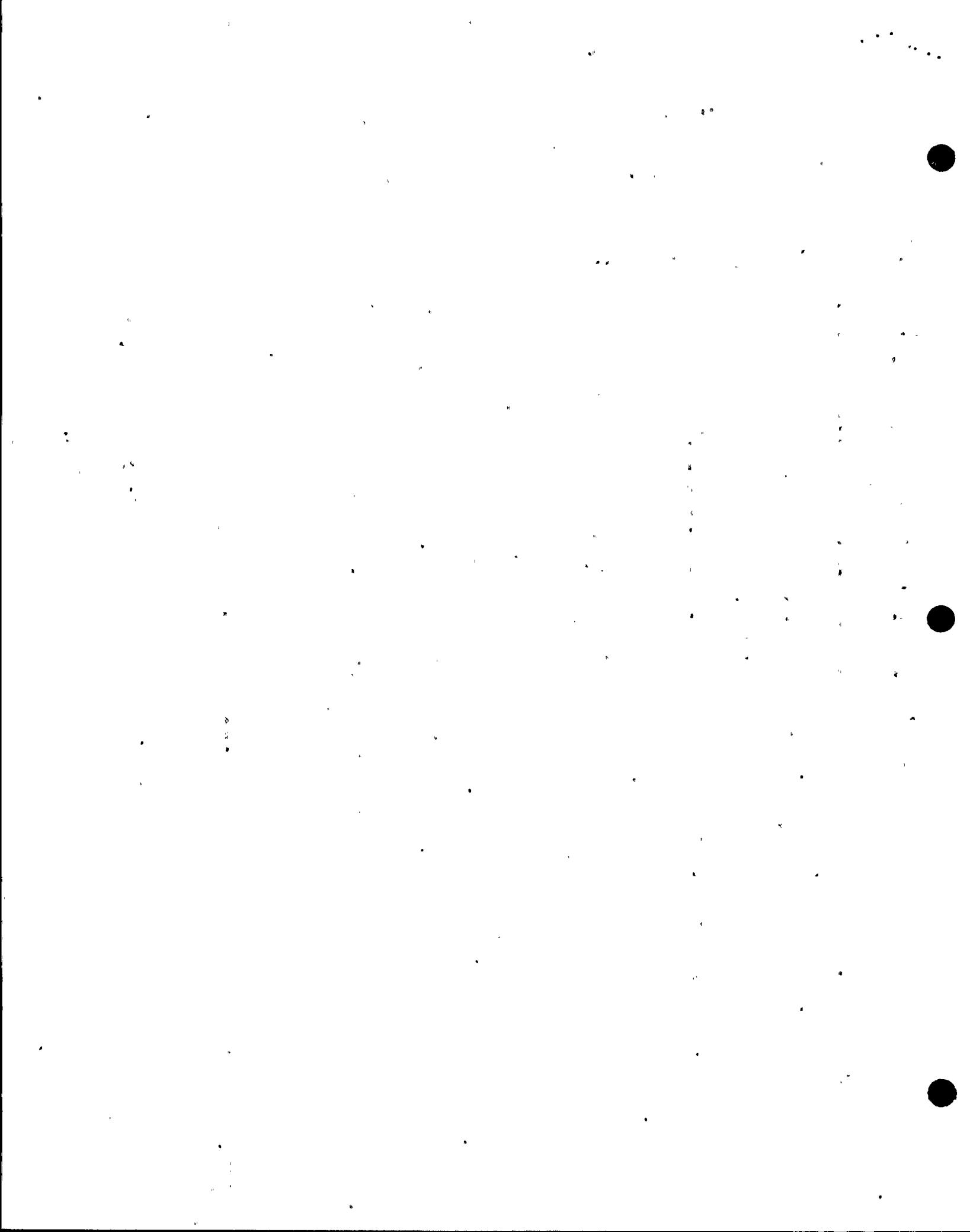


EDDY CURRENT TEST RESULTS

SITE: Turkey Point Unit #3 STEAM GENERATOR: Loop B - Hot Leg

TEST FREQUENCY: 25 KHz. DATE: December, 1973

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
14	13	0"	14	47	2-1/2"
14	15	0"	14	49	3"
14	17	0"	14	51	2-1/2"
14	19	0"	14	53	2"
14	21	1/2"	14	55	1/2"
14	23	1/2"	14	57	1"
14	25	1/2"	14	59	1"
14	27	1/2"	14	61	1/2"
14	29	1/2"	14	63	1/2"
14	31	1/2"	14	65	1/2"
14	33	1/2"	14	67	1/2"
14	35	1/2"	14	69	1/2"
14	37	1/2"	14	71	1/2"
14	39	1-1/2"	14	73	1/2"
14	41	1"	14	75	0"
14	43	1-1/2"	14	77	0"
14	45	2"	14	79	0"



EDDY CURRENT TEST RESULTS

SITE: Turkey Point Unit #3

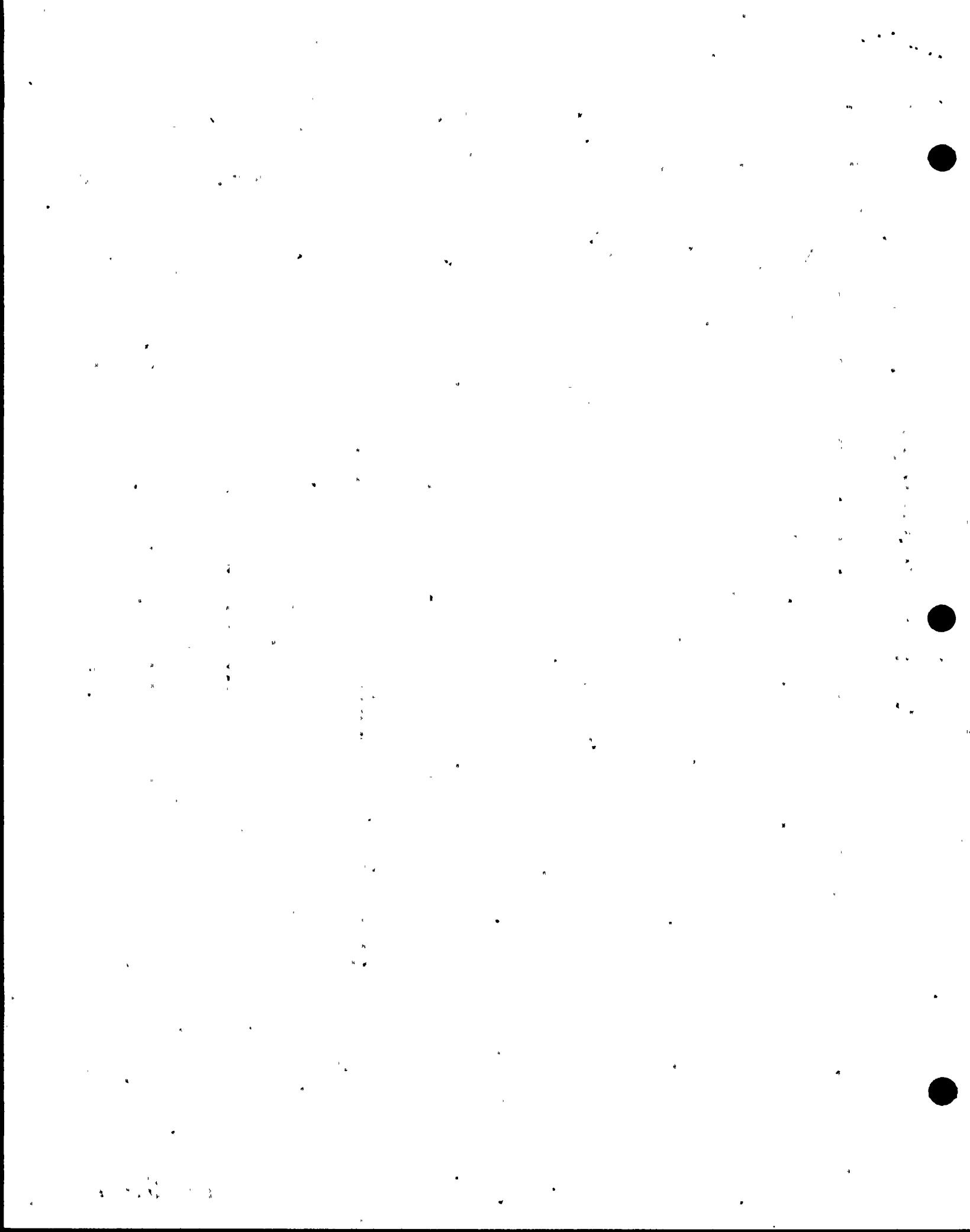
STEAM GENERATOR: Loop B - Hot Leg

TEST FREQUENCY: 25 KHz

DATE:

December, 1973

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
21	11	0"	21	49	1/2"
21	13	0"	21	51	1/2"
21	15	0"	21	53	1"
21	17	0"	21	55	1"
21	19	0"	21	57	1/2"
21	21	0"	21	59	1/2"
21	23	0"	21	61	1/2"
21	25	1/2"	21	63	1/2"
21	27	1/2"	21	65	1/2"
21	29	1/2"	21	67	0"
21	31	1/2"	21	69	0"
21	33	1/2"	21	71	0"
21	35	1/2"	21	73	0"
21	37	1/2"	21	75	0"
21	39	1/2"	21	77	0"
21	41	1/2"	21	79	0"
21	43	1/2"			
21	45	1/2"			
21	47	1/2"			

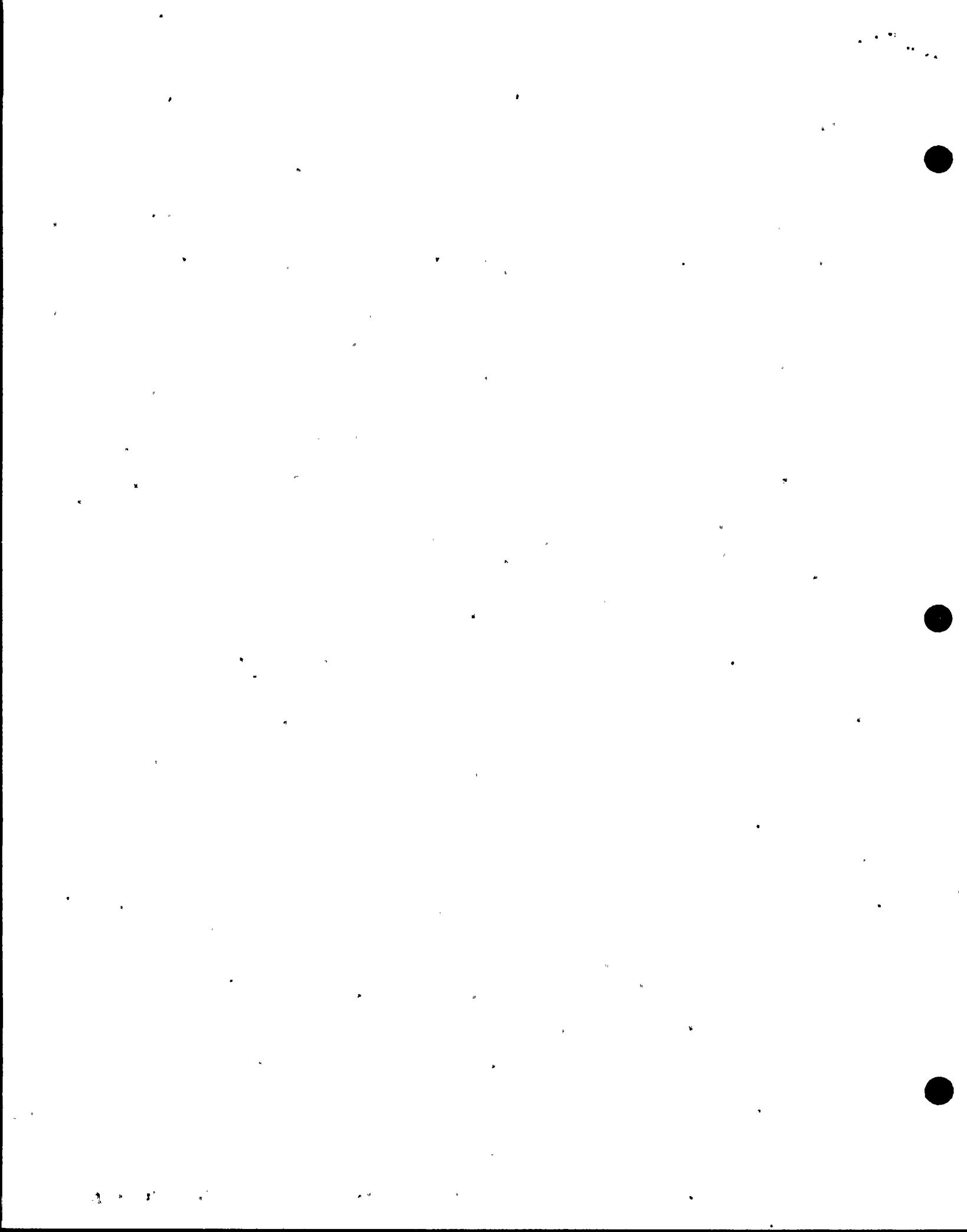


EDDY CURRENT TEST RESULTS

SITE: Turkey Point Unit #3 STEAM GENERATOR: Loop B - Hot Leg

TEST FREQUENCY: 25 KHz DATE: December, 1973

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
28	13	0"	28	47	1/2"
28	15	0"	28	49	1/2"
28	17	0"	28	51	0"
28	19	0"	28	53	1/2"
28	21	0"	28	55	1"
28	33	1/2"	28	57	1"
28	25	1/2"	28	59	1"
28	27	1"	28	61	0"
28	29	1"	28	63	0"
28	31	0"	28	65	0"
28	33	1/2"	28	67	0"
28	35	1/2"	28	69	0"
28	37	1"	28	71	0"
28	39	1/2"	28	73	0"
28	41	1/2"	28	75	0"
28	43	1/2"	28	77	0"
28	45	1/2"	28	79	0"



EDDY CURRENT TEST RESULTS

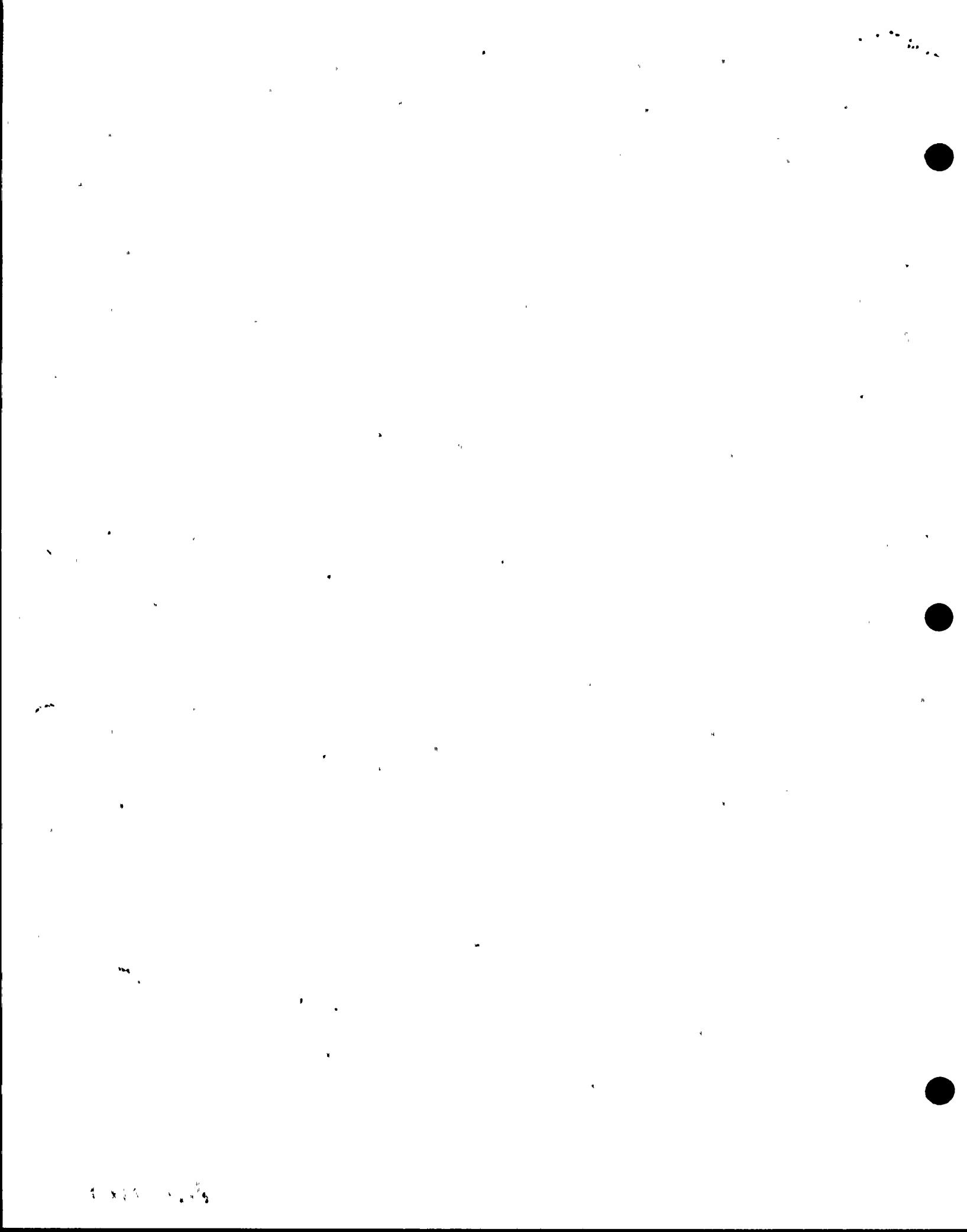
SITE: Turkey Point Unit #3

STEAM GENERATOR: Loop B - Cold Leg

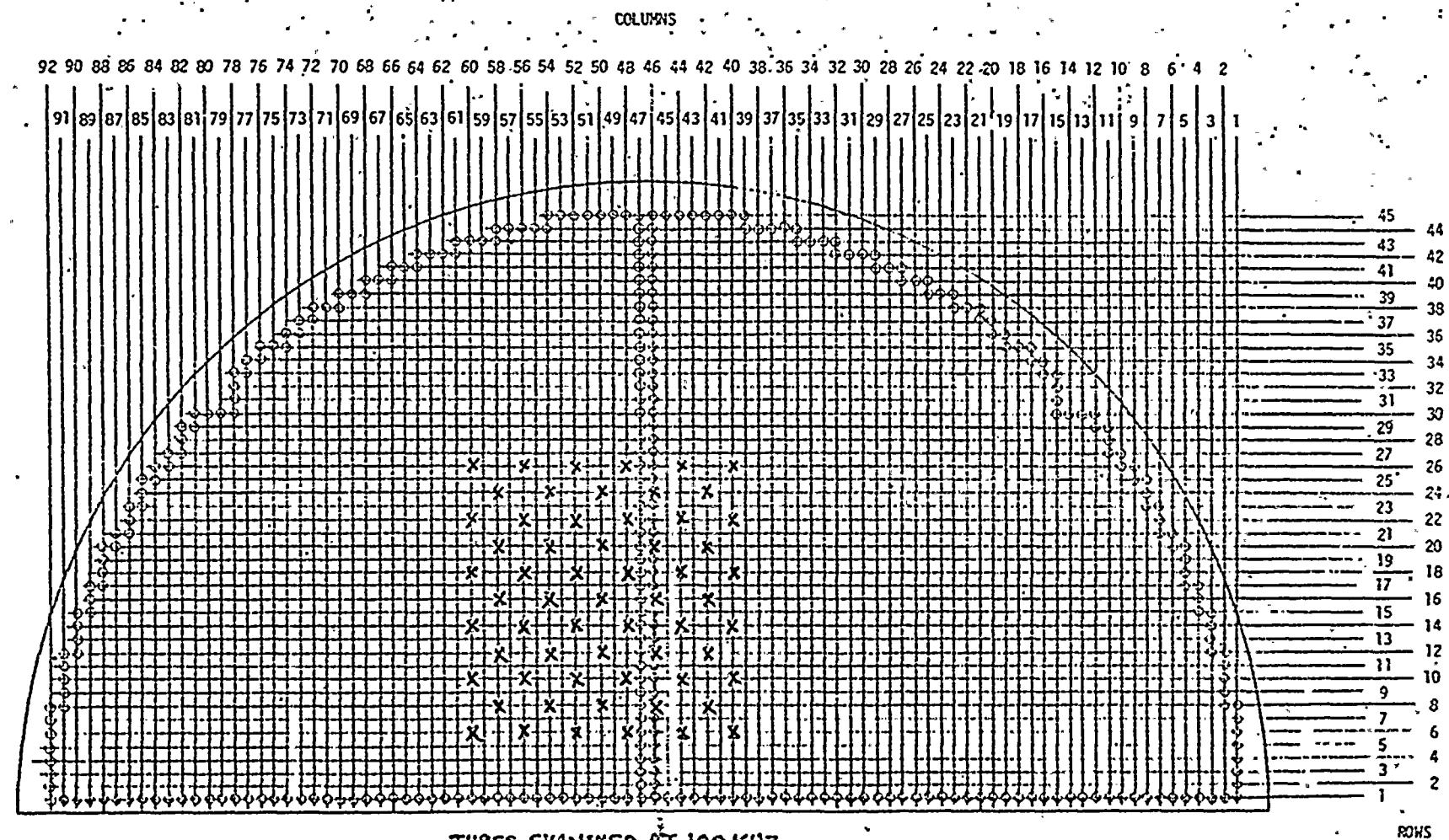
TEST FREQUENCY: 25 KHz

DATE: December, 1973

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
14	35	2-1/2"	21	35	1"
14	37	2-1/2"	21	37	1"
14	39	2-1/2"	21	39	1/2"
14	41	2"	21	41	1/2"
14	43	2"	21	43	1/2"
14	45	2"	21	45	1/2"
14	47	1-1/2"	21	47	1/2"
14	49	1"	21	49	1/2"
14	51	1"	21	51	1/2"



APPENDIX C

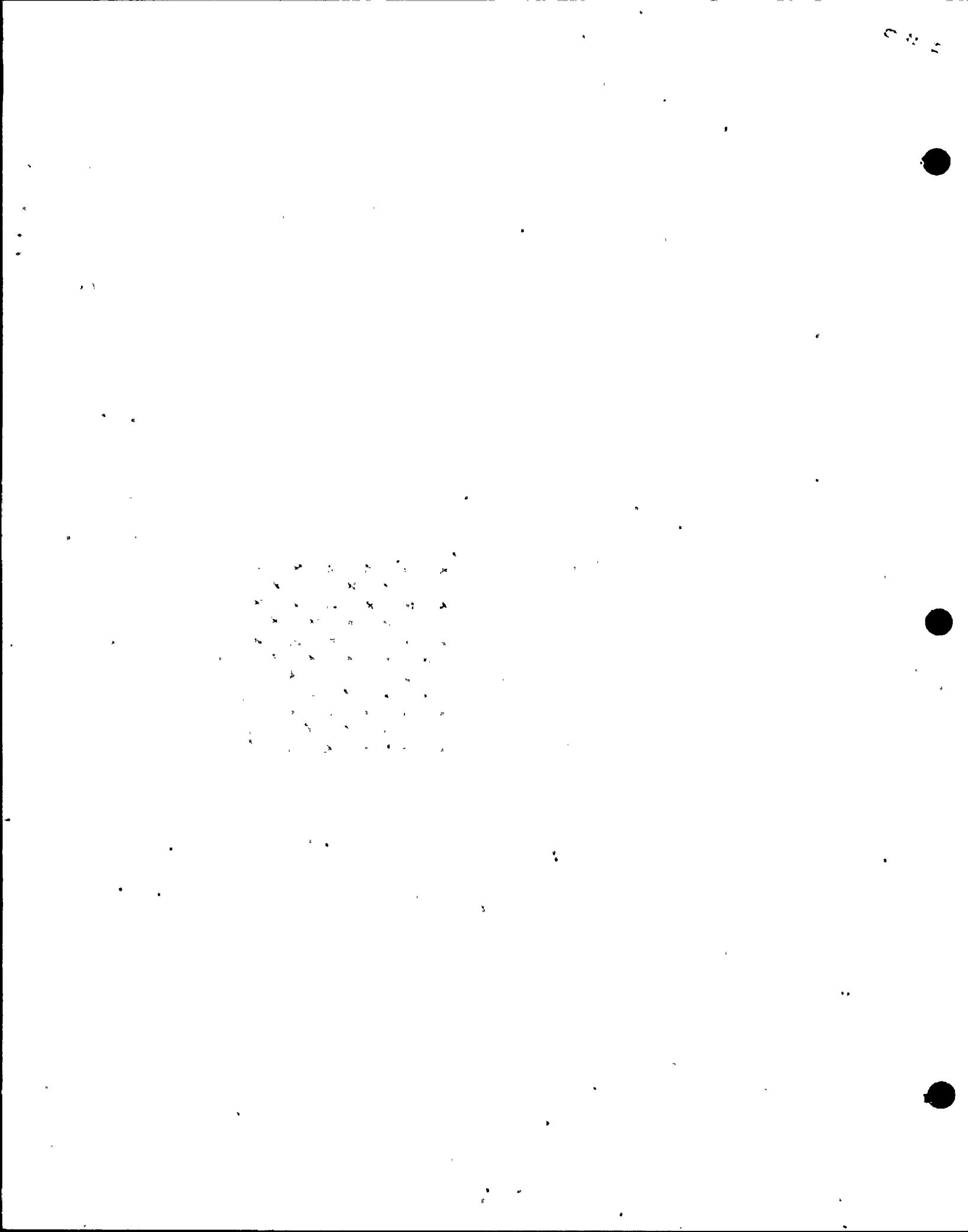


TUBES EXAMINED AT 100 KHZ
AT FIRST SUPPORT

LOOP A' HOT & COLD LEG FLX STEAM GENERATOR UNIT 4

← MANWAY

NOZZLE →



APPENDIX D-1

9
10
11
12

EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
3	69	31	O.D.	1/2" above tubesheet
5	19	35	O.D.	1/2" above tubesheet
5	65	30	O.D.	1/2" above tubesheet
5	68	24	O.D.	1/2" above tubesheet
7	23	23	O.D.	1/2" above tubesheet
8	25	40	O.D.	1/2" above tubesheet
8	28	29	O.D.	1/2" above tubesheet
8	44	54	O.D.	At top of tubesheet
9	21	33	O.D.	1/2" above tubesheet
9	68	24	O.D.	1/2" above tubesheet
10	22	21	O.D.	1/2" above tubesheet
10	50		I.D. or Dent	15" above tubesheet
10	51	21	O.D.	1" above tubesheet
11	21	21	O.D.	1/2" above tubesheet
11	22	22	O.D.	1/2" above tubesheet
11	59	28	O.D.	1" above tubesheet
12	37	34	O.D.	1/2" above tubesheet
12	39	45	O.D.	At top of tubesheet
12	40	65	O.D.	1/2" above tubesheet
12	65	21	O.D.	1/2" above tubesheet
13	26	28	O.D.	1/2" above tubesheet
13	27	21	O.D.	1/2" above tubesheet
13	32	34	O.D.	1/2" above tubesheet
13	69	38	O.D.	1/2" above tubesheet
14	68	28	O.D.	1/2" above tubesheet
15	40	37	O.D.	1" above tubesheet
15	44	48	O.D.	1/2" above tubesheet
		62	O.D.	1" above tubesheet
15	46	31	O.D.	1" above tubesheet

EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
15	49	36	O.D.	1" above tubesheet
15	58	36	O.D.	1" above tubesheet
15	68	28	O.D.	1/2" above tubesheet
15	69	24	O.D.	1/2" above tubesheet
16	37	50	O.D.	1" above tubesheet
16	44	48	O.D.	1/2" above tubesheet
16	46	50	O.D.	1" above tubesheet
16	58	100	O.D.	1" above tubesheet, leaker
17	23	28	O.D.	At top of tubesheet
17	37	24	O.D.	1/2" above tubesheet
17	39	40	O.D.	1/2" above tubesheet
17	44	32	O.D.	1/2" above tubesheet
18	42	34	O.D.	1" above tubesheet
18	44	23	O.D.	1" above tubesheet
18	48	30	O.D.	1" above tubesheet
18	65	27	O.D.	1/2" above tubesheet
19	48	46	O.D.	1" above tubesheet
		22	O.D.	1/2" above tubesheet
19	64	32	O.D.	1/2" above tubesheet
20	25	40	O.D.	1/2" above tubesheet
20	64	32	O.D.	1/2" above tubesheet
20	65	32	O.D.	1/2" above tubesheet
21	27	29	O.D.	1/2" above tubesheet
21	64	25	O.D.	1/2" above tubesheet
22	34	26	O.D.	1/2" above tubesheet
22	41	62	O.D.	1" above tubesheet
22	55	44	O.D.	1/2" above tubesheet
23	40	26	O.D.	1/2" above tubesheet
23	54	25	O.D.	1/2" above tubesheet

EDDY CURRENT TEST RESULTS

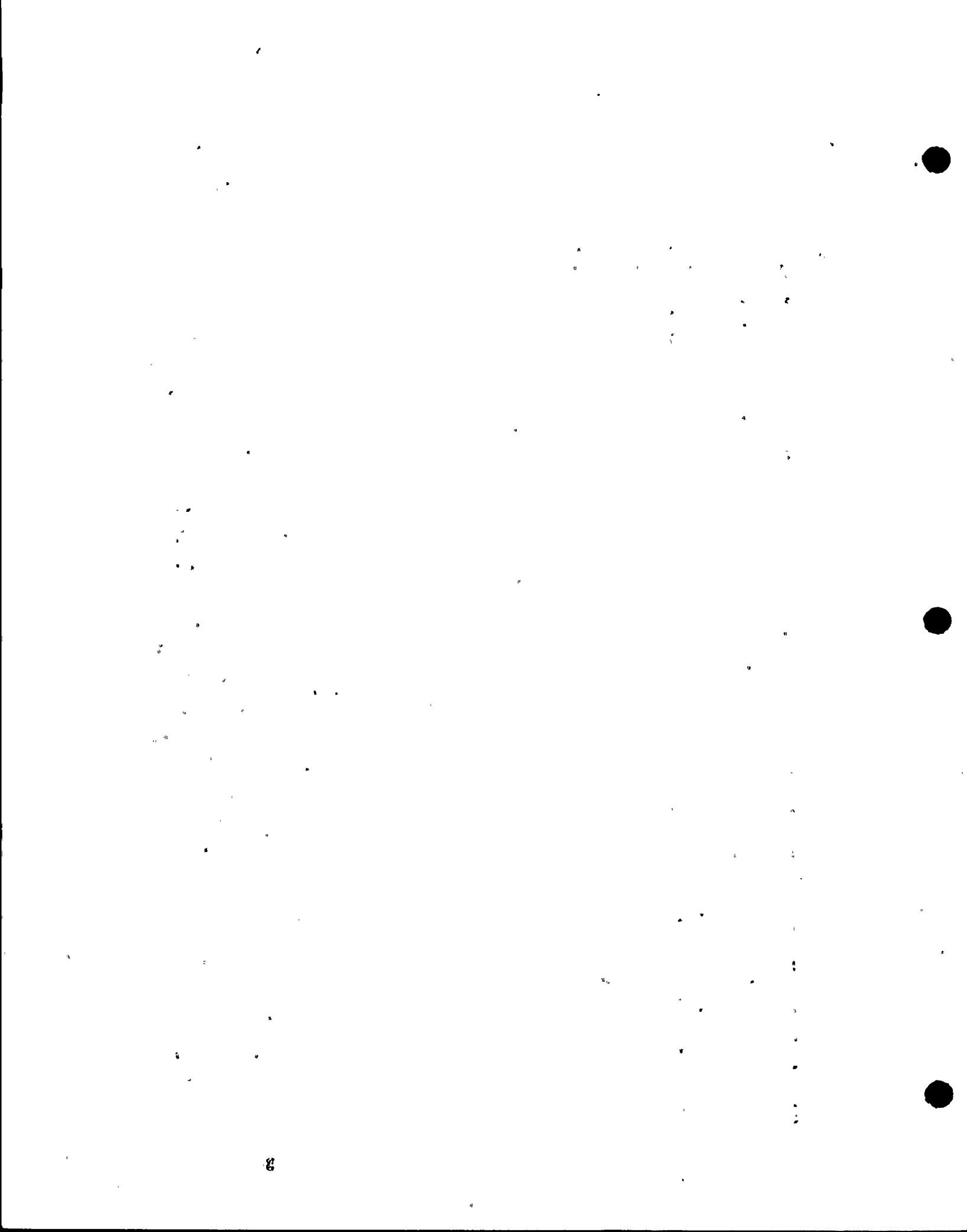
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
23	55	25	O.D.	1/2" above tubesheet
24	26	35	O.D.	1/2" above tubesheet
24	27	35	O.D.	1/2" above tubesheet
24	41	58	O.D.	1" above tubesheet
24	55	36	O.D.	1" above tubesheet
24	63	47	O.D.	1/2" above tubesheet
25	26	38	O.D.	1/2" above tubesheet
25	27	24	O.D.	1/2" above tubesheet
25	37	72	O.D.	1/2" above tubesheet
25	41	98	O.D.	At top of tubesheet
25	42	44	O.D.	1/2" above tubesheet
25	47	30	O.D.	1" above tubesheet
		48	O.D.	3/4" above tubesheet
		53	O.D.	1/2" above tubesheet
25	53	28	O.D.	1" above tubesheet
25	54	25	O.D.	1" above tubesheet
25	55	37	O.D.	1/2" above tubesheet
25	56	62	O.D.	1" above tubesheet
25	60	23	O.D.	1/2" above tubesheet
26	25	33	O.D.	1/2" above tubesheet
26	26	48	O.D.	1/2" above tubesheet
26	29	60	O.D.	1/2" above tubesheet
26	30	45	O.D.	1/2" above tubesheet
26	35	38	O.D.	1" above tubesheet
26	44	38	O.D.	1/2" above tubesheet
26	59	28	O.D.	1" above tubesheet
26	60	34	O.D.	1" above tubesheet
27	27	46	O.D.	At top of tubesheet
27	29	62	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

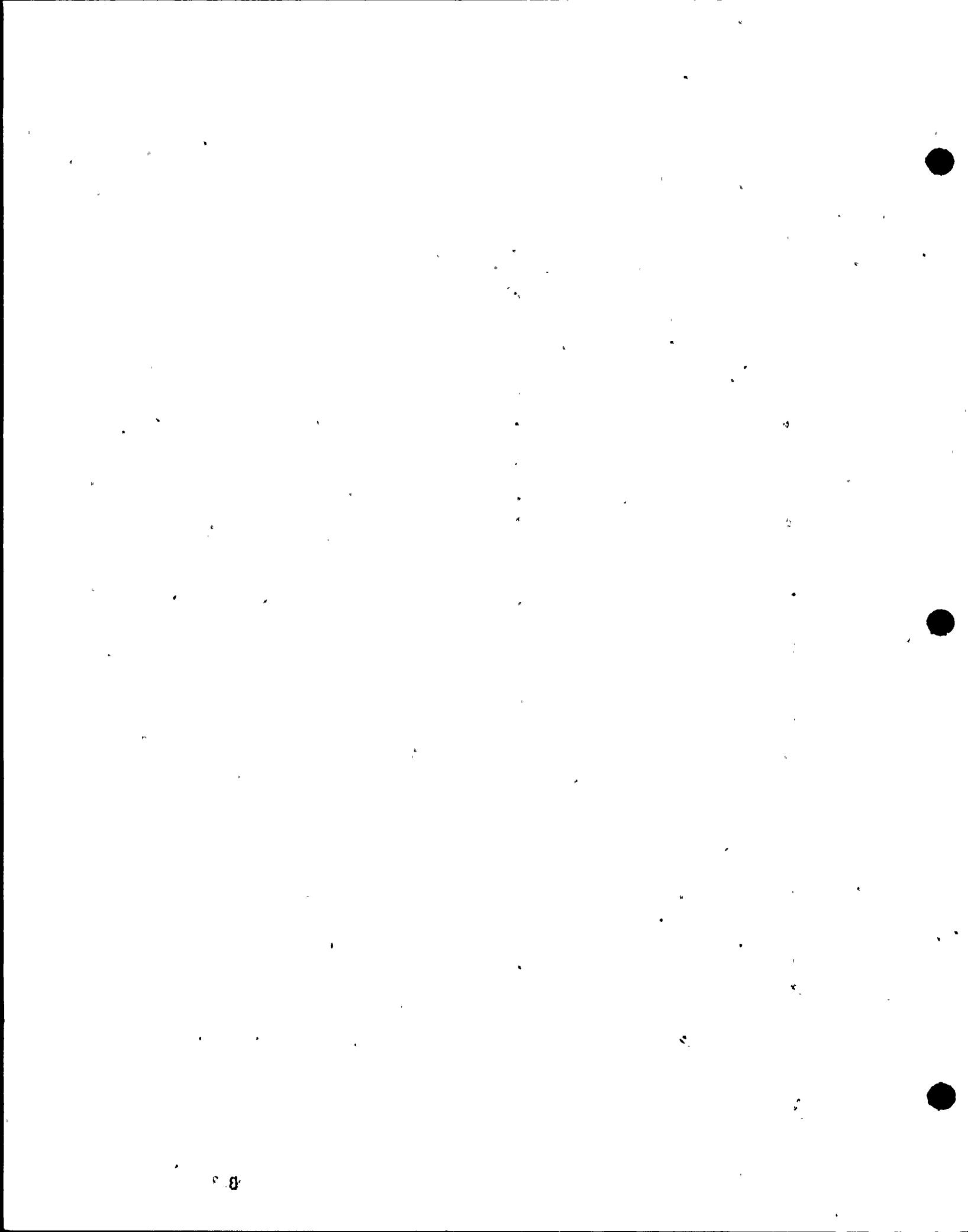
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
27	30	85	O.D.	1/2" above tubesheet
27	35	64	O.D.	At top of tubesheet
27	36	60	O.D.	1/2" above tubesheet
27	37	58	O.D.	1/2" above tubesheet
27	38	31	O.D.	1" above tubesheet
27	39	49	O.D.	1" above tubesheet
27	40	41	O.D.	1" above tubesheet
27	43	24	O.D.	1/2" above tubesheet
28	36	60	O.D.	1/2" above tubesheet
28	37	99	O.D.	At top of tubesheet
28	38	58	O.D.	1" above tubesheet
28	39	89	O.D.	1" above tubesheet
28	40	58	O.D.	1/2" above tubesheet
28	41	52	O.D.	1" above tubesheet
28	43	72	O.D.	1" above tubesheet
28	47	69	O.D.	1/2" above tubesheet
29	38	52	O.D.	1" above tubesheet
29	39	38	O.D.	1" above tubesheet
29	40	33	O.D.	1/2" above tubesheet
29	41	42	O.D.	1" above tubesheet
29	43	68	O.D.	1" above tubesheet
29	55	22	O.D.	1/2" above tubesheet
29	56	27	O.D.	1/2" above tubesheet
30	40	80	O.D.	1/2" above tubesheet
30	41	31	O.D.	1/2" above tubesheet
30	42	38	O.D.	1" above tubesheet
30	50	36	O.D.	1/2" above tubesheet
30	51	50	O.D.	1/2" above tubesheet
30	54	26	O.D.	1/2" above tubesheet
30	57	68	O.D.	1/2" above tubesheet
32	42	52	O.D.	At top of tubesheet



EDDY CURRENT TEST RESULTS

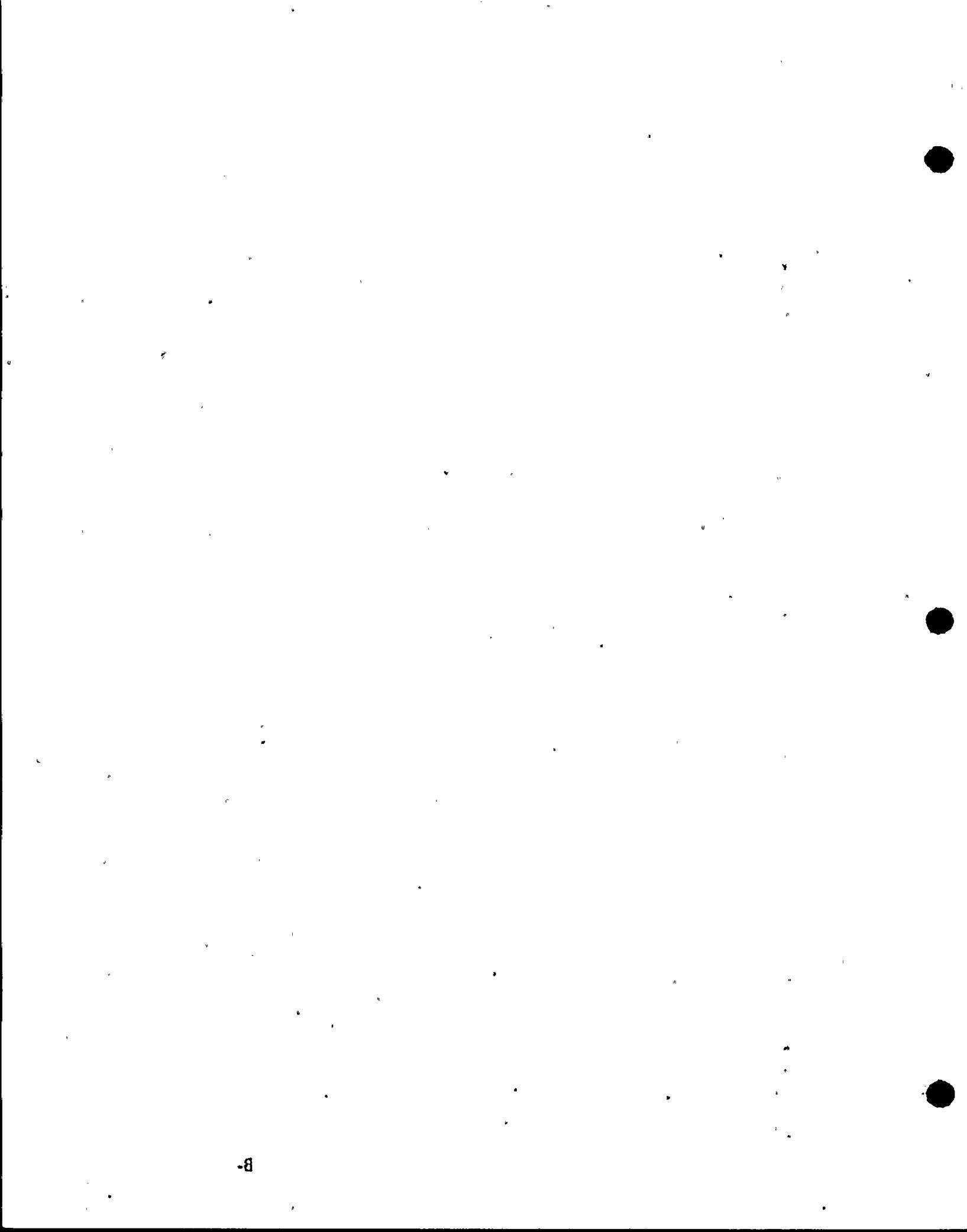
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
32	46	52	O.D.	At top of tubesheet
32	52	30	O.D.	1/2" above tubesheet
32	54	23	O.D.	1/2" above tubesheet
33	54	30	O.D.	1/2" above tubesheet
34	55	70	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
4	68	<20	O.D.	1/2" above tubesheet
4	69	<20	O.D.	1/2" above tubesheet
5	22	<20	O.D.	1/2" above tubesheet
5	24	<20	O.D.	1/2" above tubesheet
5	67	<20	O.D.	1/2" above tubesheet
6	22	<20	O.D.	1/2" above tubesheet
6	65	<20	O.D.	1/2" above tubesheet
6	66	<20	O.D.	1/2" above tubesheet
6	69	<20	O.D.	1/2" above tubesheet
7	19	<20	O.D.	1/2" above tubesheet
7	20	<20	O.D.	At top of tubesheet
7	22	<20	O.D.	1/2" above tubesheet
7	24	<20	O.D.	At top of tubesheet
7	25	<20	O.D.	At top of tubesheet
7	45	<20	O.D.	At top of tubesheet
7	65	<20	O.D.	At top of tubesheet
7	67	<20	O.D.	1/2" above tubesheet
7	68	<20	O.D.	1/2" above tubesheet
7	69	<20	O.D.	1/2" above tubesheet
8	24	<20	O.D.	At top of tubesheet
8	45	<20	O.D.	At top of tubesheet
8	68	<20	O.D.	1/2" above tubesheet
8	69	<20	O.D.	At top of tubesheet
9	51	<20	O.D.	1" above tubesheet
9	64	<20	O.D.	1/2" above tubesheet
9	65	<20	O.D.	At top of tubesheet
9	66	<20	O.D.	1/2" above tubesheet
9	67	<20	O.D.	At top of tubesheet

8

EDDY CURRENT TEST RESULTS

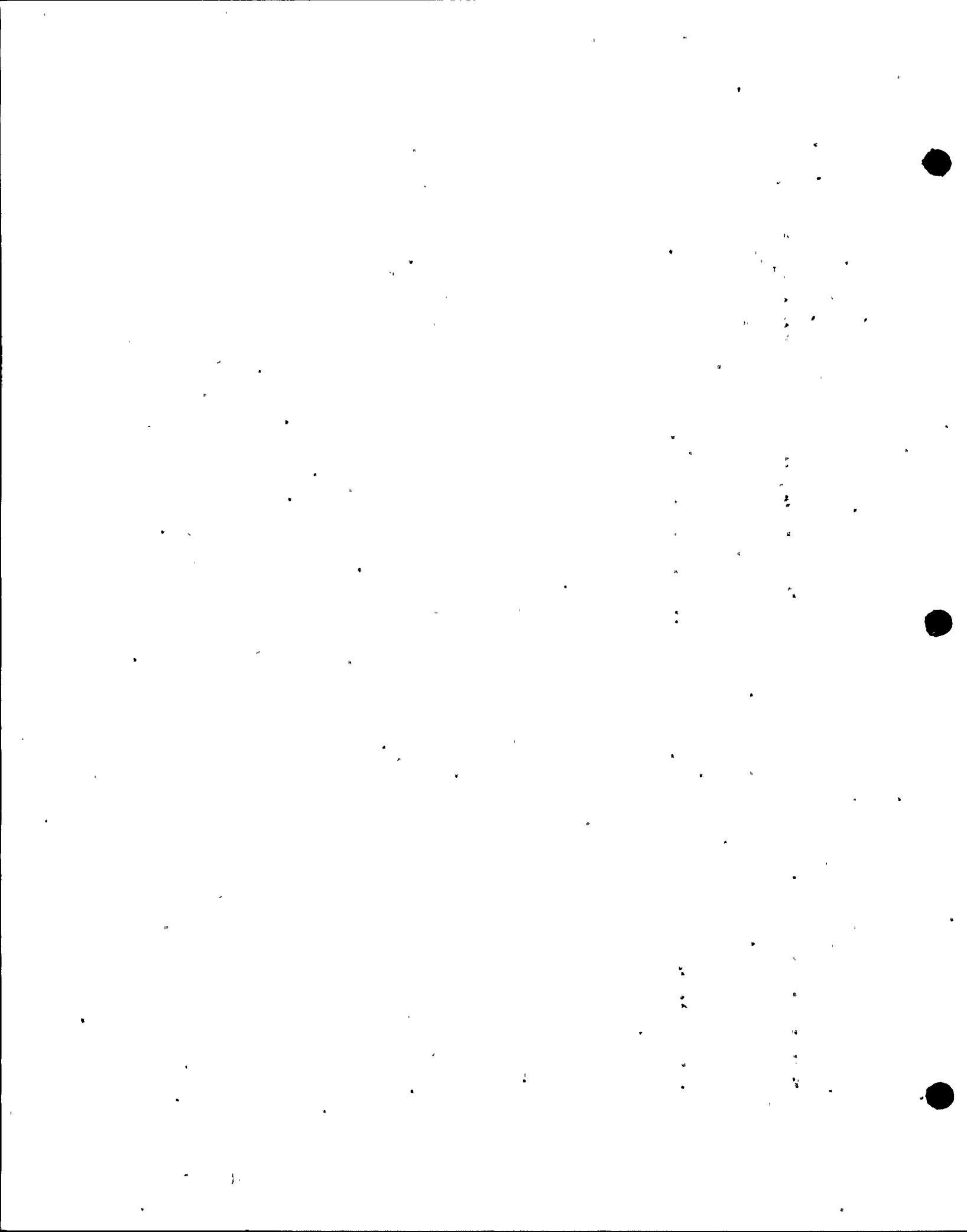
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
9	69	<20	O.D.	At top of tubesheet
10	21	<20	O.D.	1/2" above tubesheet
10	25	<20	O.D.	At top of tubesheet
10	26	<20	O.D.	1/2" above tubesheet
10	28	<20	O.D.	1/2" above tubesheet
10	64	<20	O.D.	At top of tubesheet
10	65	<20	O.D.	At top of tubesheet
11	23	<20	O.D.	1/2" above tubesheet
11	26	<20	O.D.	1/2" above tubesheet
11	27	<20	O.D.	At top of tubesheet
11	28	<20	O.D.	1/2" above tubesheet
11	29	<20	O.D.	1/2" above tubesheet
11	30	<20	O.D.	1/2" above tubesheet
11	32	<20	O.D.	1/2" above tubesheet
11	41	<20	O.D.	1/2" above tubesheet
11	43	<20	O.D.	At top of tubesheet
11	64	<20	O.D.	1/2" above tubesheet
11	65	<20	O.D.	1/2" above tubesheet
11	67	<20	O.D.	At top of tubesheet
11	68	<20	O.D.	1/2" above tubesheet
11	69	<20	O.D.	At top of tubesheet
12	25	<20	O.D.	1/2" above tubesheet
12	26	<20	O.D.	1/2" above tubesheet
12	27	<20	O.D.	1/2" above tubesheet
12	28	<20	O.D.	1/2" above tubesheet
12	30	<20	O.D.	1/2" above tubesheet
12	31	<20	O.D.	1/2" above tubesheet
12	32	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

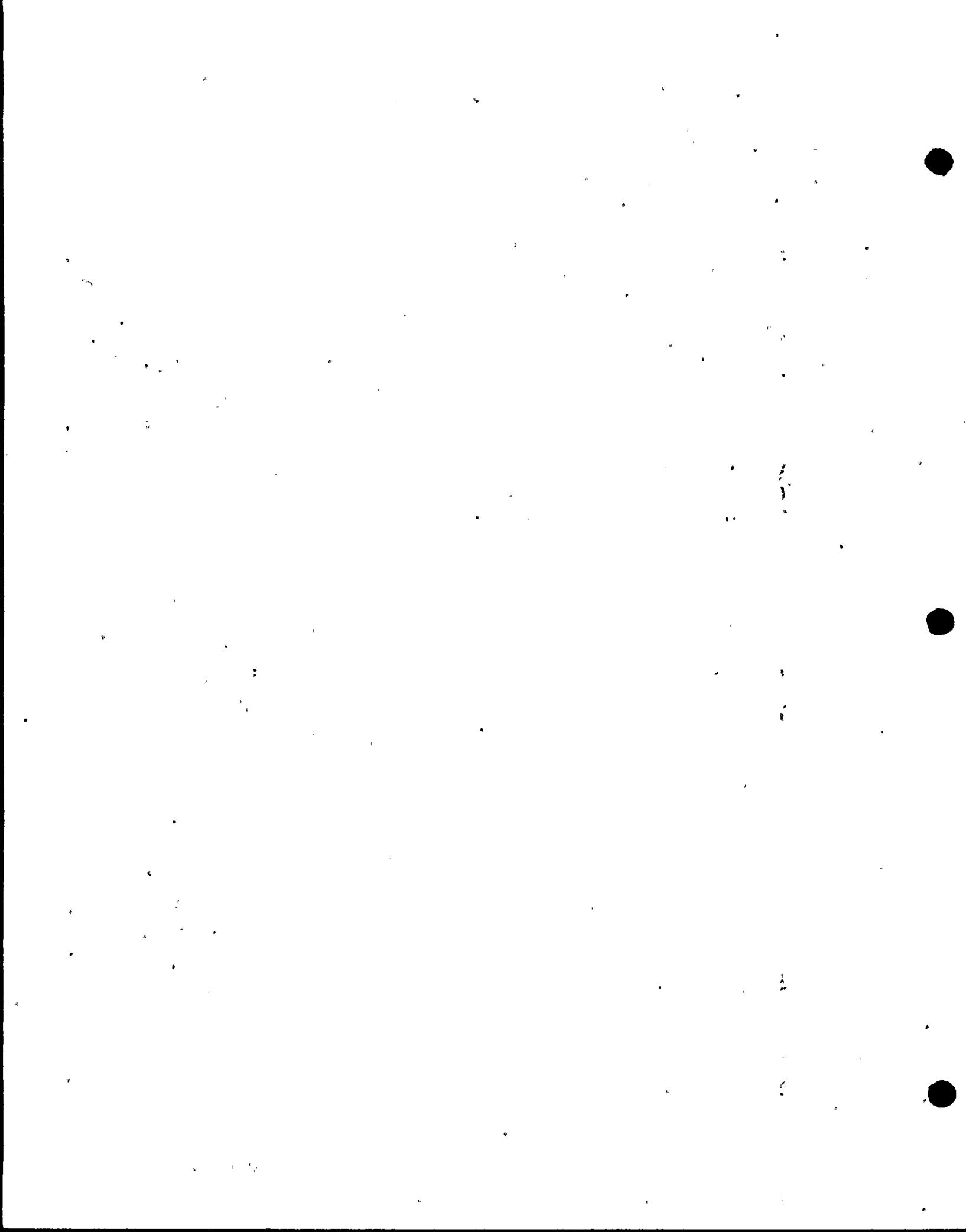
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
12	34	<20	O.D.	1/2" above tubesheet
12	44	<20	O.D.	At top of tubesheet
12	46	<20	O.D.	24" above tubesheet
12	62	<20	O.D.	1/2" above tubesheet
12	64	20	O.D.	1/2" above tubesheet
12	66	<20	O.D.	1/2" above tubesheet
12	67	<20	O.D.	1/2" above tubesheet
12	68	<20	O.D.	At top of tubesheet
12	69	<20	O.D.	At top of tubesheet
13	31	<20	O.D.	1/2" above tubesheet
13	33	<20	O.D.	1/2" above tubesheet
13	35	<20	O.D.	1/2" above tubesheet
13	46	<20	O.D.	5" above tubesheet
13	47	<20	O.D.	1" above tubesheet
13	64	<20	O.D.	1/2" above tubesheet
13	65	20	O.D.	1/2" above tubesheet
13	67	<20	O.D.	1/2" above tubesheet
13	68	<20	O.D.	1/2" above tubesheet
14	25	20	O.D.	1/2" above tubesheet
14	27	<20	O.D.	At top of tubesheet
14	29	<20	O.D.	1/2" above tubesheet
14	31	<20	O.D.	1/2" above tubesheet
14	32	<20	O.D.	1/2" above tubesheet
14	35	<20	O.D.	1/2" above tubesheet
14	36	<20	O.D.	1" above tubesheet
14	41	<20	O.D.	1/2" above tubesheet
14	42	<20	O.D.	1/2" above tubesheet
14	43	<20	O.D.	At top of tubesheet



EDDY CURRENT TEST RESULTS

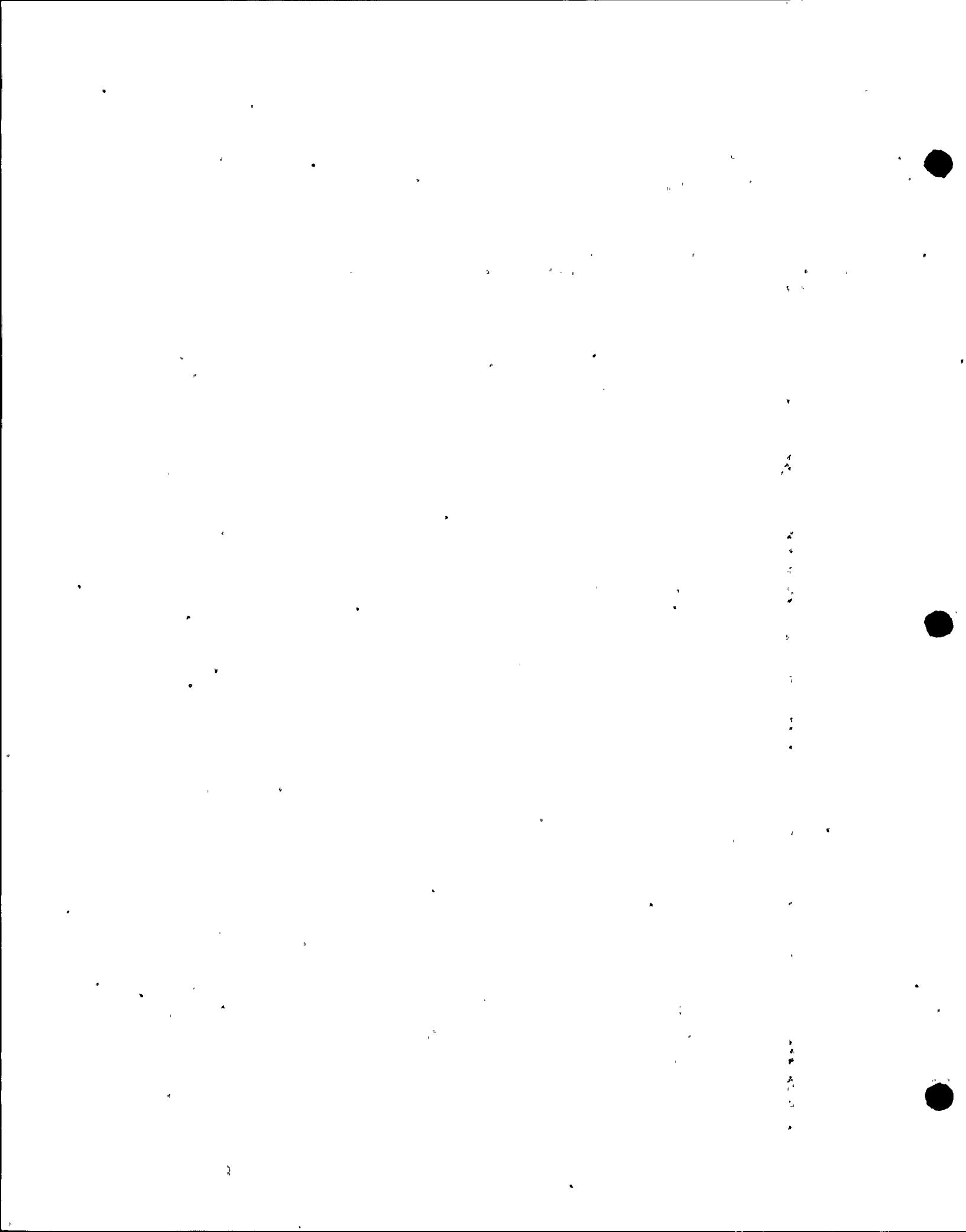
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
14	44	<20	O.D.	1/2" above tubesheet
14	45	<20	O.D.	1" above tubesheet
14	46	<20	O.D.	1/2" above tubesheet
14	58	<20	O.D.	1/2" above tubesheet
14	59	<20	O.D.	1/2" above tubesheet
14	62	<20	O.D.	1/2" above tubesheet
14	63	<20	O.D.	1/2" above tubesheet
14	64	<20	O.D.	At top of tubesheet
14	66	<20	O.D.	1/2" above tubesheet
14	67	<20	O.D.	1/2" above tubesheet
15	34	<20	O.D.	1/2" above tubesheet
15	36	<20	O.D.	1" above tubesheet
15	43	<20	O.D.	2" above tubesheet
15	45	<20	O.D.	At top of tubesheet
15	63	<20	O.D.	1/2" above tubesheet
15	64	<20	O.D.	At top of tubesheet
15	65	<20	O.D.	At top of tubesheet
15	67	<20	O.D.	1/2" above tubesheet
16	24	<20	O.D.	At top of tubesheet
16	27	<20	O.D.	At top of tubesheet
16	29	<20	O.D.	1/2" above tubesheet
16	34	<20	O.D.	1/2" above tubesheet
16	35	<20	O.D.	1/2" above tubesheet
16	36	<20	O.D.	1" above tubesheet
16	38	<20	O.D.	1/2" above tubesheet
16	43	<20	O.D.	3" above tubesheet
16	48	<20	O.D.	1/2" above tubesheet
16	49	<20	O.D.	1/2" above tubesheet
16	56	<20	O.D.	1" above tubesheet



EDDY CURRENT TEST RESULTS

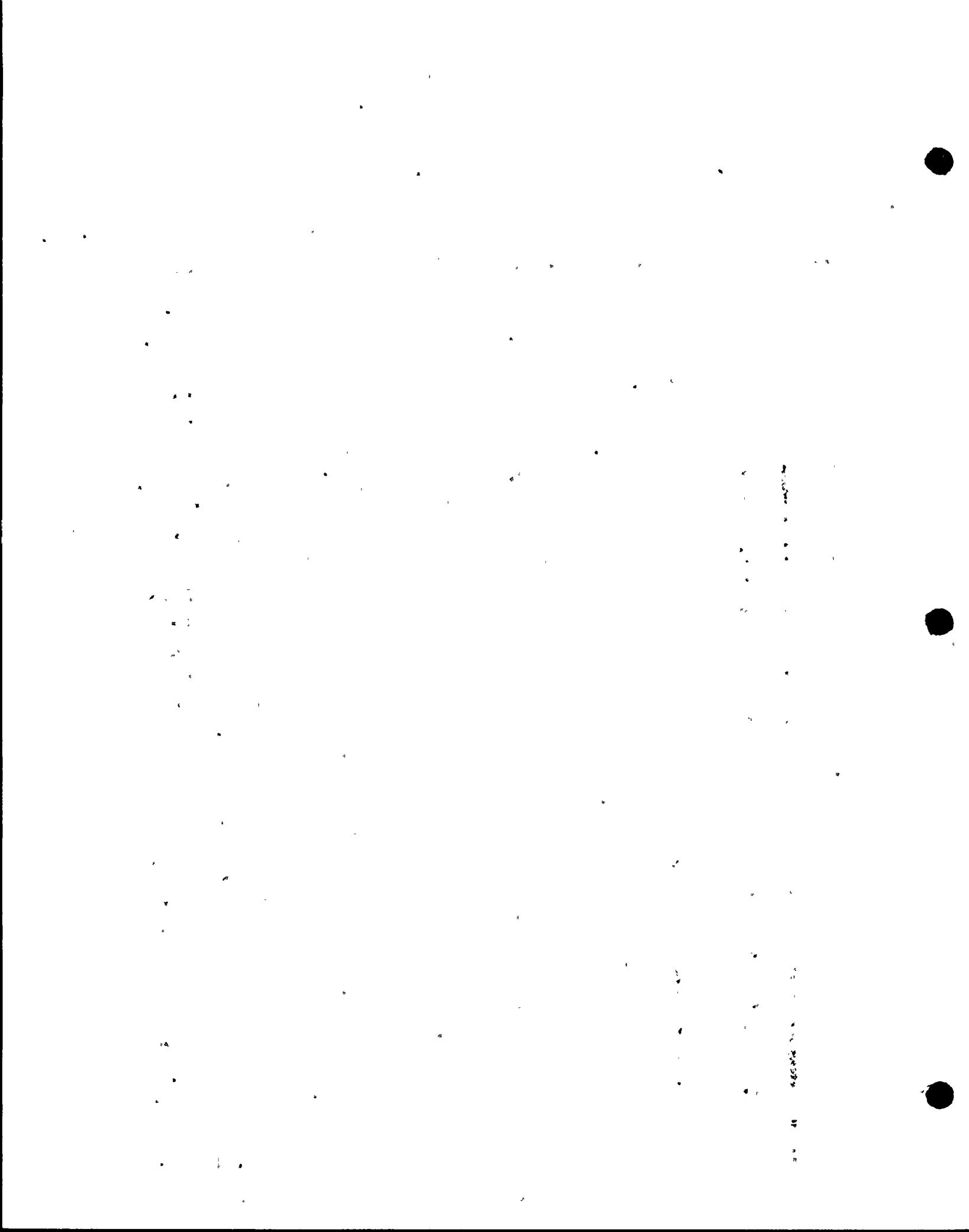
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
16	57	<20	O.D.	1" above tubesheet
16	61	<20	O.D.	1/2" above tubesheet
17	24	<20	O.D.	1/2" above tubesheet
17	29	<20	O.D.	1/2" above tubesheet
17	33	<20	O.D.	1/2" above tubesheet
17	34	<20	O.D.	1/2" above tubesheet
17	35	<20	O.D.	1/2" above tubesheet
17	36	<20	O.D.	1" above tubesheet
17	45	<20	O.D.	1/2" above tubesheet
17	46	20	O.D.	1" above tubesheet
18	23	<20	O.D.	At top of tubesheet
18	28	<20	O.D.	1/2" above tubesheet
18	29	<20	O.D.	At top of tubesheet
18	30	<20	O.D.	At top of tubesheet
18	36	<20	O.D.	1" above tubesheet
18	38	<20	O.D.	1/2" above tubesheet
18	43	<20	O.D.	1/2" above tubesheet
18	46	<20	O.D.	1" above tubesheet
18	47	<20	O.D.	1/2" above tubesheet
18	48	<20	O.D.	1/2" above tubesheet
18	52	<20	O.D.	1" above tubesheet
18	66	<20	O.D.	1/2" above tubesheet
18	67	<20	O.D.	1/2" above tubesheet
19	35	<20	O.D.	1/2" above tubesheet
19	36	<20	O.D.	1/2" above tubesheet
19	66	<20	O.D.	At top of tubesheet
20	26	<20	O.D.	1/2" above tubesheet
20	32	<20	O.D.	1/2" above tubesheet
20	46	<20	O.D.	24" above tubesheet



EDDY CURRENT TEST RESULTS

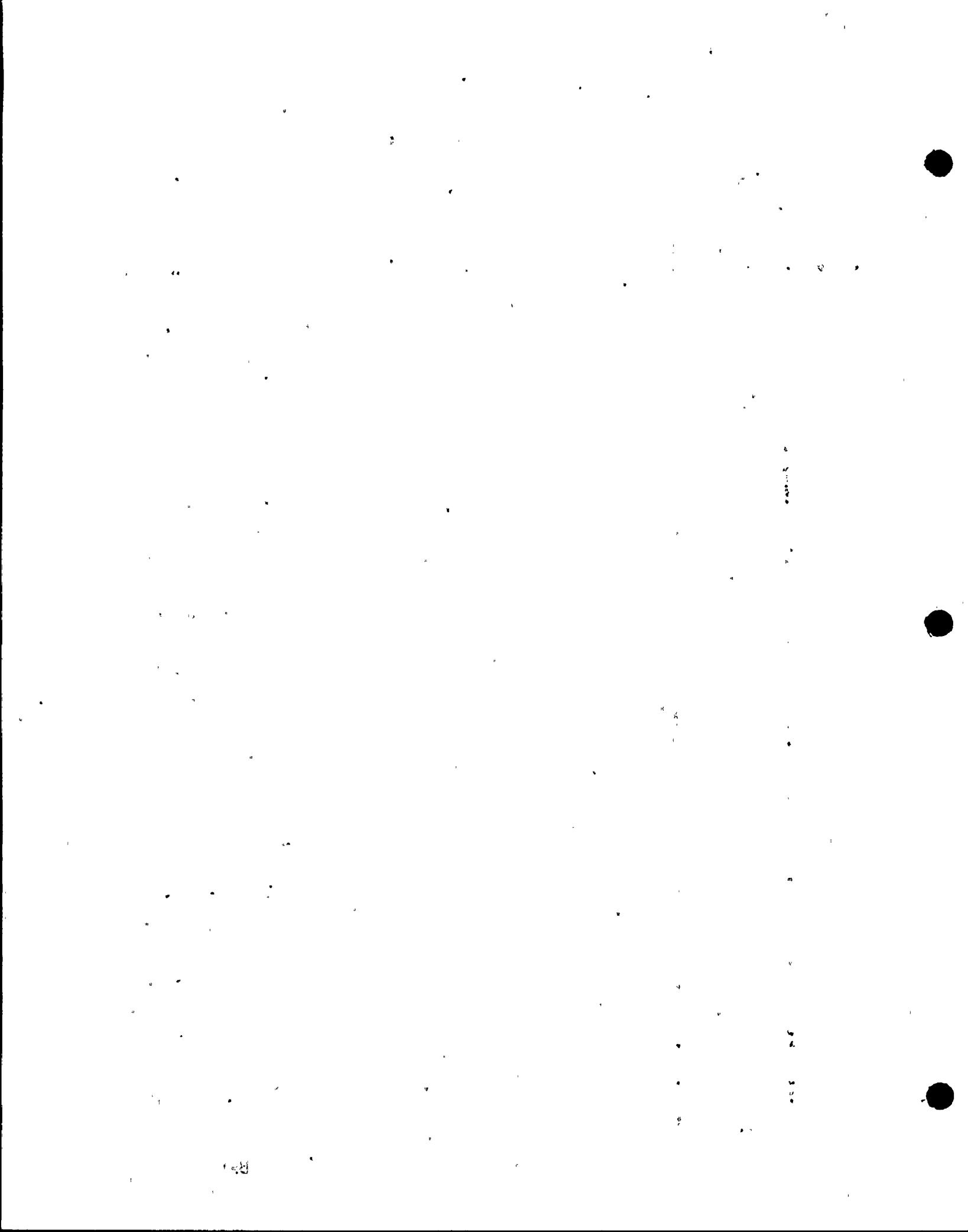
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
21	25	<20	O.D.	1/2" above tubesheet
21	33	<20	O.D.	1/2" above tubesheet
21	67	<20	O.D.	At top of tubesheet
22	28	<20	O.D.	18" above tubesheet
22	33	<20	O.D.	1/2" above tubesheet
22	53	<20	O.D.	1/2" above tubesheet
22	54	20	O.D.	1" to 1/2" above tubesheet
22	56	<20	O.D.	1/2" above tubesheet
22	57	<20	O.D.	1/2" above tubesheet
22	58	<20	O.D.	1/2" above tubesheet
22	64	<20	O.D.	1/2" above tubesheet
22	65	<20	O.D.	At top of tubesheet
23	53	<20	O.D.	1" above tubesheet
23	56	<20	O.D.	1/2" above tubesheet
23	64	<20	O.D.	1/2" above tubesheet
24	40	<20	O.D.	1/2" above tubesheet
24	42	<20	O.D.	1/2" above tubesheet
24	53	20	O.D.	1/2" above tubesheet
24	54	<20	O.D.	1/2" above tubesheet
24	56	<20	O.D.	1" above tubesheet
24	59	<20	O.D.	24" above tubesheet
25	31	<20	O.D.	At top of tubesheet
25	32	<20	O.D.	At top of tubesheet
25	38	<20	O.D.	At top of tubesheet
25	52	<20	O.D.	1" above tubesheet
25	57	<20	O.D.	1/2" above tubesheet
25	62	<20	O.D.	1/2" above tubesheet
25	65	<20	O.D.	30" above tubesheet
26	27	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

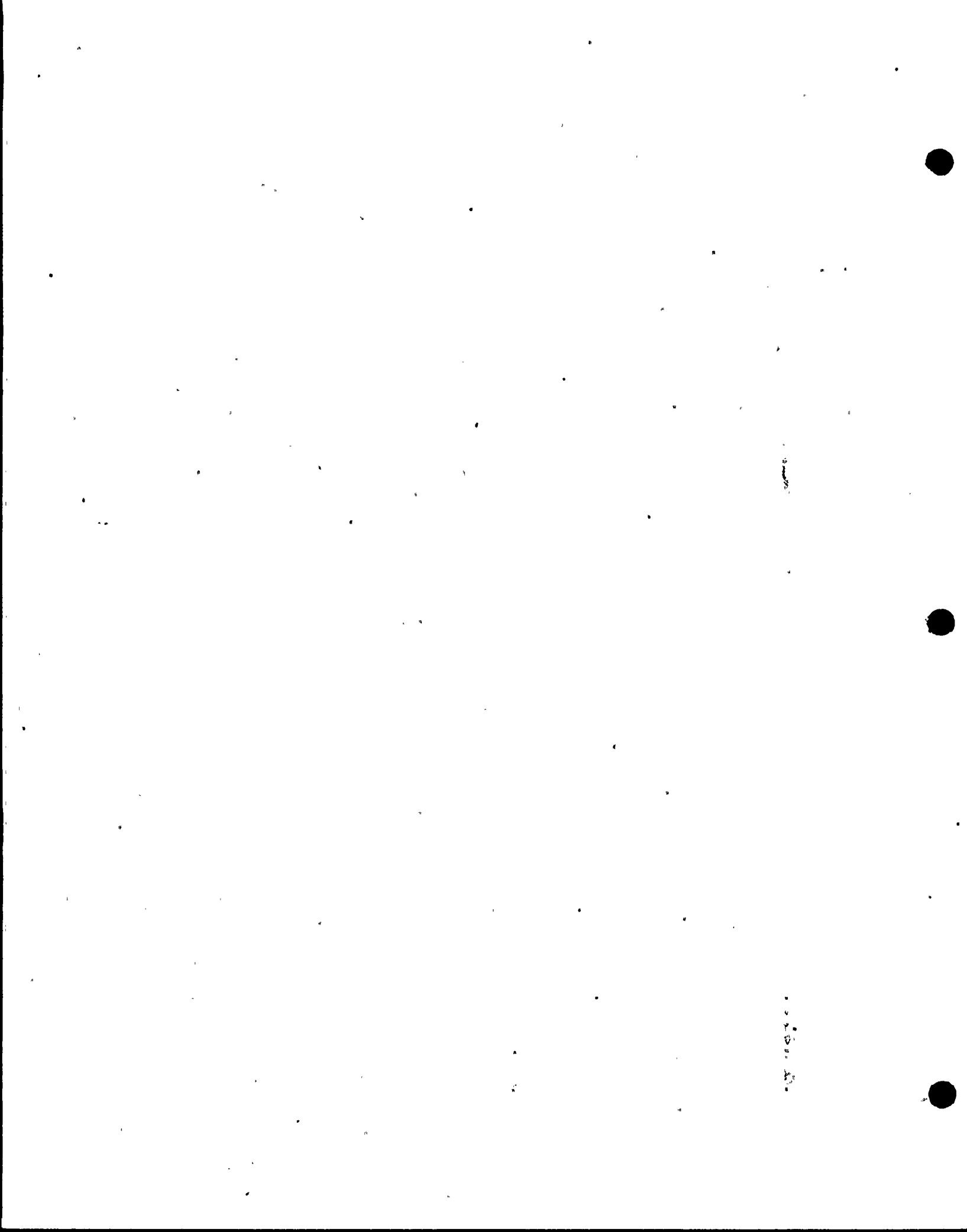
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
26	31	<20	O.D.	1/2" above tubesheet
26	32	<20	O.D.	1/2" above tubesheet
26	36	<20	O.D.	1/2" above tubesheet
26	37	<20	O.D.	1/2" above tubesheet
26	38	<20	O.D.	1" above tubesheet
26	39	<20	O.D.	At top of tubesheet
26	42	<20	O.D.	1/2" above tubesheet
26	57	<20	O.D.	1" above tubesheet
26	58	<20	O.D.	1" above tubesheet
27	32	<20	O.D.	1/2" above tubesheet
27	33	<20	O.D.	1/2" above tubesheet
27	41	<20	O.D.	1/2" above tubesheet
28	42	<20	O.D.	1" above tubesheet
28	47	<20	O.D.	15" above tubesheet
29	37	<20	O.D.	1/2" above tubesheet
29	38	<20	O.D.	At top of tubesheet
29	42	<20	O.D.	1" above tubesheet
29	44	<20	O.D.	1/2" above tubesheet
29	45	<20	O.D.	1/2" above tubesheet
30	38	<20	O.D.	At top of tubesheet
30	39	<20	O.D.	1/2" above tubesheet
30	43	<20	O.D.	1/2" above tubesheet
30	53	<20	O.D.	1/2" above tubesheet
30	55	<20	O.D.	1/2" above tubesheet
31	40	<20	O.D.	1/2" above tubesheet
31	41	<20	O.D.	1/2" above tubesheet
31	42	<20	O.D.	1/2" above tubesheet
31	43	<20	O.D.	At top of tubesheet
31	50	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

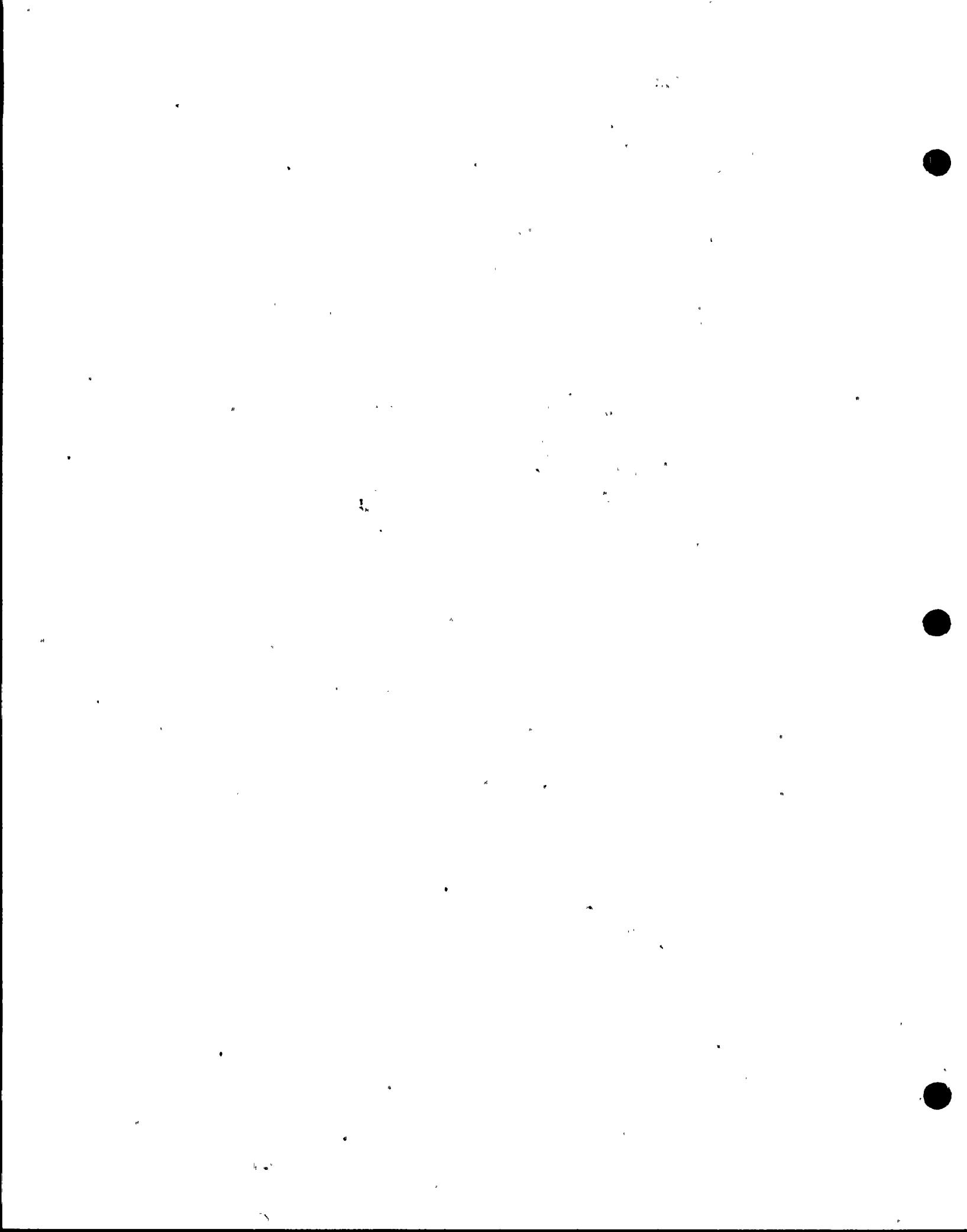
SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 400 KHZ

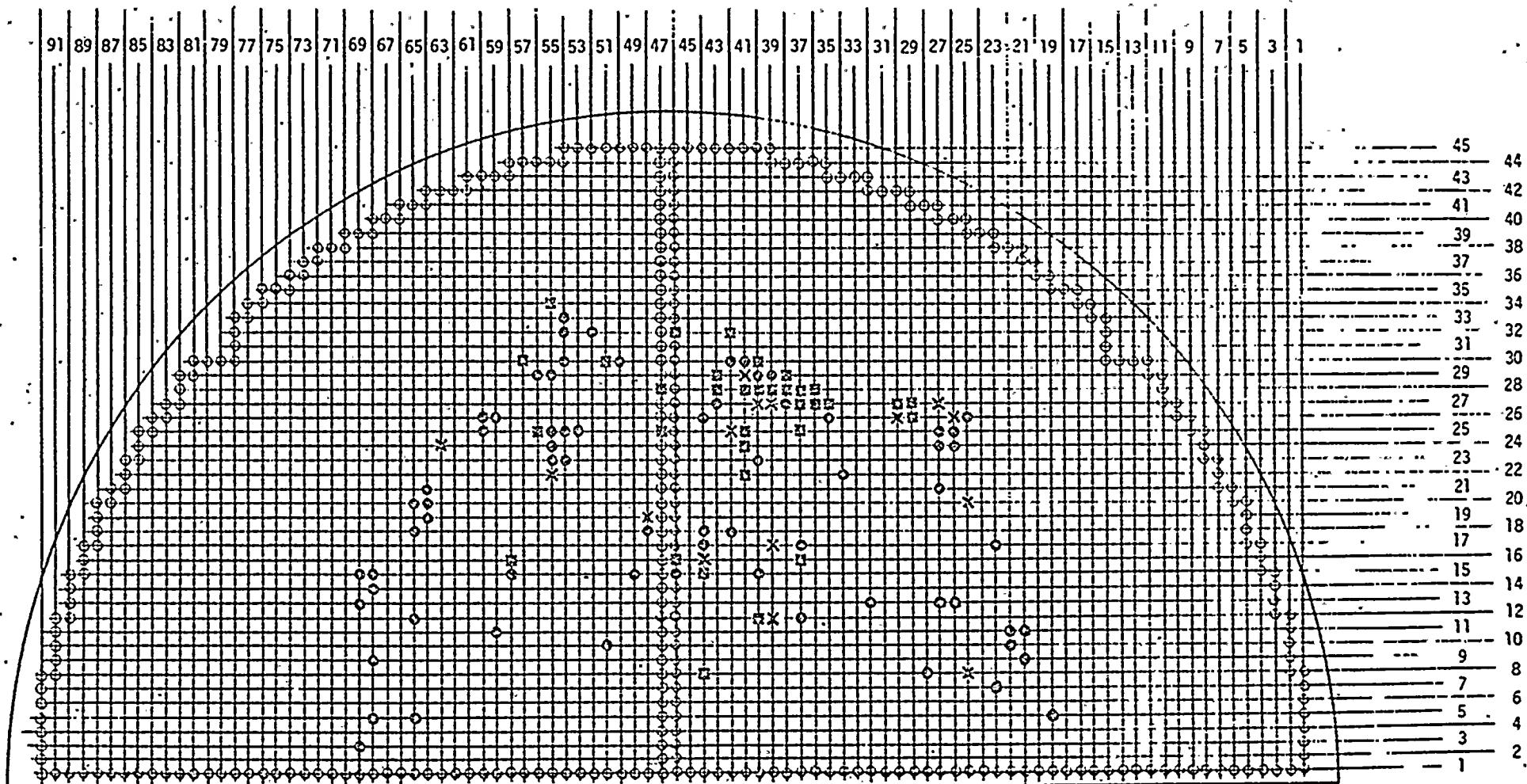
DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
31	51	<20	O.D.	1/2" above tubesheet
31	55	<20	O.D.	1/2" above tubesheet
31	56	<20	O.D.	1/2" above tubesheet
32	41	<20	O.D.	At top of tubesheet
32	43	<20	O.D.	At top of tubesheet
32	53	<20	O.D.	At top of tubesheet
33	42	<20	O.D.	1/2" above tubesheet
33	52	<20	O.D.	1/2" above tubesheet
33	53	<20	O.D.	1/2" above tubesheet
34	54	<20	O.D.	1/2" above tubesheet
35	55	<20	O.D.	1/2" above tubesheet



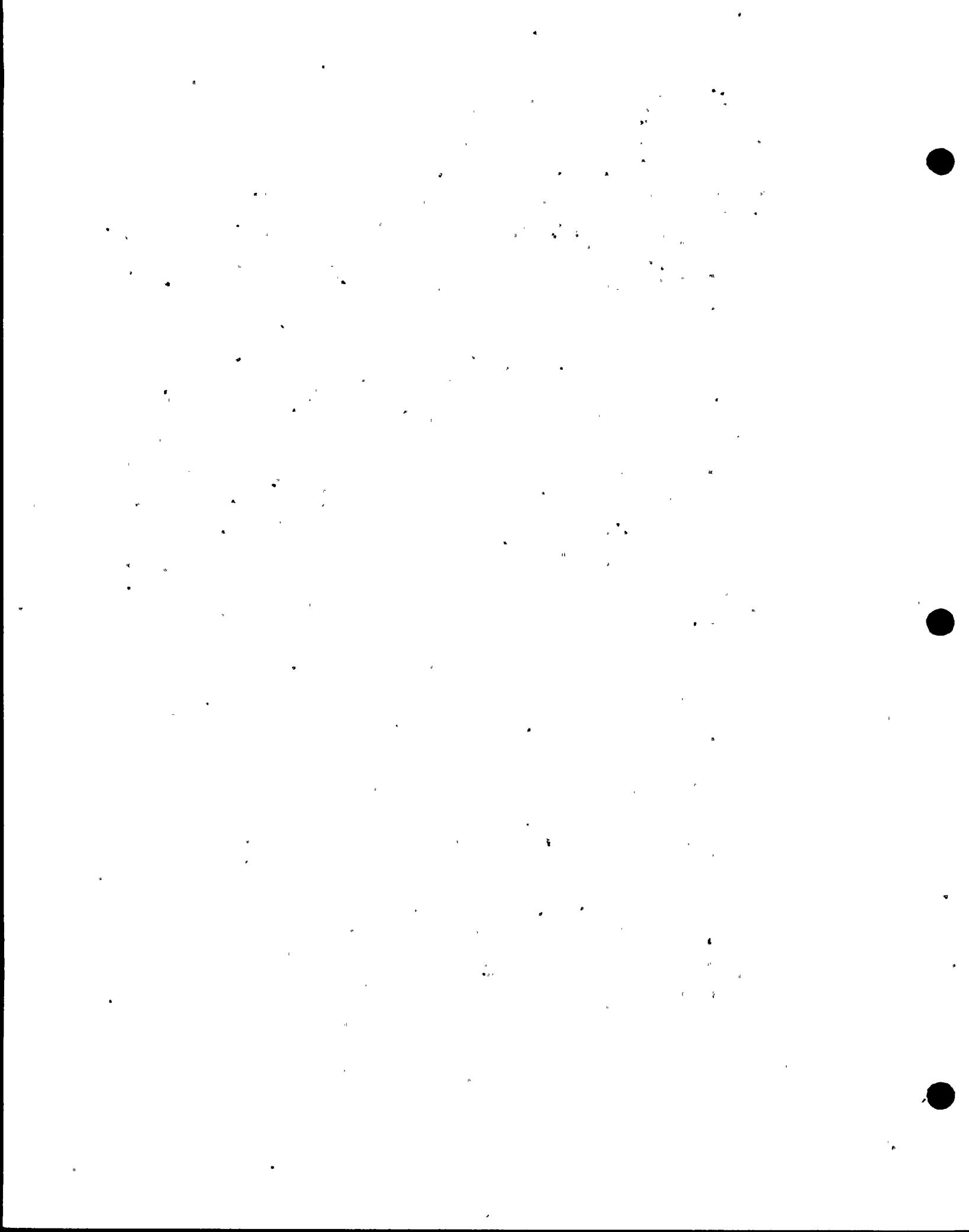
COLUMNS

92, 90, 88, 85, 84, 82, 80, 78, 76, 74, 72, 70, 68, 66, 64, 62, 60, 58, 56, 54, 52, 50, 48, 46, 44, 42, 40, 38, 36, 34, 32, 30, 28, 26, 24, 22, 20, 18, 16, 14, 12, 10, 8, 6, 4, 2



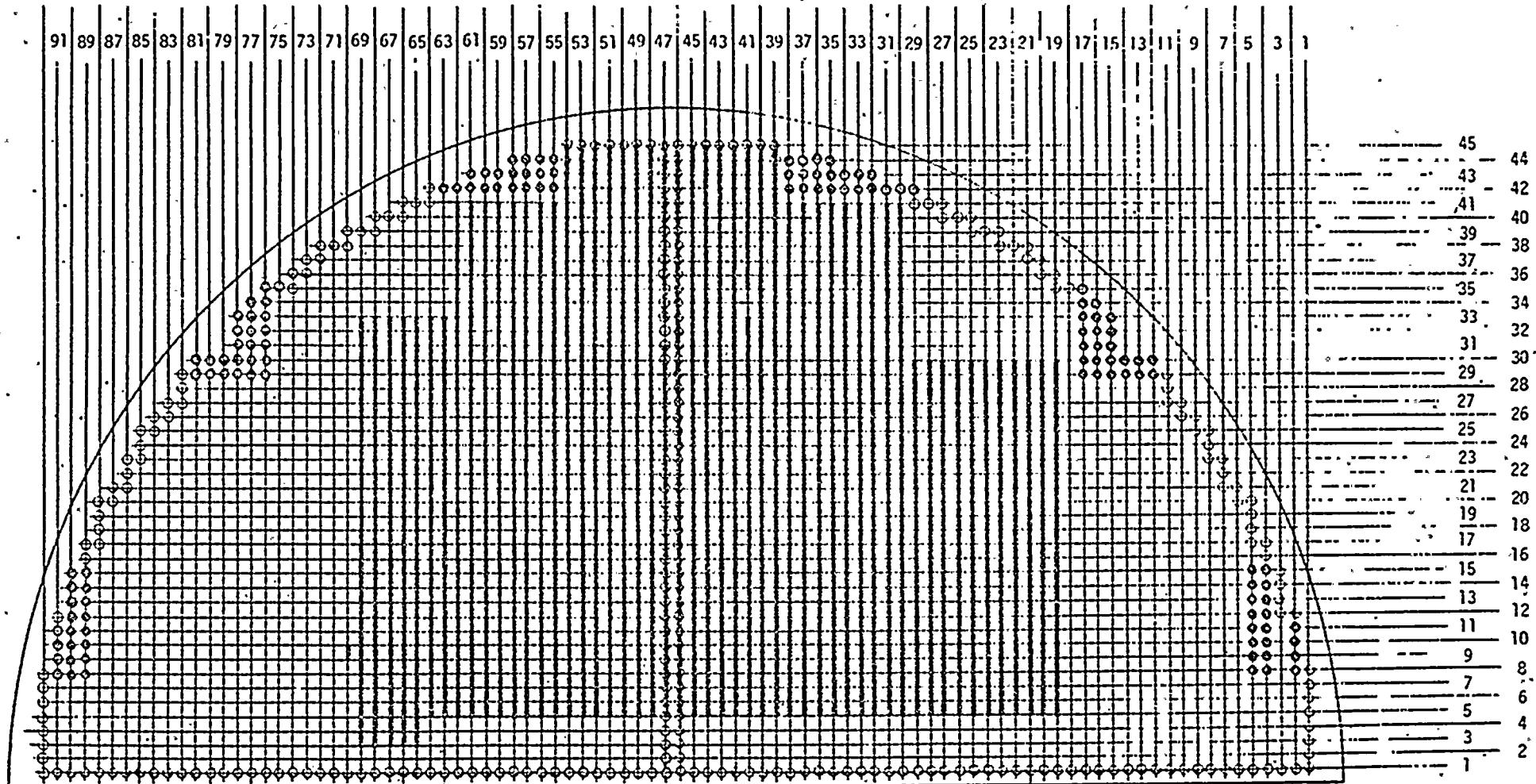
← MANWAY

NOZZLE →



COLUMNS

92 90 88 85 84-82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



← MANWAY

NOZZLE →

A-INLET
 INSPECTED UP TO FIRST SUPPORT.
 ● INSPECTED COMPLETELY AROUND U-BEND
 ○ INSPECTED AS FAR AS POSSIBLE AROUND U-BEND

1
2

EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

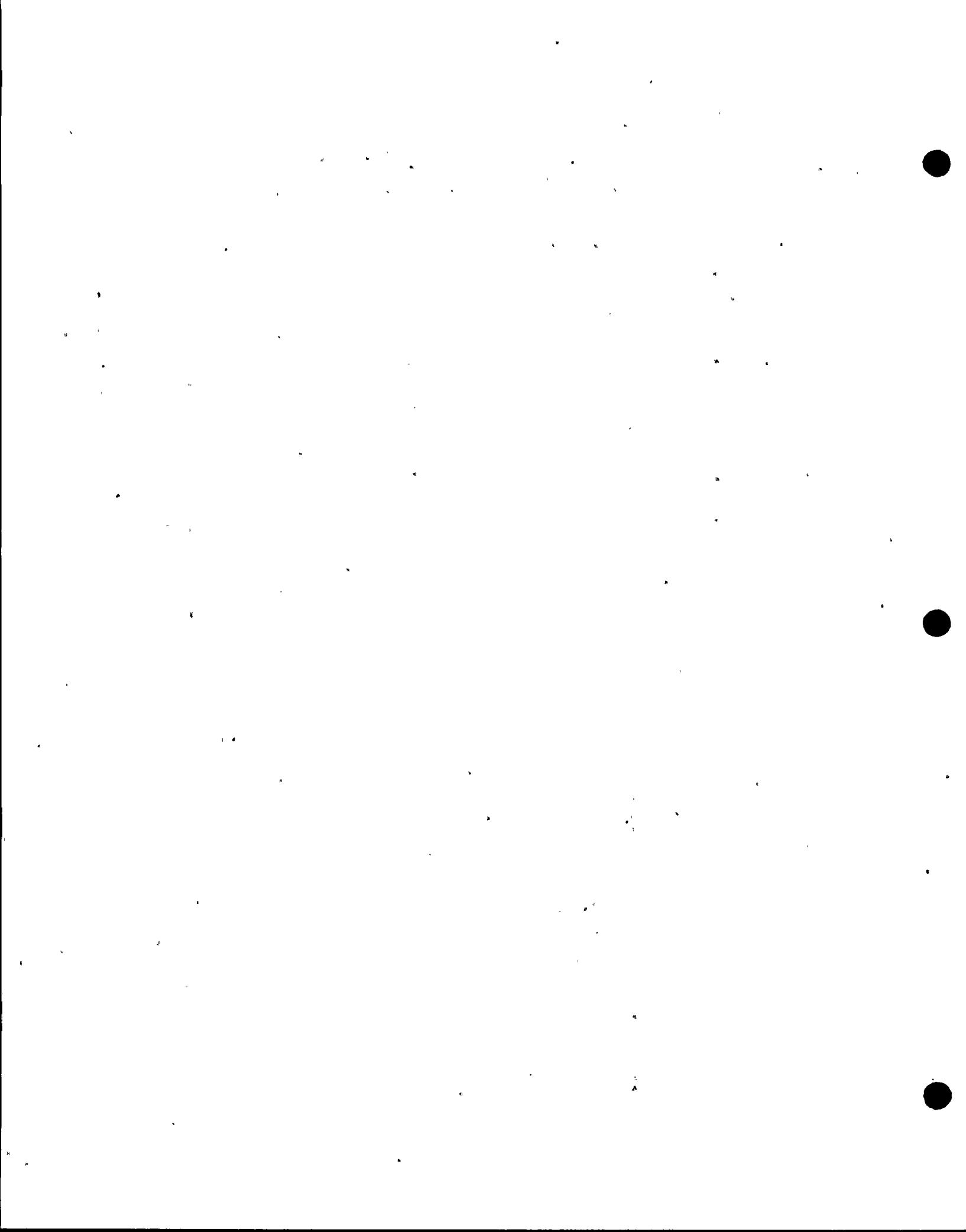
STEAM GENERATOR: A Inlet

TEST FREQUENCY: 25 KHZ

DATE: August 1974

CRUD LEVEL MEASUREMENTS
PRE AND POST LANCING

ROW	COL	HEIGHT		ROW	COL	HEIGHT	
		PRE	POST			PRE	POST
8	12	0		8	58	1/2"	
8	14	0		8	60	1/4"	
8	16	0		8	62	1"	
8	18	1/2"		8	64	1/2"	
8	20	1/2"		8	66	1/2"	
8	22	1"					
8	24	1"					
8	26	1/2"					
8	28	1/2"					
8	30	0					
8	32	0					
8	34	0					
8	36	0					
8	38	0					
8	40	0					
8	42	0					
8	44	1/2"					
8	46	1/2"					
8	48	0					
8	50	0					
8	52	0					
8	54	0					
8	56	0					



EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 25 KHZ

DATE: August 1974

CRUD LEVEL MEASUREMENTS
PRE AND POST LANCING

ROW	COL	HEIGHT		ROW	COL	HEIGHT	
		PRE	POST			PRE	POST
14	12	0		21	12	0	
14	14	0		21	14	0	
14	16	0		21	16	0	
14	18	0		21	18	0	
14	20	0		21	20	0	
14	22	1"		21	22	0	
14	24	1/2"		21	24	1/2"	
14	26	1"		21	26	1/2"	
14	28	1"		21	28	1"	
14	30	1"		21	30	1/2"	
14	32	3"		21	32	1/2"	
14	34	3"		21	34	1/2"	
14	36	3"		21	36	1/2"	
14	38	2-1/2"		21	38	1/2"	
14	40	2"		21	40	1"	
14	42	2"		21	42	1/2"	
14	44	2-1/2"		21	44	1/2"	
14	46	3"		21	46	1/2"	
14	48	3"		21	48	1"	
14	50	2-1/2"		21	50	2-1/2"	
14	52	1-1/2"		21	52	1"	
14	54	3"		21	54	2-1/2"	
14	56	1-1/2"		21	56	1/2"	
14	58	1-1/2"		21	58	1-1/2"	
14	60	1/2"		21	60	1/2"	
14	62	1-1/2"		21	62	1"	
14	64	1/2"		21	64	1/2"	
14	66	1/2"		21	66	1/2"	

EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

STEAM GENERATOR: A Inlet

TEST FREQUENCY: 25 KHZ

DATE: August 1974

CRUD LEVEL MEASUREMENTS
PRE AND POST LANCING

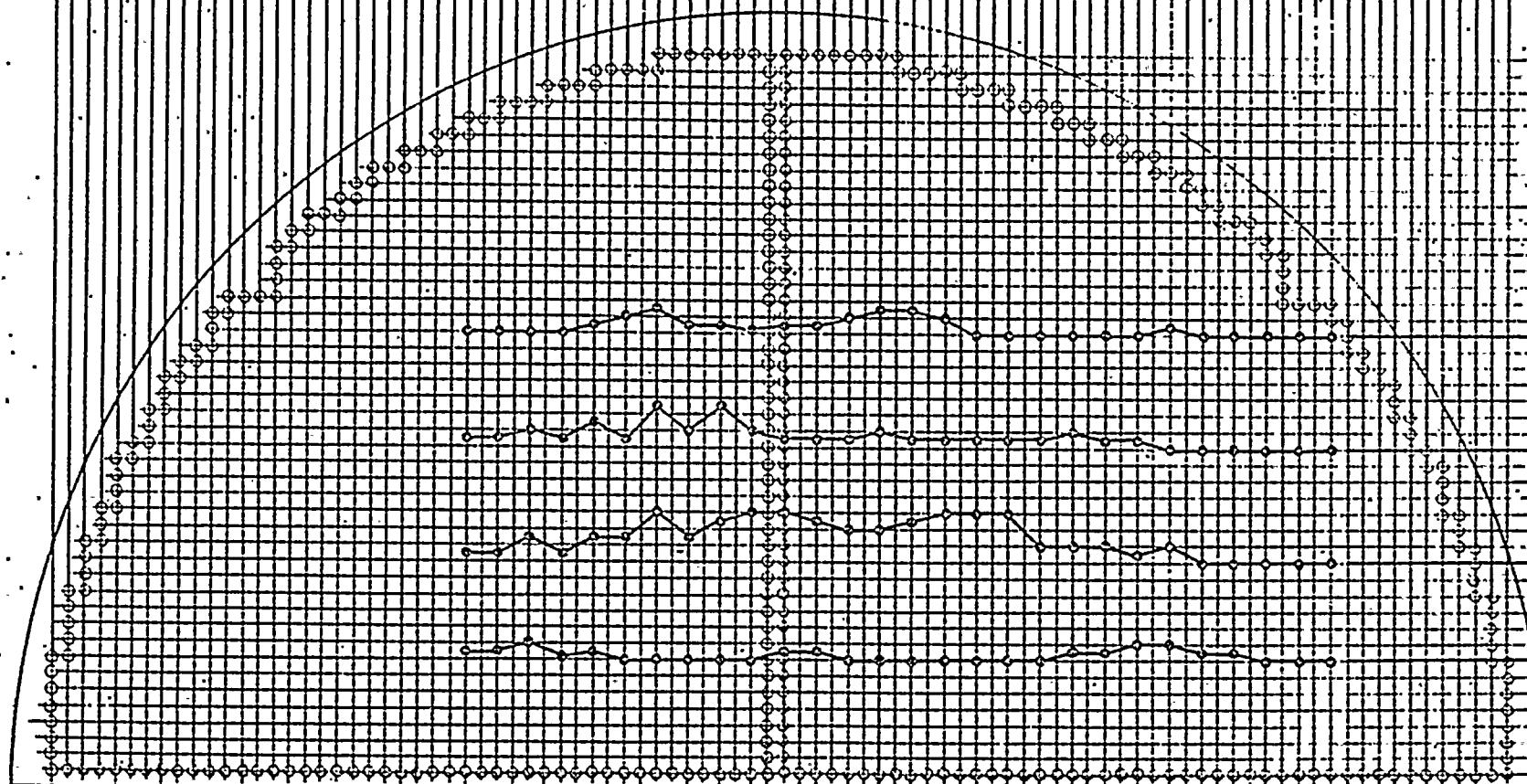
ROW	COL	HEIGHT		ROW	COL	HEIGHT	
		PRE	POST			PRE	POST
28	12	0					
28	14	0					
28	16	0					
28	18	0					
28	20	0					
28	22	1/2"					
28	24	0					
28	26	0					
28	28	0					
28	30	0					
28	32	0					
28	34	0					
28	36	1"					
28	38	1-1/2"					
28	40	1-1/2"					
28	42	1"					
28	44	1/2"					
28	46	1/2"					
28	48	1/4"					
28	50	1/2"					
28	52	1/2"					
28	54	1-1/2"					
28	56	1"					
28	58	1/2"					
28	60	0					
28	62	0					
28	64	0					
28	66	0					

COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

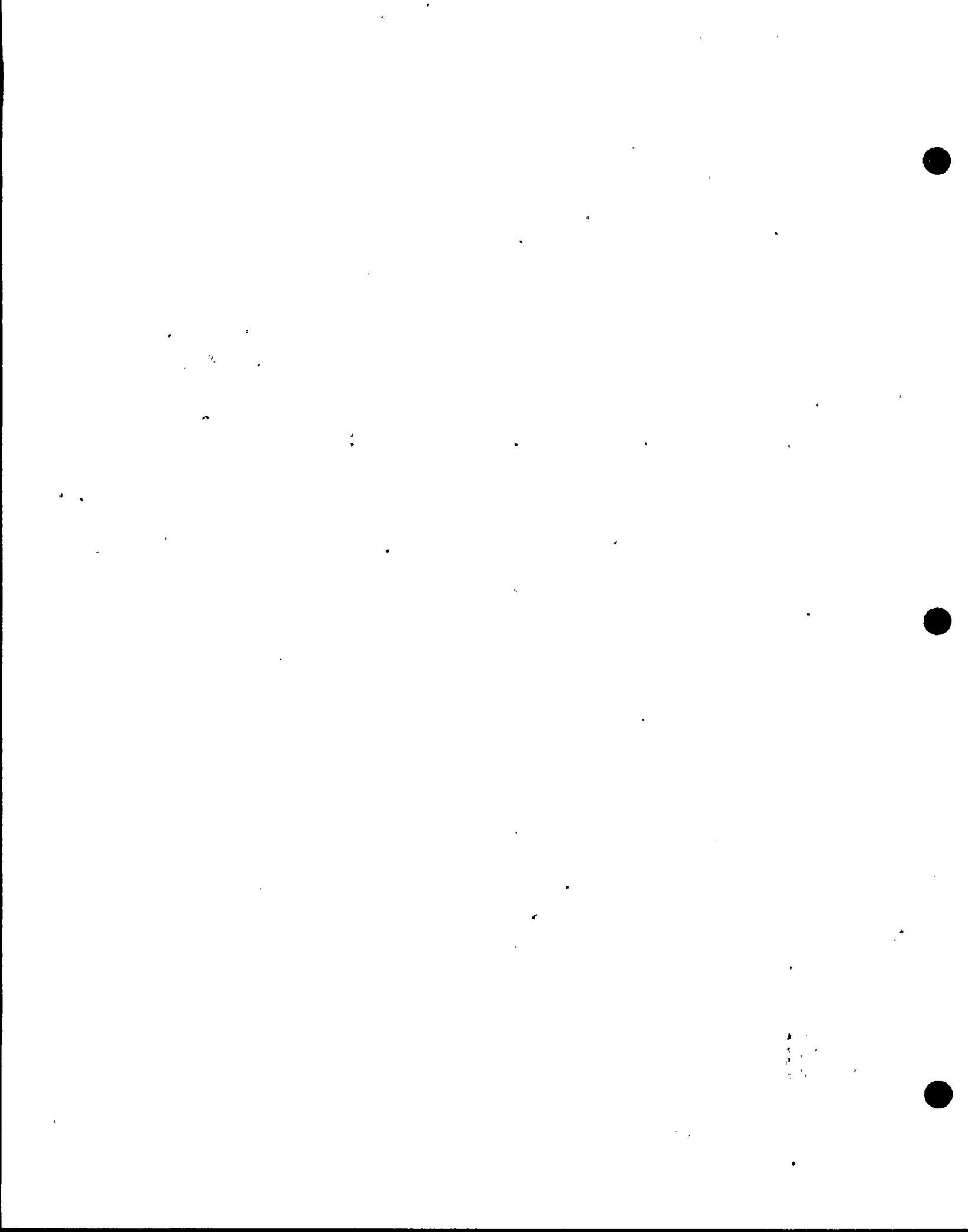
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6
5
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3
2



← MANWAY

A-INLET
CRUD PROFILE PRE-LANCING
□ - 1 INCH

NOZZLE →



EDDY CURRENT TEST RESULTS

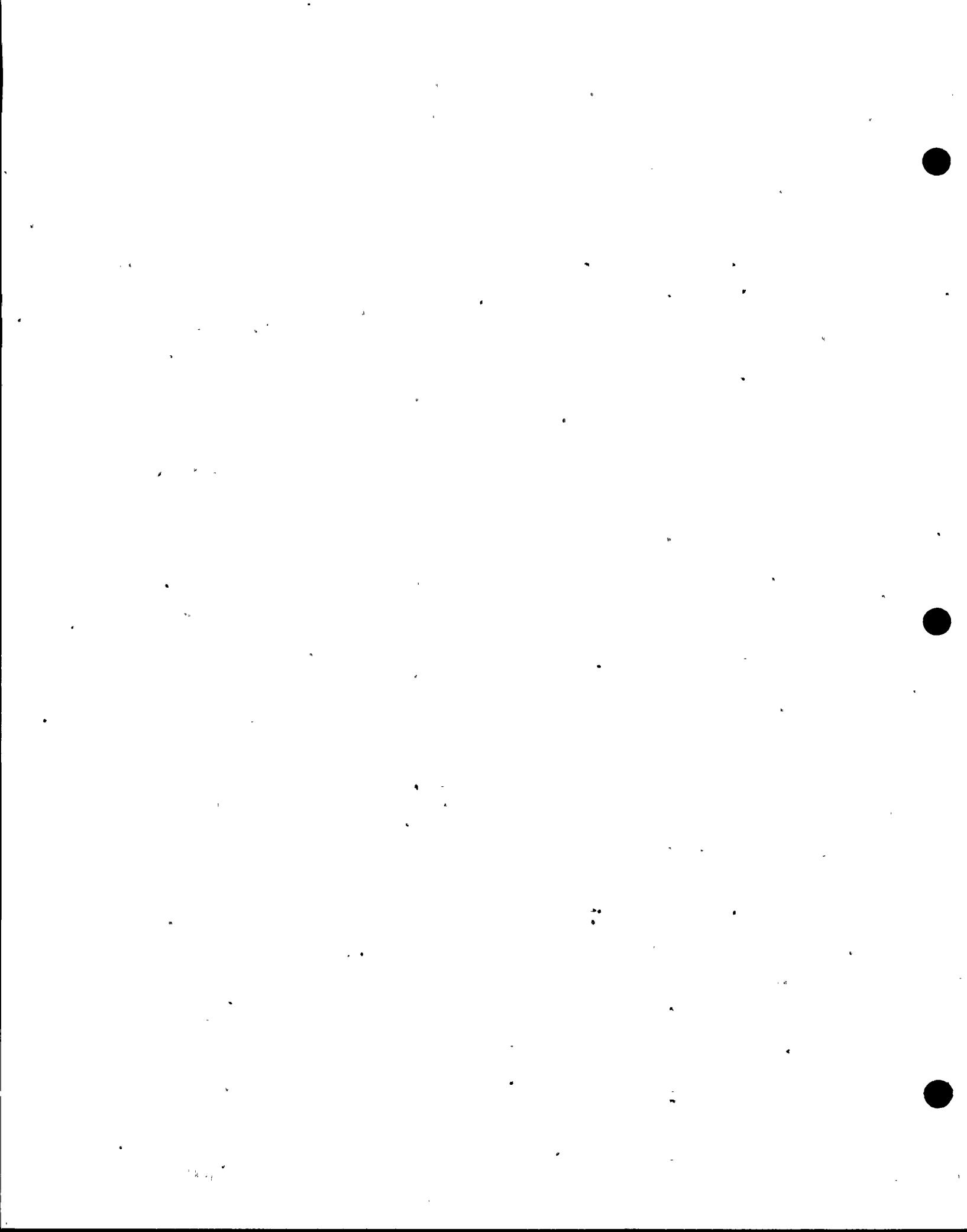
SITE: Turkey Point No. 4

STEAM GENERATOR: A Outlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
20	38	25	O.D.	1/2" above tubesheet
23	46	23	O.D.	1" above tubesheet
24	45	23	O.D.	1/2" above tubesheet
24	46	23	O.D.	1/2" above tubesheet
26	46	23	O.D.	1/2" above tubesheet
27	46	31	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

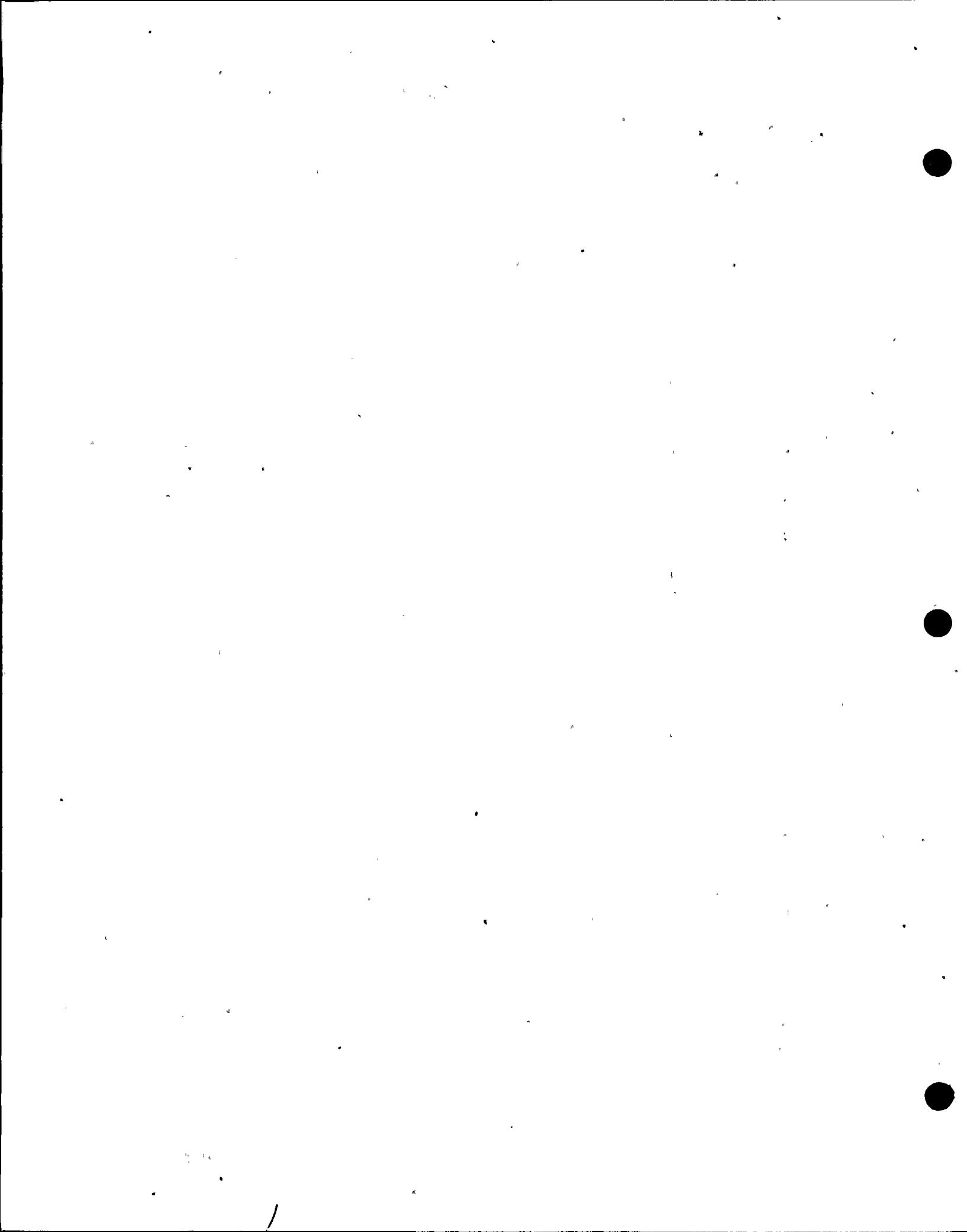
SITE: Turkey Point No. 4

STEAM GENERATOR: A Outlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
13	42	<20	O.D.	1/2" above tubesheet
16	44	<20	O.D.	1/2" above tubesheet
16	46	<20	O.D.	1/2" above tubesheet
17	37	<20	O.D.	1/2" above tubesheet
17	40	<20	O.D.	1/2" above tubesheet
17	43	<20	O.D.	1/2" above tubesheet
17	46	<20	O.D.	1/2" above tubesheet
18	37	<20	O.D.	1/2" above tubesheet
19	37	<20	O.D.	1/2" above tubesheet
19	38	<20	O.D.	1/2" above tubesheet
19	39	<20	O.D.	1/2" above tubesheet
19	40	<20	O.D.	1/2" above tubesheet
19	41	<20	O.D.	1/2" above tubesheet
19	43	<20	O.D.	1/2" above tubesheet
19	44	<20	O.D.	1/2" above tubesheet
20	37	<20	O.D.	1/2" above tubesheet
20	40	<20	O.D.	1/2" above tubesheet
20	41	<20	O.D.	1/2" above tubesheet
20	42	<20	O.D.	1/2" above tubesheet
20	43	<20	O.D.	1/2" above tubesheet
20	44	<20	O.D.	1/2" above tubesheet
21	37	<20	O.D.	1/2" above tubesheet
21	38	<20	O.D.	1/2" above tubesheet
21	39	<20	O.D.	1/2" above tubesheet
21	40	<20	O.D.	1/2" above tubesheet
21	41	<20	O.D.	1/2" above tubesheet
21	42	<20	O.D.	1/2" above tubesheet
21	43	<20	O.D.	1/2" above tubesheet
22	38	<20	O.D.	1/2" above tubesheet
22	39	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

STEAM GENERATOR: A Outlet

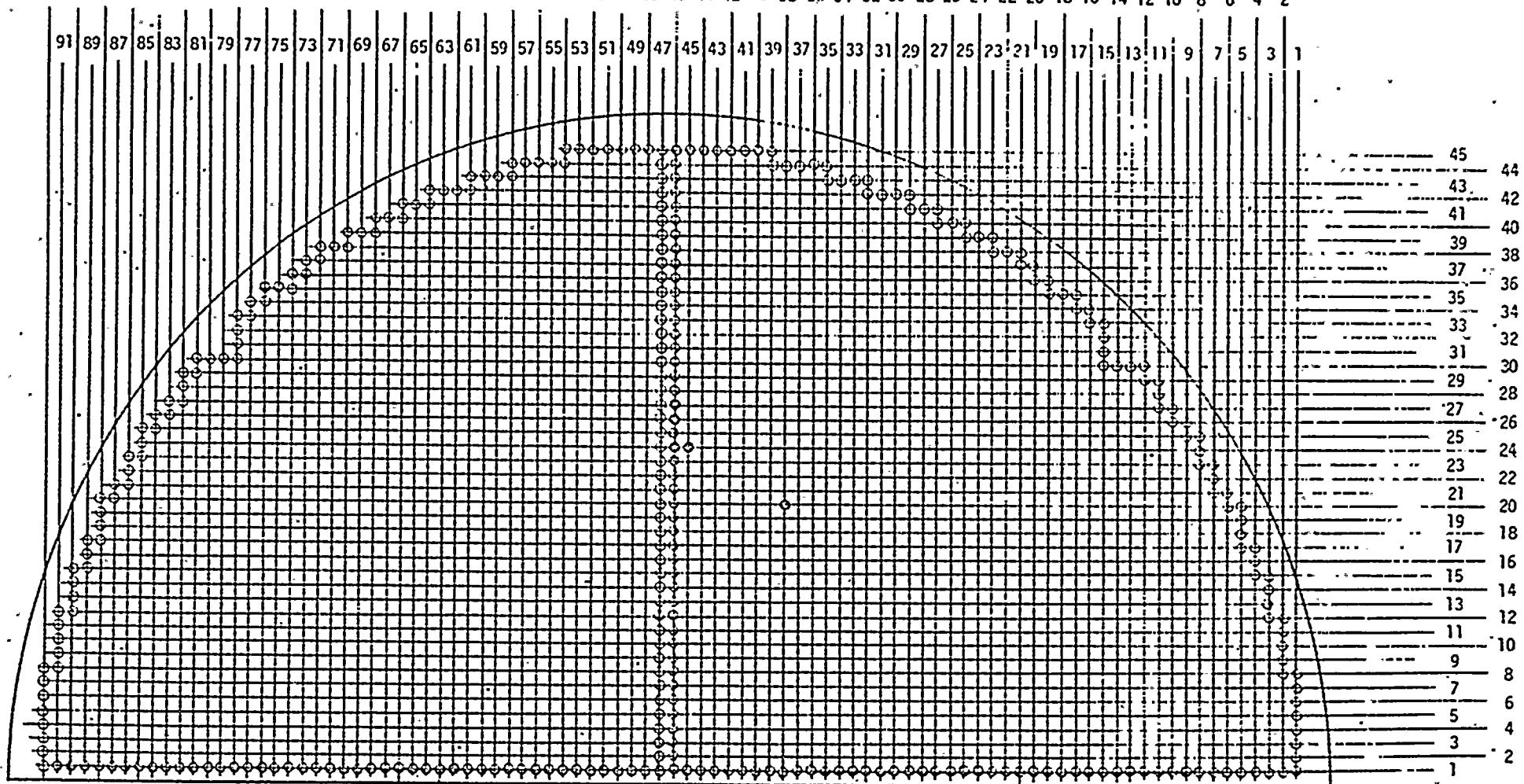
TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
22	40	<20	O.D.	1/2" above tubesheet
22	41	<20	O.D.	1/2" above tubesheet
22	42	<20	O.D.	1/2" above tubesheet
22	43	<20	O.D.	1/2" above tubesheet
22	45	<20	O.D.	1/2" above tubesheet
22	46	<20	O.D.	1/2" above tubesheet
23	40	<20	O.D.	1/2" above tubesheet
23	41	<20	O.D.	1/2" above tubesheet
23	42	<20	O.D.	1/2" above tubesheet
23	43	<20	O.D.	1/2" above tubesheet
23	44	<20	O.D.	1/2" above tubesheet
23	45	<20	O.D.	1/2" above tubesheet
25	46	<20	O.D.	1/2" above tubesheet
28	46	<20	O.D.	1/2" above tubesheet

COLUMNS

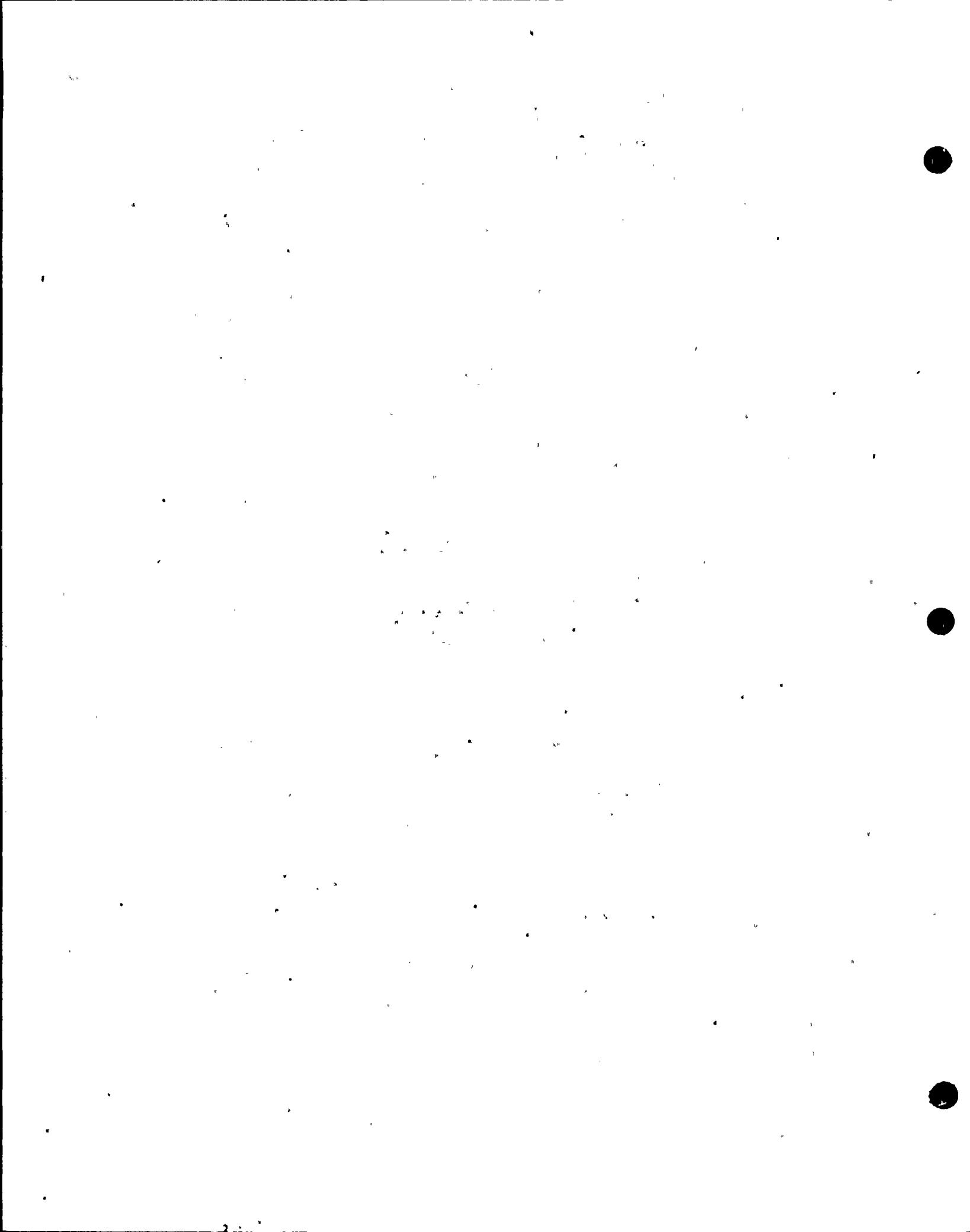
92 90 88 85 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



← MANWAY

NOZZLE →

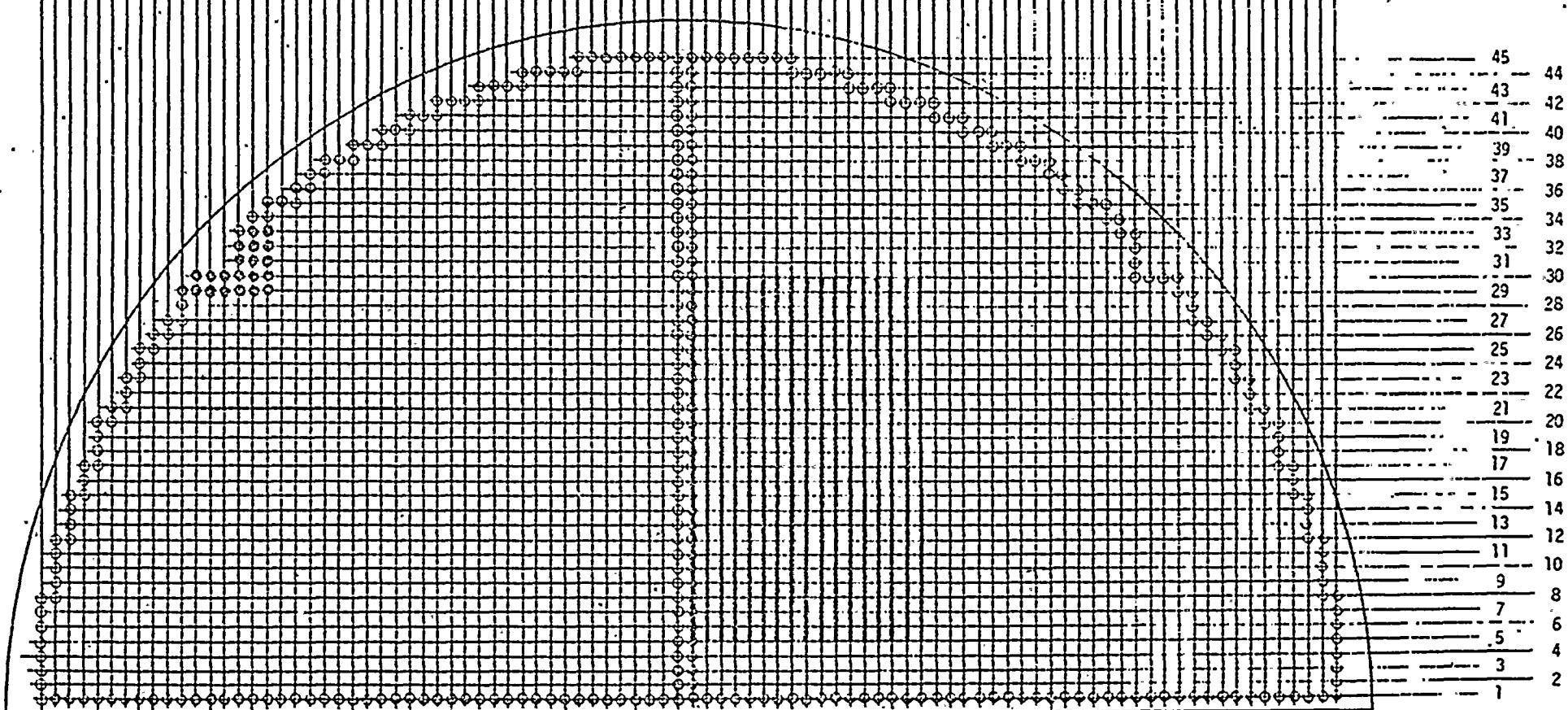
- A-OUTLET
- ◻ ≥50%
 - ✖ 40-49%
 - 21-39%



COLUMNS

92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
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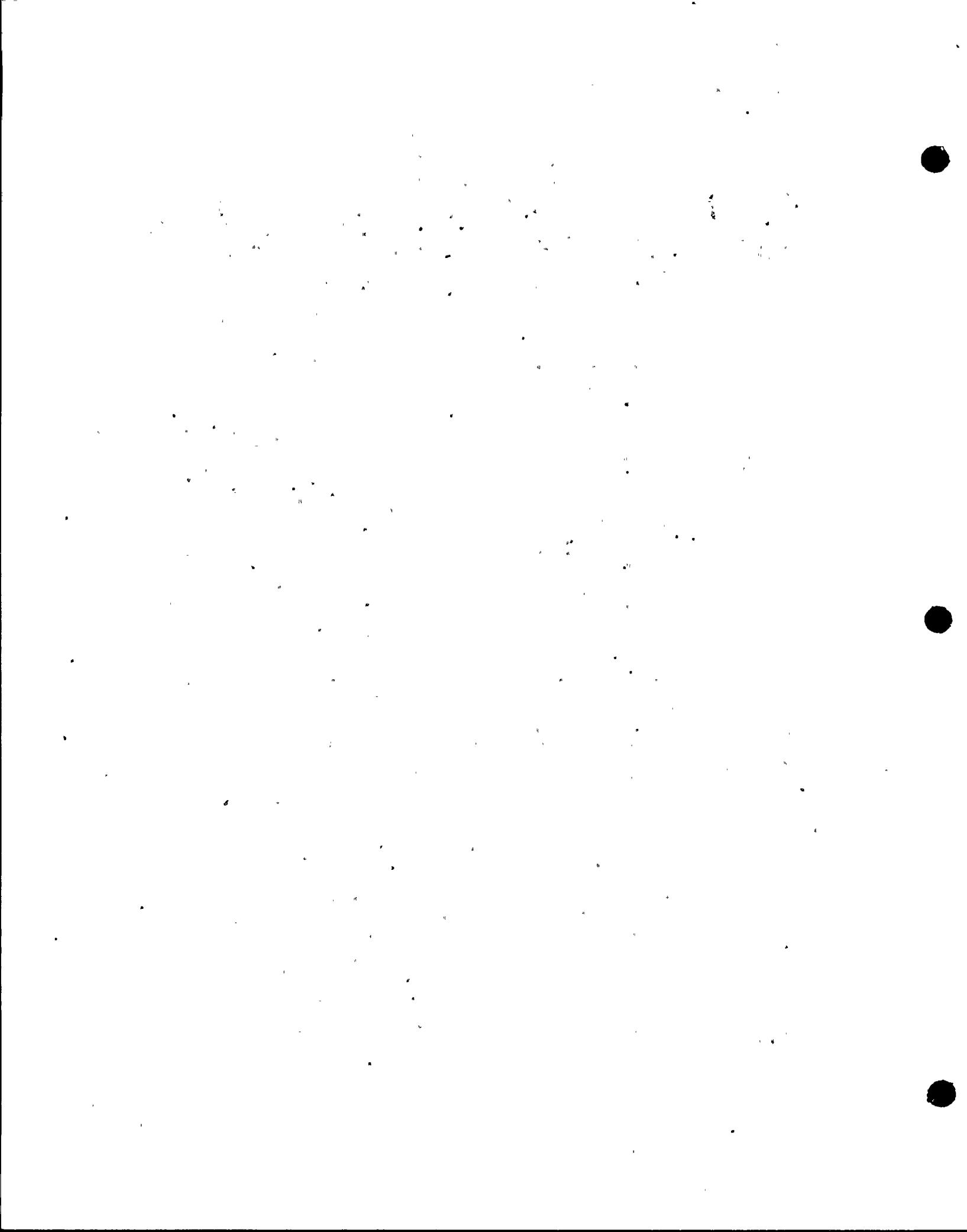
91	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1
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← MANWAY

- A-OUTLET
 INSPECTED TO THE FIRST SUPPORT
 ○ INSPECTED COMPLETELY AROUND U-BEND
 ○ INSPECTED AS FAR AS POSSIBLE AROUND U-BEND

NOZZLE →



EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

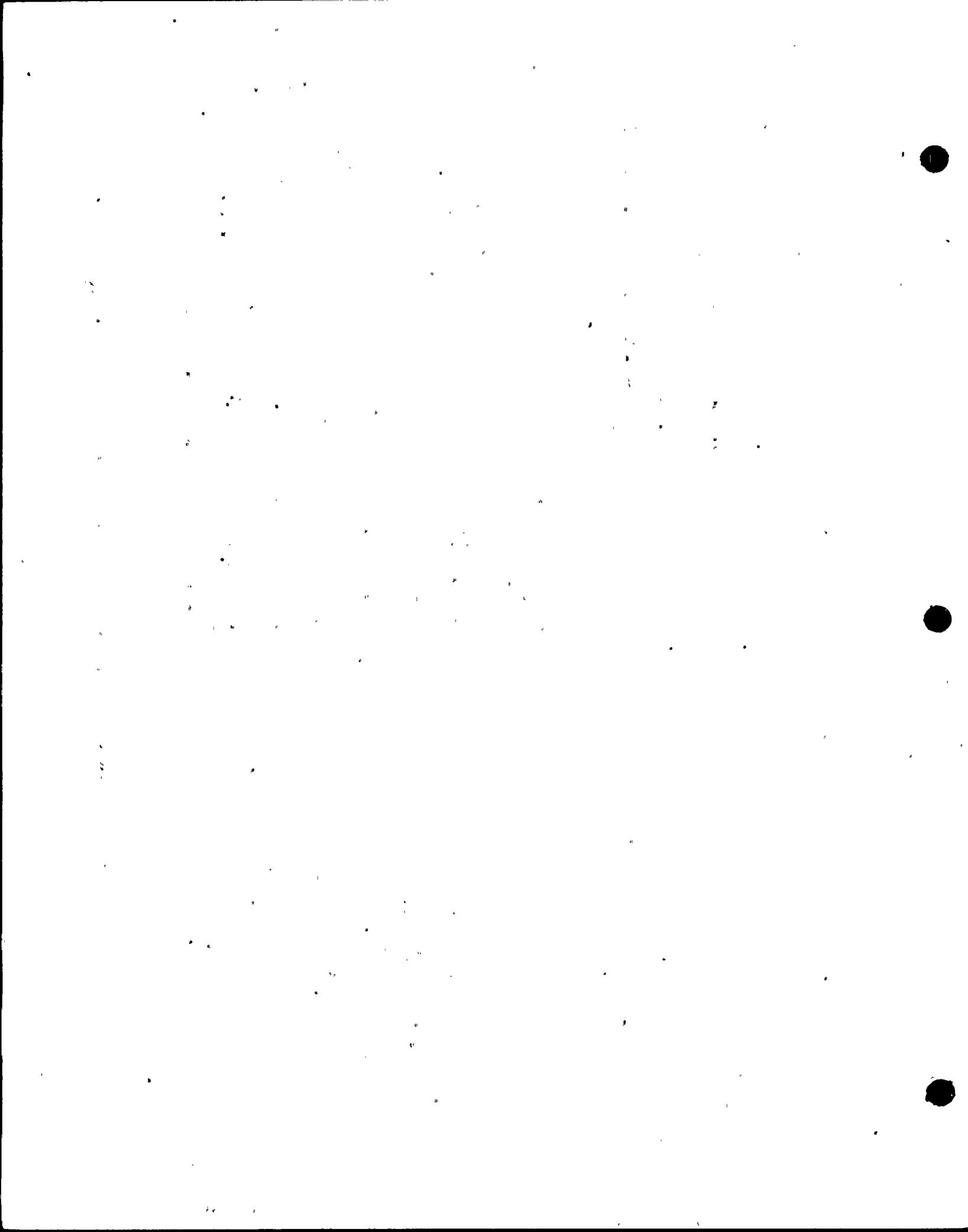
STEAM GENERATOR: A Outlet

TEST FREQUENCY: 25 KHZ

DATE: August 1974

CRUD LEVEL MEASUREMENTS
PRE AND POST LANCING

ROW	COL	HEIGHT		ROW	COL	HEIGHT	
		PRE	POST			PRE	POST
8	20	1-1/2"		14	20	2"	
8	22	2"		14	22	2-1/2"	
8	24	3"		14	24	4"	
8	26	4"		14	26	4-1/2"	
8	28	4"		14	28	4-1/2"	
8	30	4"		14	30	5-1/2"	
8	32	4"		14	32	4"	
8	34	3-1/2"		14	34	3-1/2"	
8	36	3-1/2"		14	36	4"	
8	38	3-1/2"		14	38	4"	
8	40	4-1/2"		14	40	4"	
8	42	5-1/2"		14	42	4"	
8	44	5"		14	44	4-1/2"	
8	46	4-1/2"		14	46	4-1/2"	
8	54	4-1/2"		14	54	3"	
8	56	3-1/2"		14	56	3"	
8	58	3"		14	58	3"	
8	60	3"		14	60	3-1/2"	
8	62	3"		14	62	3"	
8	64	3"		14	64	3-1/2"	
8	66	3-1/2"		14	66	3-1/2"	
8	68	4"		14	68	3-1/2"	
8	70	4"		14	70	3"	
8	72	3"		14	72	1-1/2"	
8	74	2"		14	74	1"	
8	76	1"		14	76	0	
8	78	0		14	78	0	
8	80	0		14	80	0	



EDDY CURRENT TEST RESULTS

SITE: Turkey Point No. 4

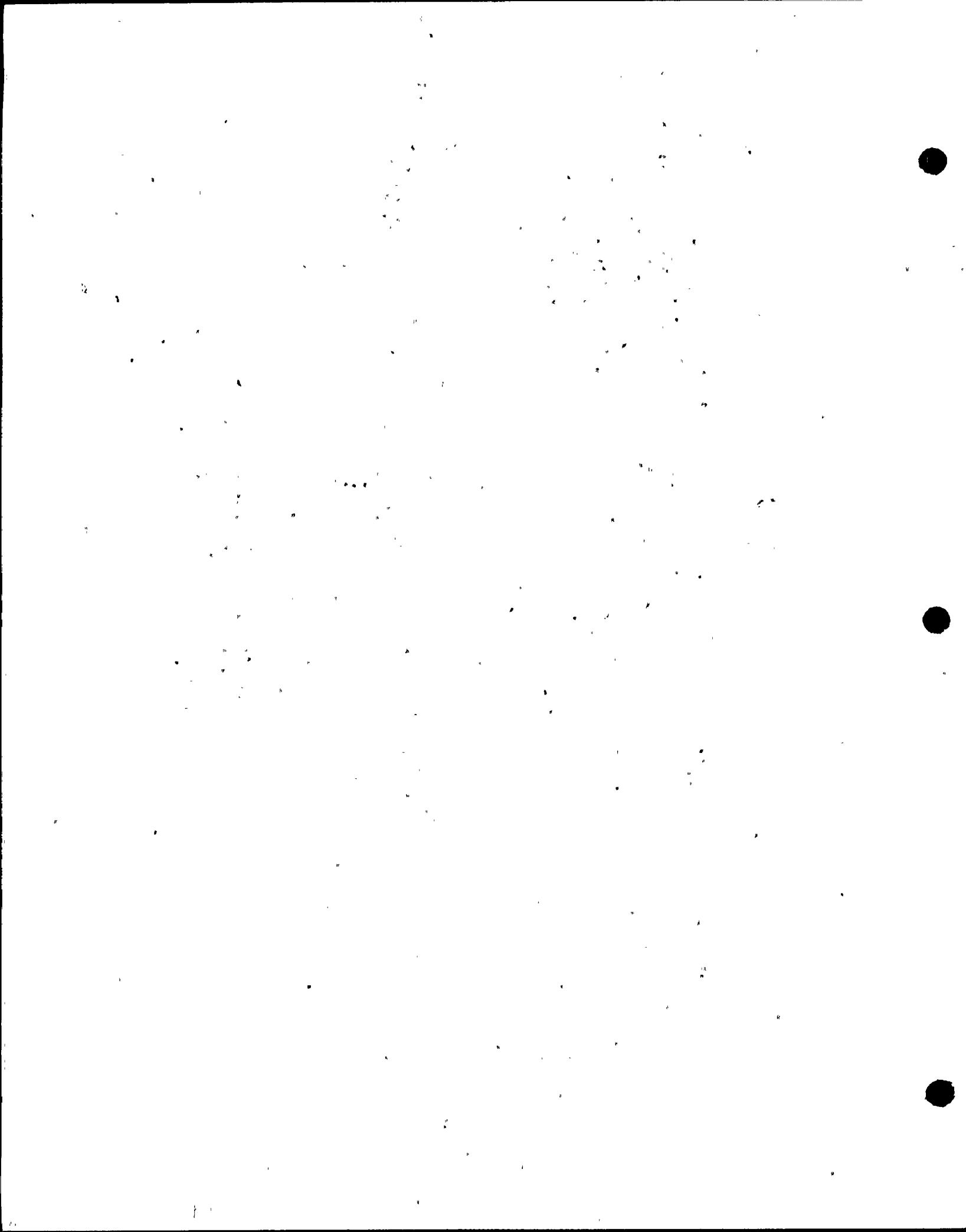
STEAM GENERATOR: A Outlet

TEST FREQUENCY: 25 KHZ

DATE: August 1974

CRUD LEVEL MEASUREMENTS
PRE AND POST LANCING

ROW	COL	HEIGHT		ROW	COL	HEIGHT	
		PRE	POST			PRE	POST
21	20	1/2"		28	20	0	
21	22	1"		28	22	0	
21	24	2"		28	24	0	
21	26	3"		28	26	1/2"	
21	28	4"		28	28	1/2"	
21	30	4-1/2"		28	30	1/2"	
21	32	4"		28	32	1"	
21	34	3-1/2"		28	34	1"	
21	36	3-1/2"		28	36	1"	
21	38	3"		28	38	1/2"	
21	40	3-1/2"		28	40	1/2"	
21	42	3"		28	42	1"	
21	44	4"		28	44	1-1/2"	
21	46	3-1/2"		28	46	2"	
21	54	3"		28	54	1"	
21	56	2-1/2"		28	56	1"	
21	58	3"		28	58	1/2"	
21	60	3"		28	60	0	
21	62	2-1/2"		28	62	0	
21	64	2-1/2"		28	64	0	
21	66	2"		28	66	0	
21	68	1-1/2"		28	68	0	
21	70	1-1/2"		28	70	0	
21	72	0		28	72	0	
21	74	0		28	74	0	
21	76	0		28	76	0	
21	78	0		28	78	0	
21	80	0		28	80	0	

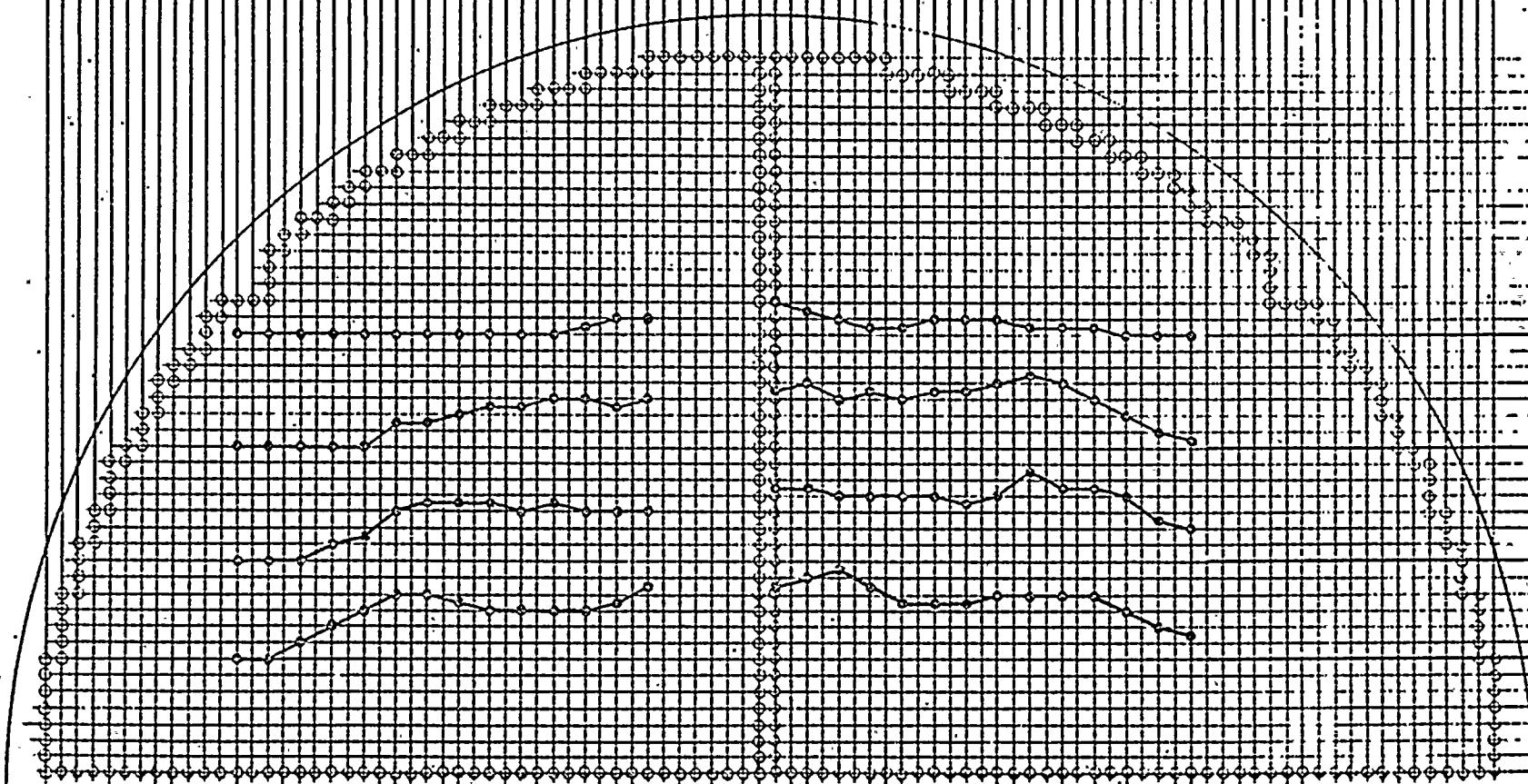


COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

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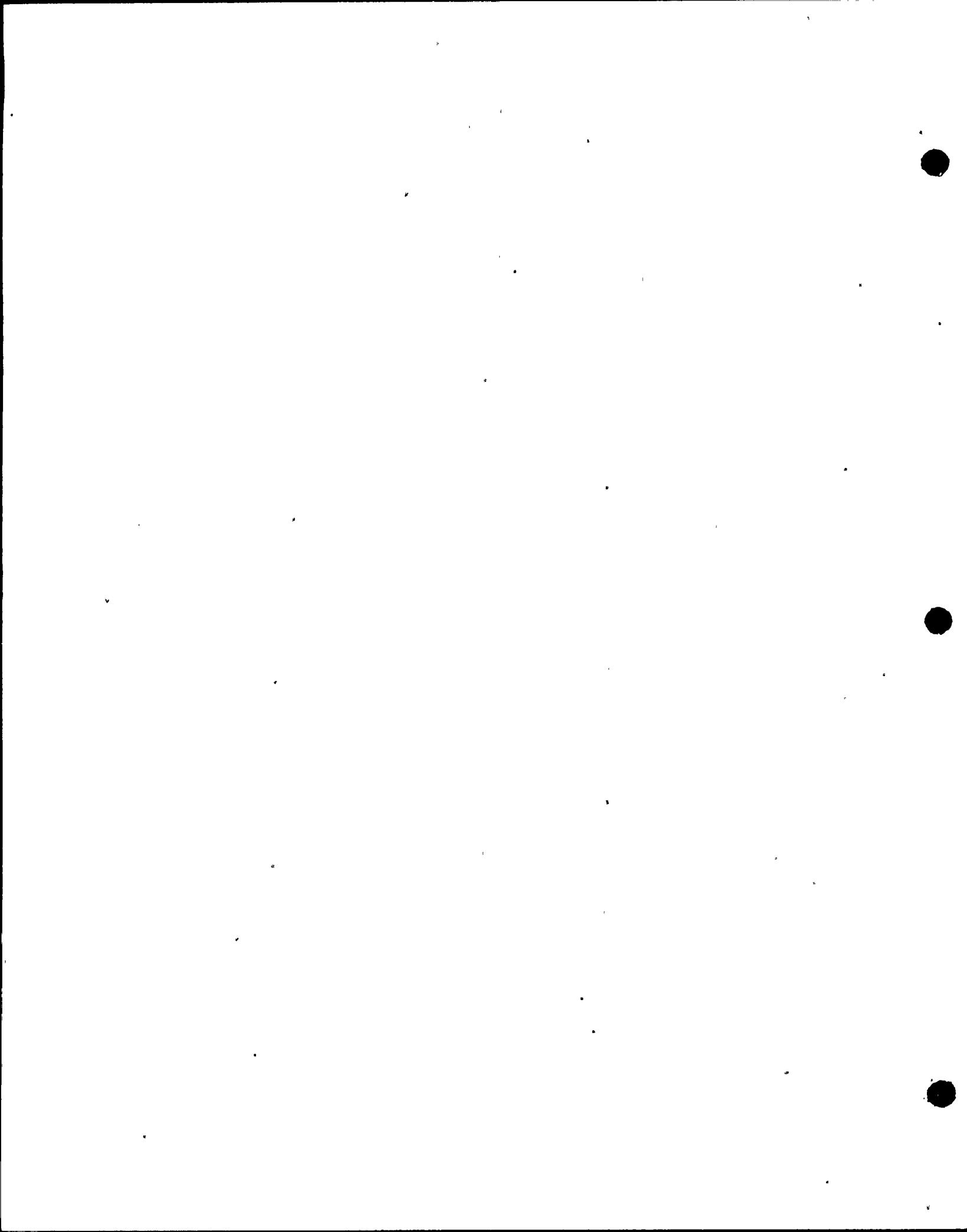


ROWS

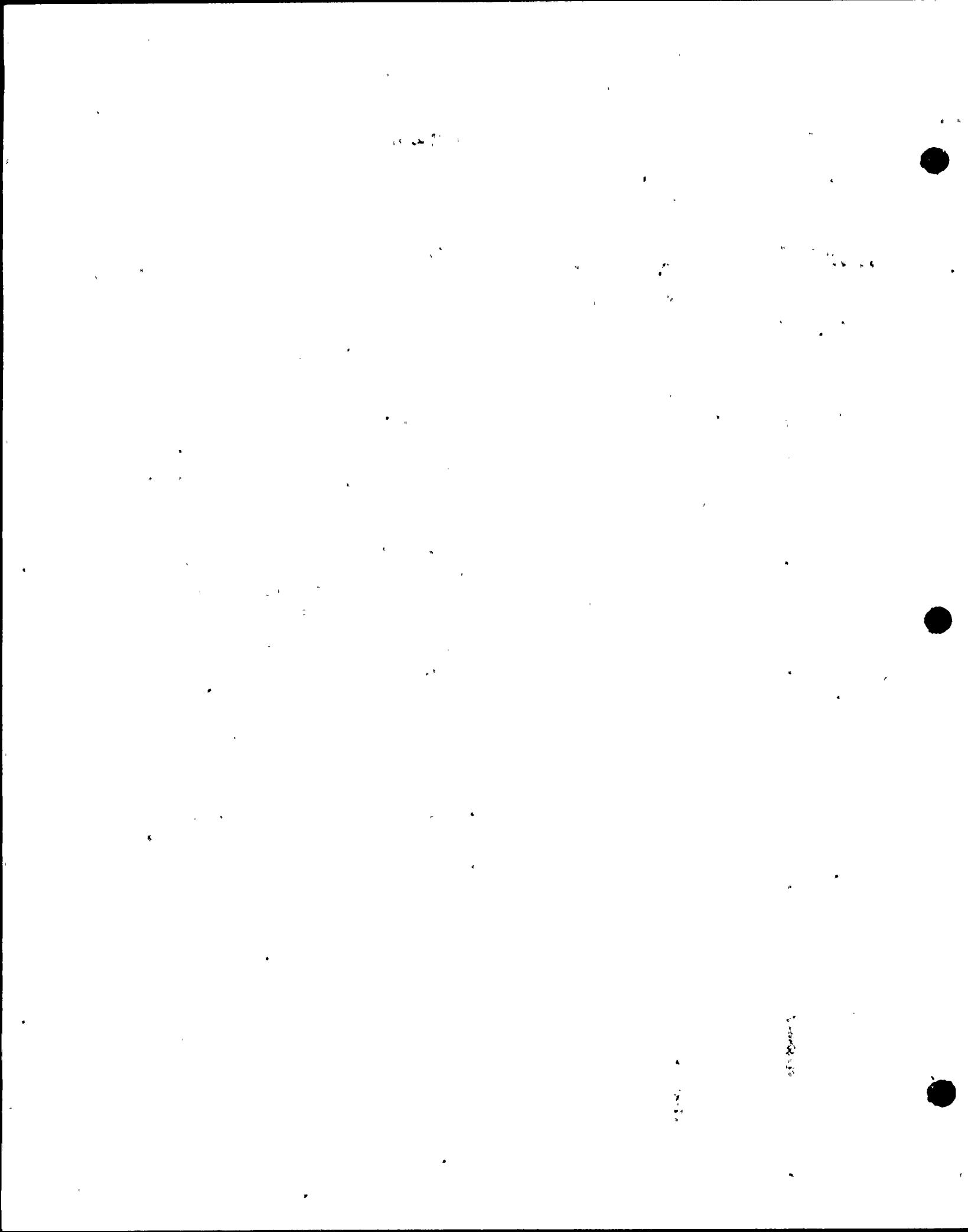
MANWAY

NOZZLE

A-OUTLET,
CRUD PROFILE PRE-LANCING
□ - 1 INCH



APPENDIX D-2



EDDY CURRENT TEST RESULTS

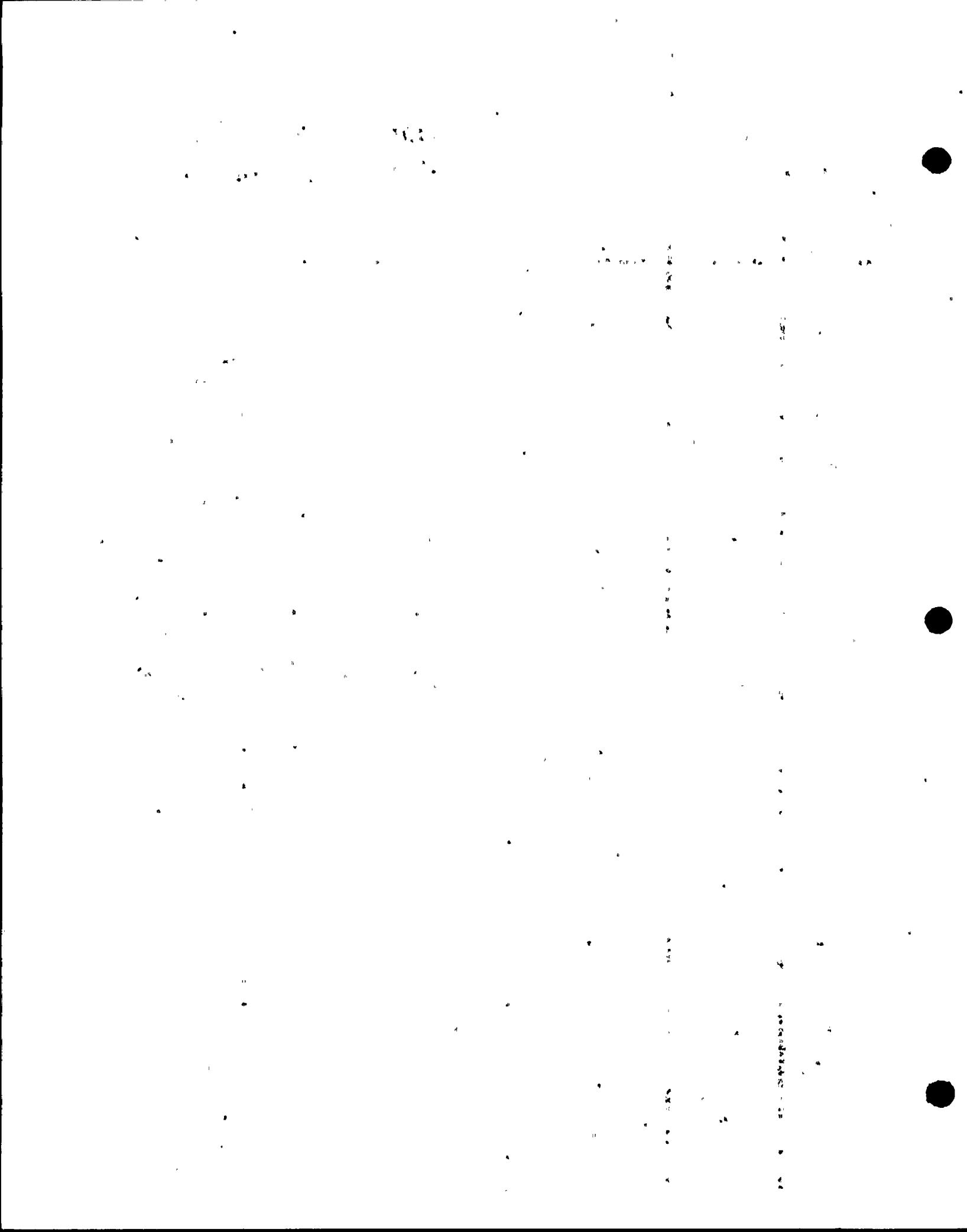
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974.

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
5	71	44	O.D.	1/2" above tubesheet
6	64	50	O.D.	At top of tubesheet
6	65	48	O.D.	1/2" above tubesheet
7	81	46	O.D.	1" above tubesheet
9	30	36	O.D.	At top of tubesheet
9	67	38	O.D.	At top of tubesheet
9	79	42	O.D.	1/2" above tubesheet
9	80	49	O.D.	1/2" above tubesheet
9	82	48	O.D.	1/2" above tubesheet
10	22	28	O.D.	1/2" above tubesheet
10	81	49	O.D.	1/2" above tubesheet
11	23	41	O.D.	1/2" above tubesheet
11	48	76	O.D.	1/2" above tubesheet
11	80	30	O.D.	1/2" above tubesheet
11	81	29	O.D.	1/2" above tubesheet
11	82	46	O.D.	1/2" above tubesheet
12	21	22	O.D.	1/2" above tubesheet
12	22	32	O.D.	1/2" above tubesheet
12	24	27	O.D.	1/2" above tubesheet
12	29	25	O.D.	At top of tubesheet
12	30	26	O.D.	At top of tubesheet
13	75	67	O.D.	1" above tubesheet
		60	O.D.	1/2" above tubesheet
14	26	38	O.D.	1/2" above tubesheet
15	35	21	O.D.	1/2" above tubesheet
15	36	21	O.D.	1/2" above tubesheet
15	40	42	O.D.	1/2" above tubesheet
15	41	38	O.D.	1/2" above tubesheet
16	32	46	O.D.	1" above tubesheet



EDDY CURRENT TEST RESULTS

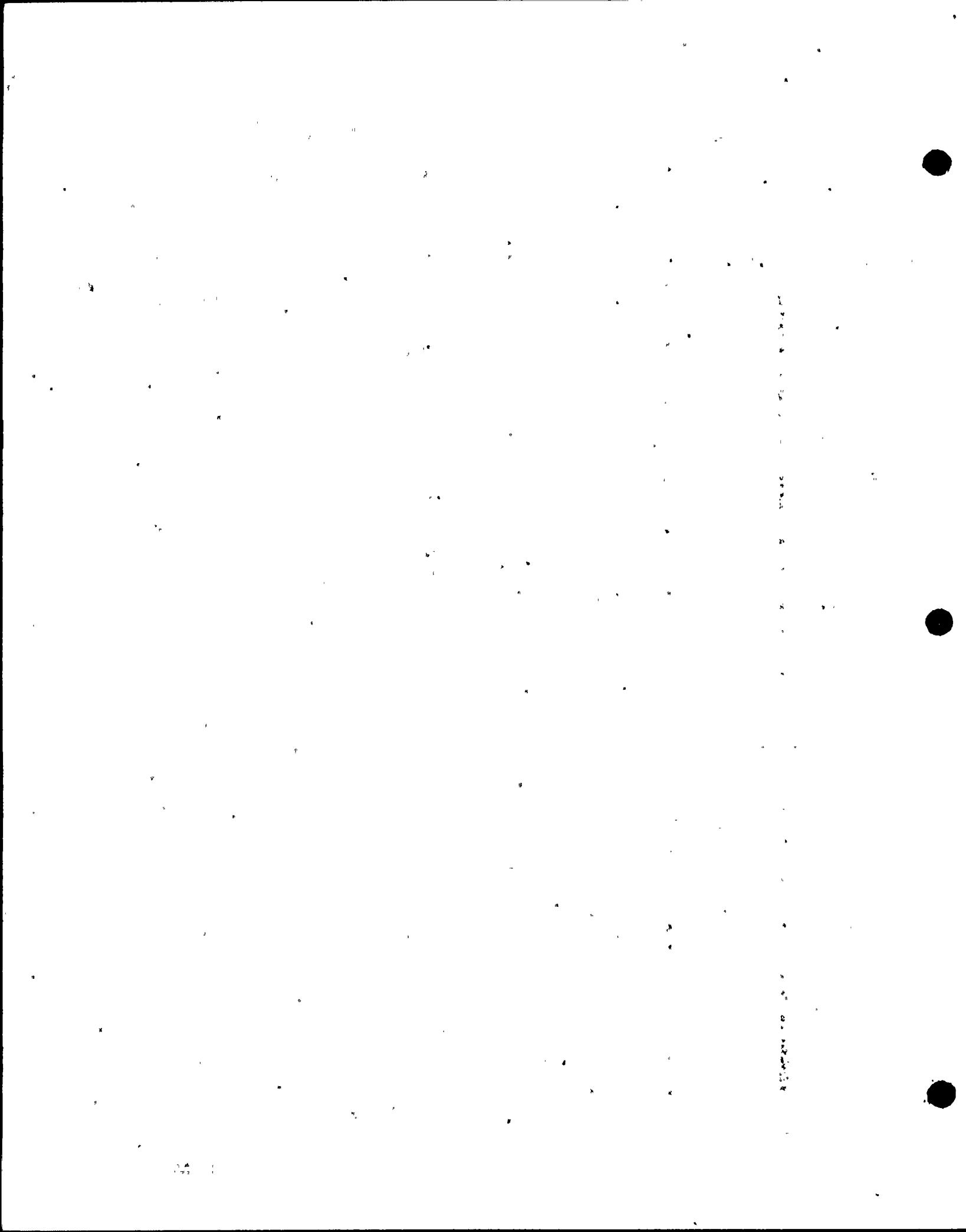
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
16	36	24	O.D.	2" above tubesheet
16	37	40	O.D.	1" above tubesheet
16	38	55	O.D.	1/2" above tubesheet
16	39	44	O.D.	1" above tubesheet
16	39	30	O.D.	1/2" above tubesheet
16	40	21	O.D.	1" above tubesheet
17	34	44	O.D.	1-1/2" above tubesheet
17	35	35	O.D.	1" above tubesheet
17	36	21	O.D.	1" above tubesheet
17	38	30	O.D.	1" above tubesheet
17	39	36	O.D.	2-1/2" above tubesheet
17	68	37	O.D.	1/2" above tubesheet
18	34	23	O.D.	1" above tubesheet
18	36	34	O.D.	2" above tubesheet
18	37	38	O.D.	2-1/2" above tubesheet
18	39	36	O.D.	3" above tubesheet
18	41	23	O.D.	3" above tubesheet
18	45	23	O.D.	2" above tubesheet
18	69	44	O.D.	1/2" above tubesheet
18	70	26	O.D.	1/2" above tubesheet
19	23	37	O.D.	At top of tubesheet
19	36	29	O.D.	1/2" above tubesheet
19	37	38	O.D.	1/2" above tubesheet
19		21	O.D.	1" above tubesheet
19	39	40	O.D.	1/2" above tubesheet
19	41	40	O.D.	1" above tubesheet
19	42	40	O.D.	2" above tubesheet
19	43	38	O.D.	2" above tubesheet
19	44	25	O.D.	3" above tubesheet
19	45	35	O.D.	3" above tubesheet
19	46	32	O.D.	3" above tubesheet



EDDY CURRENT TEST RESULTS

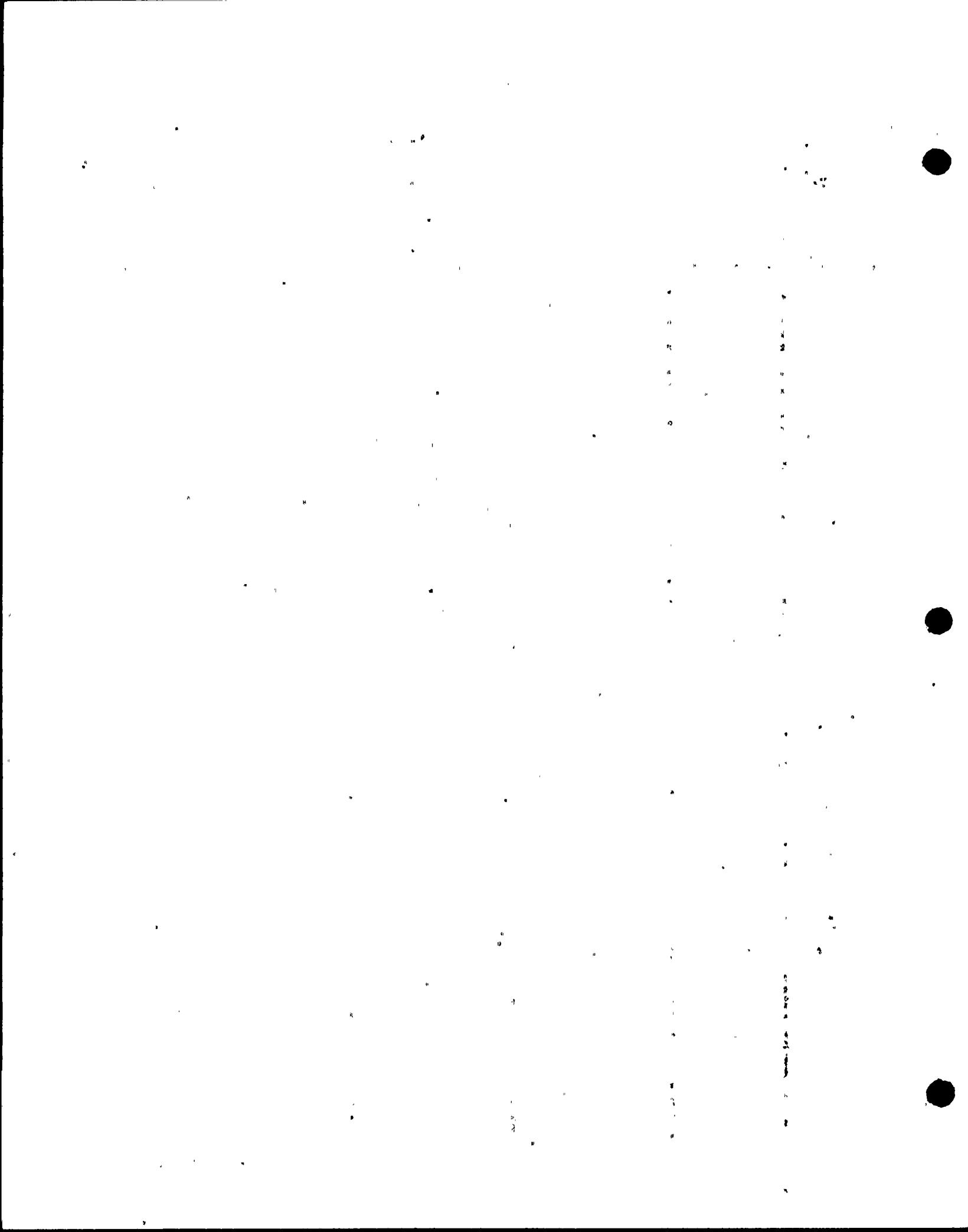
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
19	58	32	O.D.	At top of tubesheet
20	37	29	O.D.	1/2" above tubesheet
20	39	40	O.D.	1/2" above tubesheet
20	43	30	O.D.	1/2" above tubesheet
20	44	33	O.D.	1" above tubesheet
20	49	38	O.D.	2" above tubesheet
20	55	27	O.D.	1/2" above tubesheet
21	38	27	O.D.	1/2" above tubesheet
21	45	26	O.D.	1/2" above tubesheet
22	40	22	O.D.	1/2" above tubesheet
22	45	50	O.D.	At top of tubesheet
22	53	26	O.D.	1" above tubesheet
22		22	O.D.	1/2" above tubesheet
22	55	27	O.D.	1" above tubesheet
24	27	23	O.D.	1/2" above tubesheet
24	28	50	O.D.	1/2" above tubesheet
24	29	36	O.D.	1/2" above tubesheet
25	25	21	O.D.	1/2" above tubesheet
25	26	95	O.D.	1/2" above tubesheet
25	27	95	O.D.	At top of tubesheet
25	28	72	O.D.	1/2" above tubesheet
25	29	70	O.D.	1/2" above tubesheet
25	30	23	O.D.	1/2" above tubesheet
26	25	54	O.D.	1/2" above tubesheet
26	26	84	O.D.	At top of tubesheet
26	27	74	O.D.	At top of tubesheet
26	28	70	O.D.	1/2" above tubesheet
		34	O.D.	At top of tubesheet
26	29	50	O.D.	1/2" above tubesheet
26	50	40	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

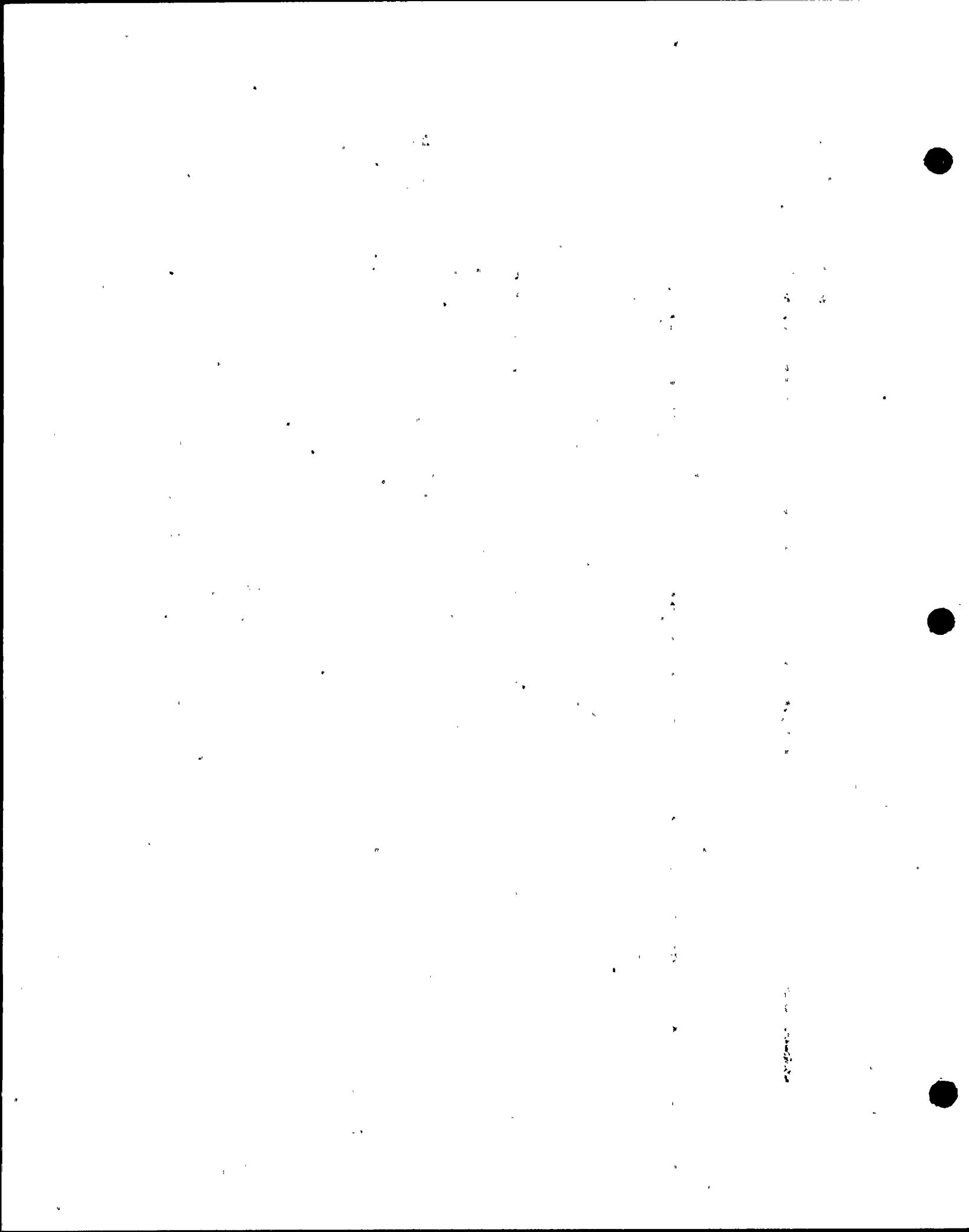
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
27	26	29	O.D.	1" above tubesheet
		29	O.D.	At top of tubesheet
27	27	67	O.D.	At top of tubesheet
27	28	82	O.D.	At top of tubesheet
27	29	83	O.D.	1" above tubesheet
27	30	60	O.D.	1" above tubesheet
27	31	50	O.D.	1" above tubesheet
27	60	26	O.D.	At top of tubesheet
28	24	30	O.D.	At top of tubesheet
28	25	42	O.D.	At top of tubesheet
28	27	37	O.D.	3" above tubesheet
		35	O.D.	2" above tubesheet
28	28	50	O.D.	1" above tubesheet
		55	O.D.	1/2" above tubesheet
28	29	30	O.D.	1" above tubesheet
28	30	70	O.D.	1" above tubesheet
28	54	21	O.D.	1" above tubesheet
28	55	24	O.D.	1" above tubesheet
28	56	31	O.D.	1" above tubesheet
28	57	97	O.D.	1" above tubesheet
28	59	37	O.D.	1" above tubesheet
29	23	30	O.D.	1/2" above tubesheet
29	26	24	O.D.	1/2" above tubesheet
29	27	30	O.D.	1" above tubesheet
29	30	52	O.D.	1/2" above tubesheet
29	39	24	O.D.	1/2" above tubesheet
29	40	38	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

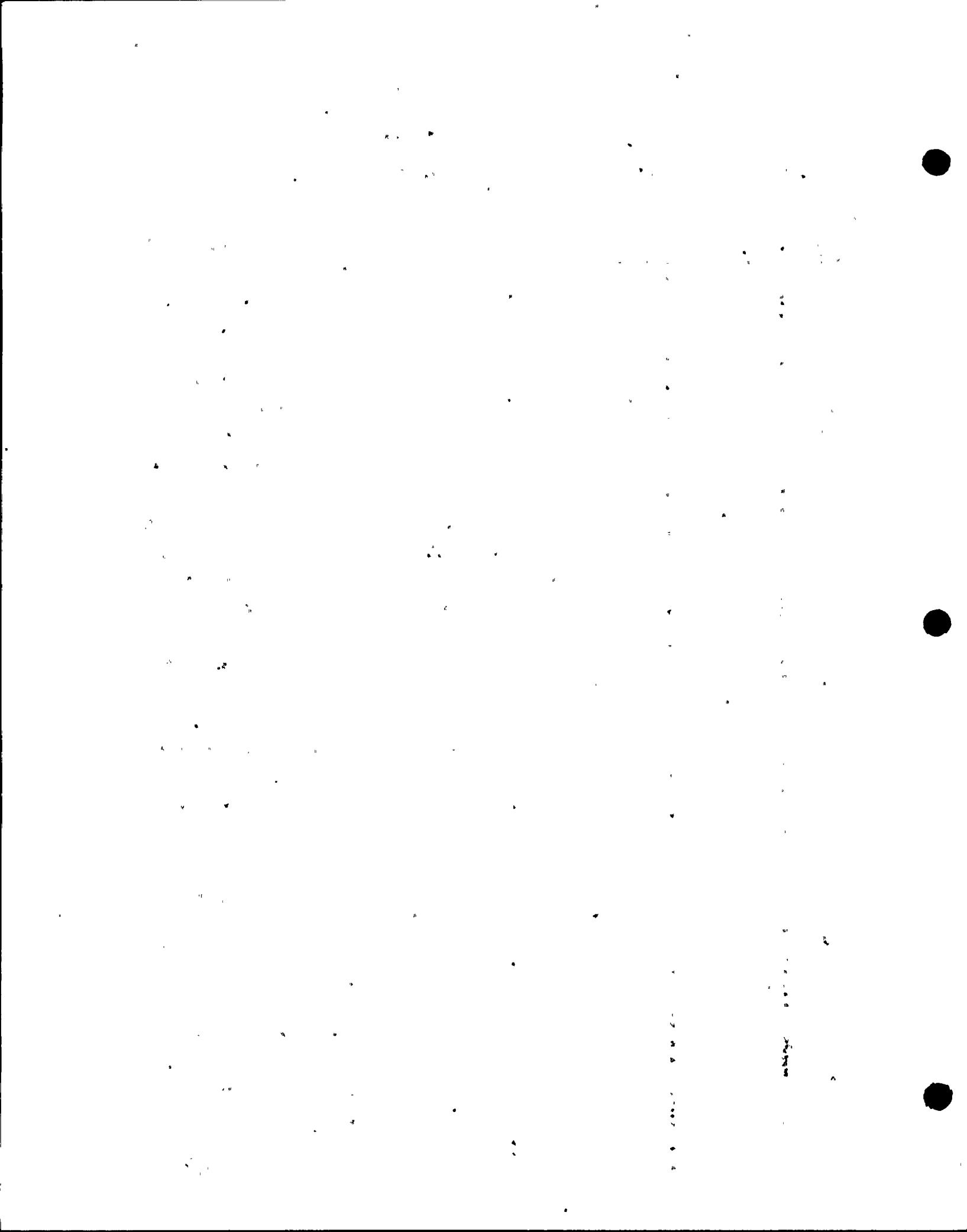
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974.

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
29	41	35	O.D.	1/2" above tubesheet
29	45	46	O.D.	1" above tubesheet
		32	O.D.	1/2" above tubesheet
29	54	27	O.D.	1" above tubesheet
29	55	27	O.D.	1" above tubesheet
		34	O.D.	1/2" above tubesheet
29	56	30	O.D.	1" above tubesheet
29	57	50	O.D.	1" above tubesheet
29	59	70	O.D.	At top of tubesheet
30	21	46	O.D.	1/2" above tubesheet
30	28	54	O.D.	1/2" above tubesheet
30	37	57	O.D.	1/2" above tubesheet
30	38	36	O.D.	1/2" above tubesheet
30	39	40	O.D.	1/2" above tubesheet
30	40	40	O.D.	1/2" above tubesheet
30	42	78	O.D.	At top of tubesheet
30	43	23	O.D.	1/2" above tubesheet
30	44	21	O.D.	1/2" above tubesheet
30	51	35	O.D.	1/2" above tubesheet
30	52	38	O.D.	1/2" above tubesheet
30	54	52	O.D.	1" above tubesheet
30	55	34	O.D.	1/2" above tubesheet
30	56	36	O.D.	1/2" above tubesheet
31	39	40	O.D.	1/2" above tubesheet
31	42	21	O.D.	1/2" above tubesheet
31	56	47	O.D.	1" above tubesheet
32	21	59	O.D.	1/2" above tubesheet
		70	O.D.	At top of tubesheet
32	22	34	O.D.	1/2" above tubesheet
32	43	34	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

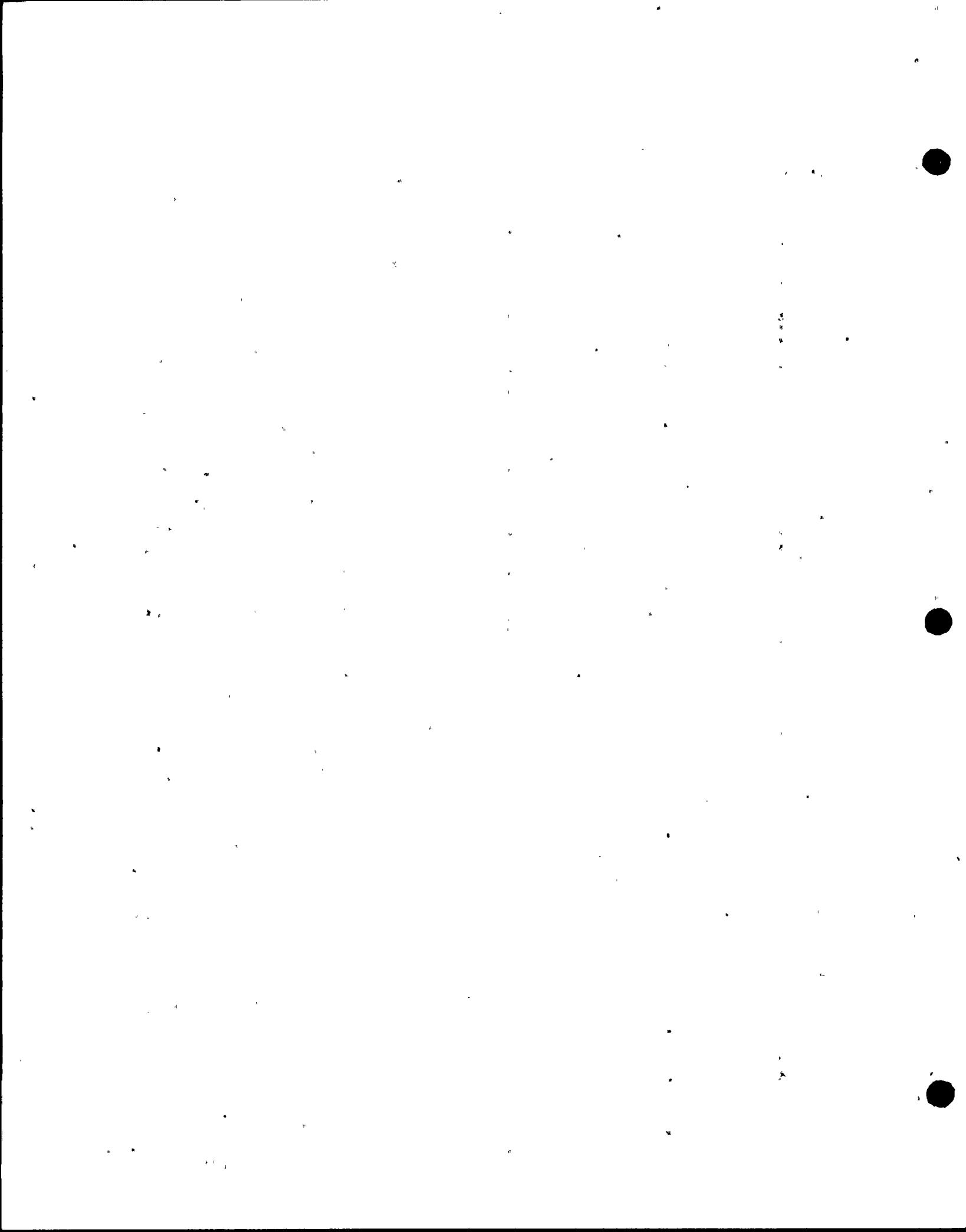
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
32	50	54	O.D.	1" above tubesheet
32	53	70	O.D.	1/2" above tubesheet
32	54	61	O.D.	1" above tubesheet
		30	O.D.	1/2" above tubesheet
32	55	37	O.D.	1/2" above tubesheet
32	56	72	O.D.	1" above tubesheet
		60	O.D.	1/2" above tubesheet
33	41	34	O.D.	1/2" above tubesheet
33	42	58	O.D.	1/2" above tubesheet
33	43	25	O.D.	1" above tubesheet
		36	O.D.	1/2" above tubesheet
33	51	34	O.D.	1/2" above tubesheet
33	53	55	O.D.	1/2" above tubesheet
33	54	54	O.D.	1" above tubesheet
33	55	45	O.D.	1/2" above tubesheet
34	43	63	O.D.	At top of tubesheet
34	52	45	O.D.	1/2" above tubesheet
34	54	21	O.D.	1" above tubesheet
		63	O.D.	1/2" above tubesheet
34	55	24	O.D.	1/2" above tubesheet
35	54	35	O.D.	1" above tubesheet
35	55	24	O.D.	1/2" above tubesheet
36	53	34	O.D.	1/2" above tubesheet
36	54	29	O.D.	1/2" above tubesheet
36	55	34	O.D.	1/2" above tubesheet
37	55	23	O.D.	1/2" above tubesheet
39	54	60	O.D.	At top of tubesheet
42	53	62	O.D.	At top of tubesheet
43	35	62	O.D.	At No. 1 support



EDDY CURRENT TEST RESULTS

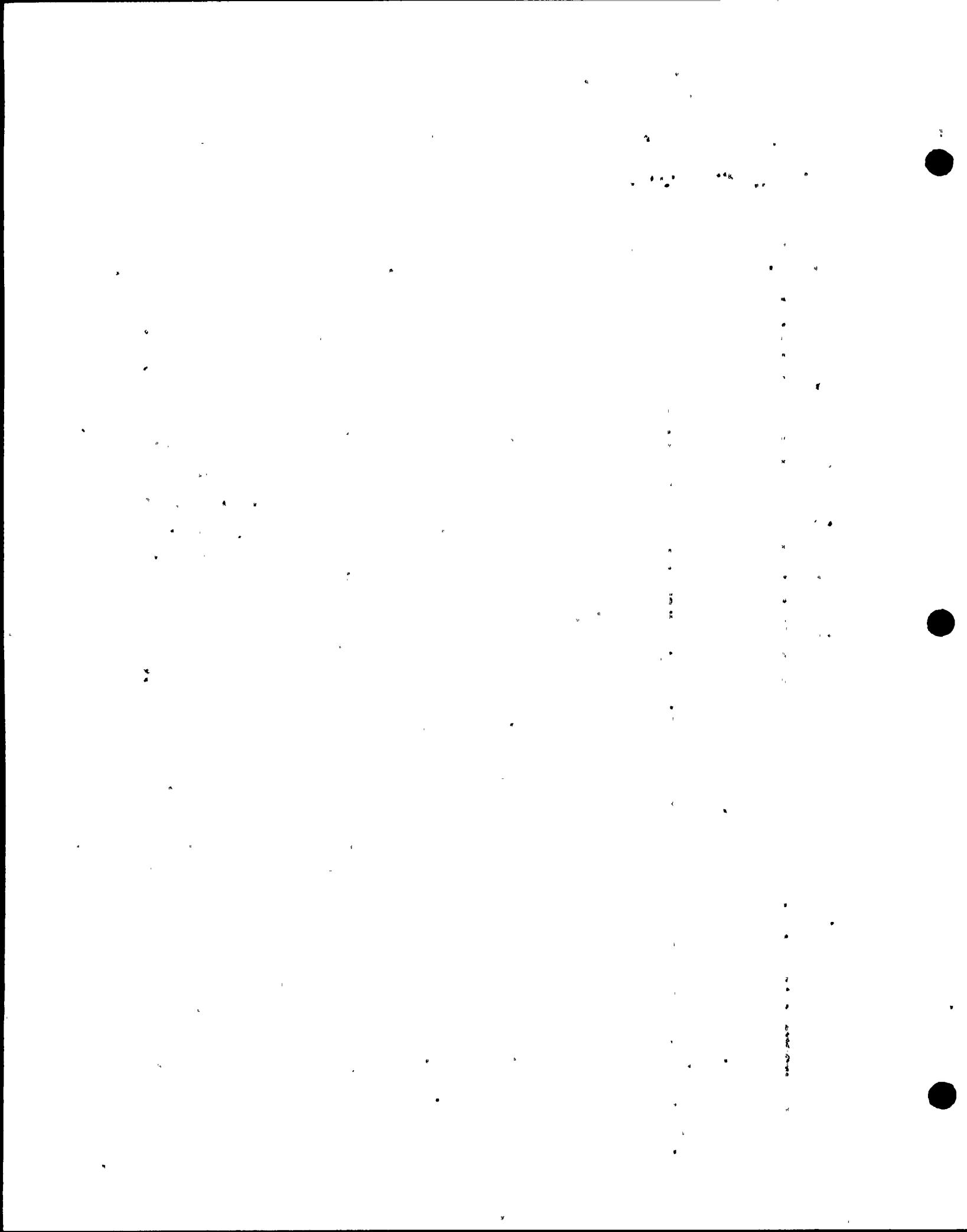
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
5	15	<20	O.D.	1/2" above tubesheet
5	21	<20	O.D.	1/2" above tubesheet
8	78	<20	O.D.	1/2" above tubesheet
8	79	<20	O.D.	1/2" above tubesheet
8	80	<20	O.D.	1/2" above tubesheet
9	21	<20	O.D.	1/2" above tubesheet
9	75	<20	O.D.	1/2" above tubesheet
9	76	<20	O.D.	1/2" above tubesheet
9	81	<20	O.D.	At top of tubesheet
10	82	<20	O.D.	1/2" above tubesheet
11	21	<20	O.D.	At top of tubesheet
11	22	20	O.D.	1/2" above tubesheet
11	28	<20	O.D.	1/2" above tubesheet
11	35	<20	O.D.	At top of tubesheet
11	46	<20	I.D.	34" above tubesheet
11	75	<20	O.D.	At top of tubesheet
11	76	<20	O.D.	At top of tubesheet
11	79	<20	O.D.	At top of tubesheet
12	23	<20	O.D.	1/2" above tubesheet
12	44	<20	O.D.	At top of tubesheet
12	70	<20	O.D.	At top of tubesheet
12	71	<20	O.D.	At top of tubesheet
12	75	<20	O.D.	At top of tubesheet
12	76	<20	O.D.	At top of tubesheet
12	78	<20	O.D.	At top of tubesheet
12	79	<20	O.D.	1/2" above tubesheet
12	82	<20	O.D.	1/2" above tubesheet
13	22	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

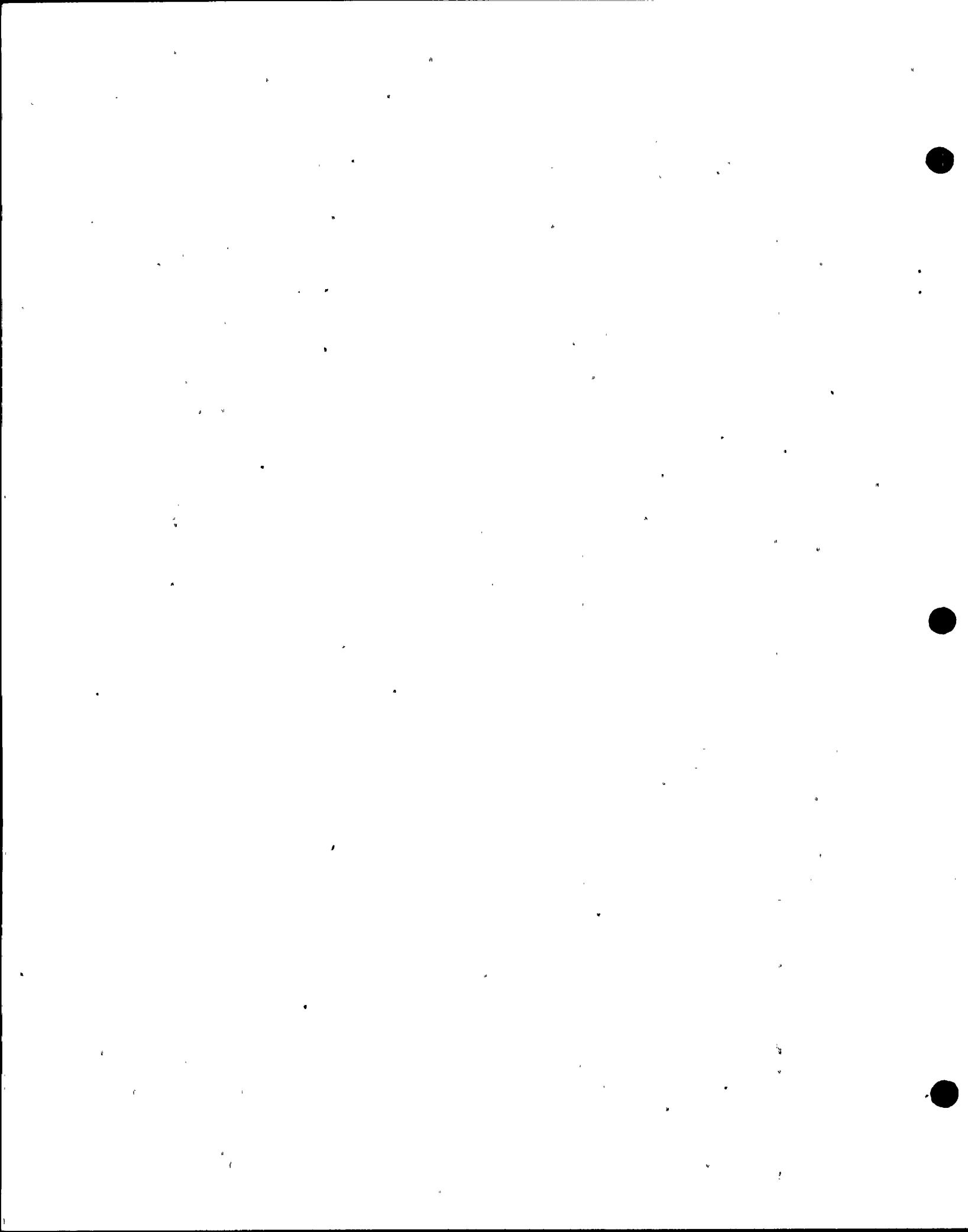
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
13	23	<20	O.D.	1/2" above tubesheet
13	45	<20	O.D.	1/2" above tubesheet
13	46	<20	O.D.	1/2" above tubesheet
13	66	<20	O.D.	At top of tubesheet
13	69	<20	O.D.	1/2" above tubesheet
13	71	<20	O.D.	At top of tubesheet
13	72	<20	O.D.	1/2" above tubesheet
13	74	<20	O.D.	1/2" above tubesheet
14	23	<20	O.D.	1/2" above tubesheet
14	36	<20	O.D.	1/2" above tubesheet
14	37	<20	O.D.	At top of tubesheet
14	38	<20	O.D.	At top of tubesheet
14	42	<20	O.D.	At top of tubesheet
14	66	<20	O.D.	1/2" above tubesheet
14	75	<20	O.D.	1/2" above tubesheet
15	30	<20	O.D.	1/2" above tubesheet
15	32	<20	O.D.	1/2" above tubesheet
15	33	<20	O.D.	1/2" above tubesheet
15	34	<20	O.D.	1/2" above tubesheet
15	37	<20	O.D.	At top of tubesheet
15	38	<20	O.D.	1/2" above tubesheet
15	39	<20	O.D.	1/2" above tubesheet
15	42	<20	O.D.	At top of tubesheet
15	43	<20	O.D.	At top of tubesheet
15	50	<20	O.D.	1/2" above tubesheet
15	64	<20	O.D.	1/2" above tubesheet
15	71	<20	O.D.	1/2" above tubesheet
16	31	<20	O.D.	At top of tubesheet
16	33	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

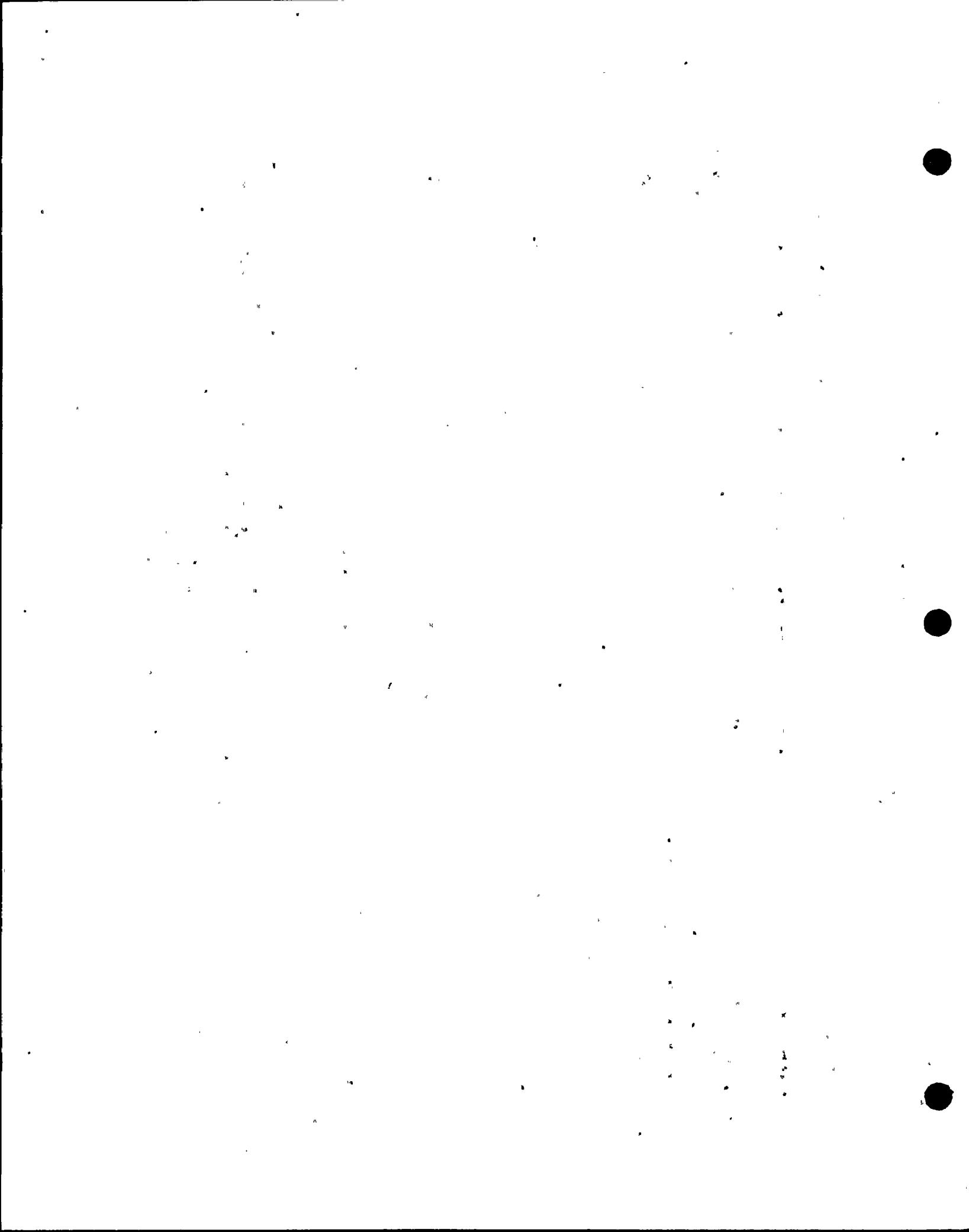
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
16	34	<20	O.D.	1/2" above tubesheet
16	35	<20	O.D.	1" above tubesheet
16	41	<20	O.D.	1/2" above tubesheet
16	42	<20	O.D.	1/2" above tubesheet
16	43	<20	O.D.	At top of tubesheet
16	44	<20	O.D.	At top of tubesheet
16	47	<20	O.D.	1/2" above tubesheet
16	48	<20	O.D.	1/2" above tubesheet
16	51	<20	O.D.	1/2" above tubesheet
16	63	<20	O.D.	1/2" above tubesheet
17	32	<20	O.D.	1" above tubesheet
17	37	20	O.D.	2" above tubesheet
		20	O.D.	1/2" above tubesheet
17	40	<20	O.D.	3" above tubesheet
17	41	<20	O.D.	3" above tubesheet
17	42	<20	O.D.	2" above tubesheet
17	43	<20	O.D.	2" above tubesheet
17	44	<20	O.D.	1" above tubesheet
17	45	<20	O.D.	1/2" above tubesheet
17	46	<20	O.D.	1/2" above tubesheet
17	48	<20	O.D.	1/2" above tubesheet
18	33	<20	O.D.	1/2" above tubesheet
18	35	20	O.D.	1" above tubesheet
18	38	<20	O.D.	3" above tubesheet
18	40	<20	O.D.	3" above tubesheet
18	42	<20	O.D.	3" above tubesheet
18	43	<20	O.D.	2" above tubesheet
18	44	20	O.D.	1/2" above tubesheet
18	46	<20	O.D.	3" above tubesheet



EDDY CURRENT TEST RESULTS

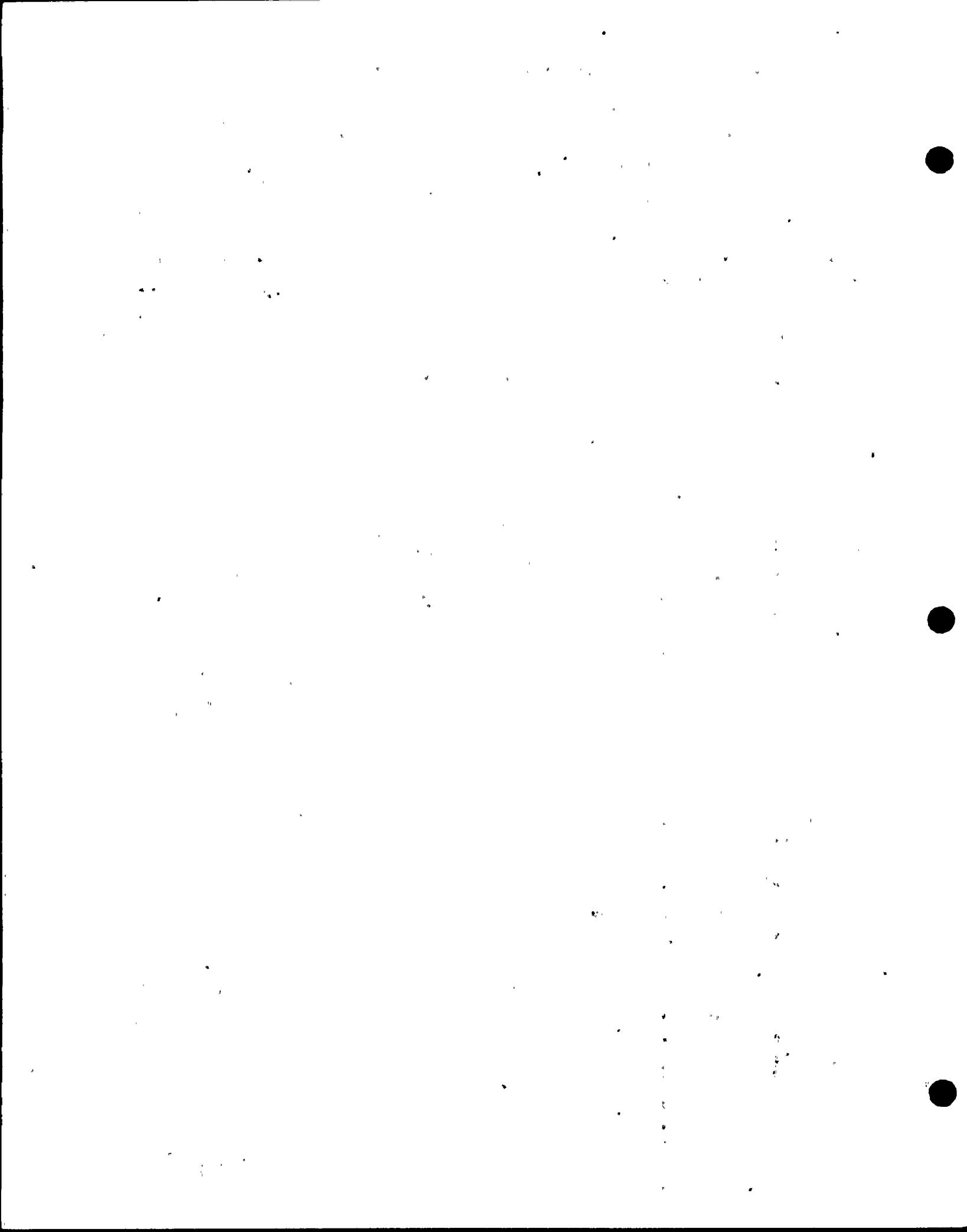
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
18	47	<20	O.D.	1" above tubesheet
18	48	<20	O.D.	1/2" above tubesheet
18	53	<20	O.D.	1/2" above tubesheet
19	33	<20	O.D.	At top of tubesheet
19	35	<20	O.D.	1/2" above tubesheet
19	38	<20	O.D.	1/2" above tubesheet
19	40	<20	O.D.	1/2" above tubesheet
19	47	<20	O.D.	1" above tubesheet
19	48	<20	O.D.	2" above tubesheet
19	49	<20	O.D.	1/2" above tubesheet
19	50	<20	O.D.	1/2" above tubesheet
19	51	<20	O.D.	1/2" above tubesheet
19	54	<20	O.D.	1/2" above tubesheet
20	36	<20	O.D.	1/2" above tubesheet
20	38	<20	O.D.	At top of tubesheet
20	40	<20	O.D.	1/2" above tubesheet
20	41	<20	O.D.	1/2" above tubesheet
20	42	<20	O.D.	1/2" above tubesheet
20	44	<20	O.D.	1/2" above tubesheet
20	45	<20	O.D.	1/2" above tubesheet
20	46	<20	O.D.	1/2" above tubesheet
20	47	<20	O.D.	3" above tubesheet
20	48	<20	O.D.	1/2" above tubesheet
20	50	<20	O.D.	1/2" above tubesheet
20	51	<20	O.D.	1" above tubesheet
20	52	<20	O.D.	1/2" above tubesheet
20	53	<20	O.D.	2" above tubesheet
20	54	20	O.D.	1/2" above tubesheet
20	63	<20	O.D.	1/2" above tubesheet
20	64	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

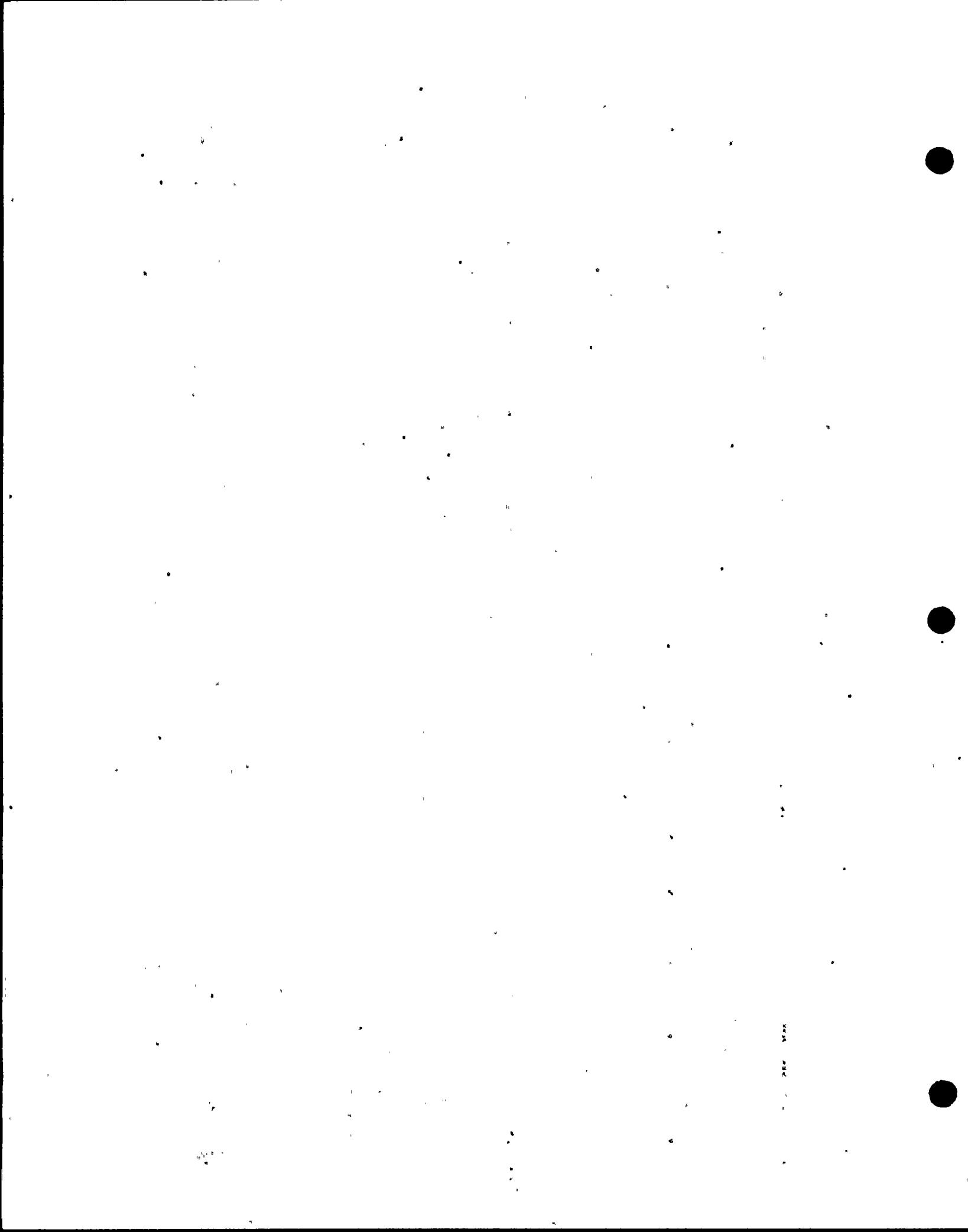
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
20	70	<20	O.D.	1/2" above tubesheet
21	25	<20	O.D.	1/2" above tubesheet
21	32	<20	O.D.	34" above tubesheet
21	42	<20	O.D.	1/2" above tubesheet
21	44	<20	O.D.	At top of tubesheet
21	46	<20	O.D.	1/2" above tubesheet
21	47	<20	O.D.	2" above tubesheet
21	49	<20	O.D.	1/2" above tubesheet
21	50	<20	O.D.	1/2" above tubesheet
21	51	<20	O.D.	1" above tubesheet
21	52	<20	O.D.	1/2" above tubesheet
21	53	<20	O.D.	1" above tubesheet
21	54	<20	O.D.	1/2" above tubesheet
21	55	<20	O.D.	1/2" above tubesheet
21	57	<20	O.D.	At top of tubesheet
22	43	<20	O.D.	1/2" above tubesheet
22	44	<20	O.D.	1/2" above tubesheet
22	49	<20	O.D.	1/2" above tubesheet
22	50	<20	O.D.	At top of tubesheet
22	51	<20	O.D.	1/2" above tubesheet
22	52	<20	O.D.	1/2" above tubesheet
22	54	<20	O.D.	1" above tubesheet
22	57	<20	O.D.	At top of tubesheet
23	38	<20	O.D.	1/2" above tubesheet
23	46	<20	O.D.	9" above tubesheet
23	50	<20	O.D.	1/2" above tubesheet
23	51	<20	O.D.	At top of tubesheet
23	52	<20	O.D.	At top of tubesheet



EDDY CURRENT TEST RESULTS

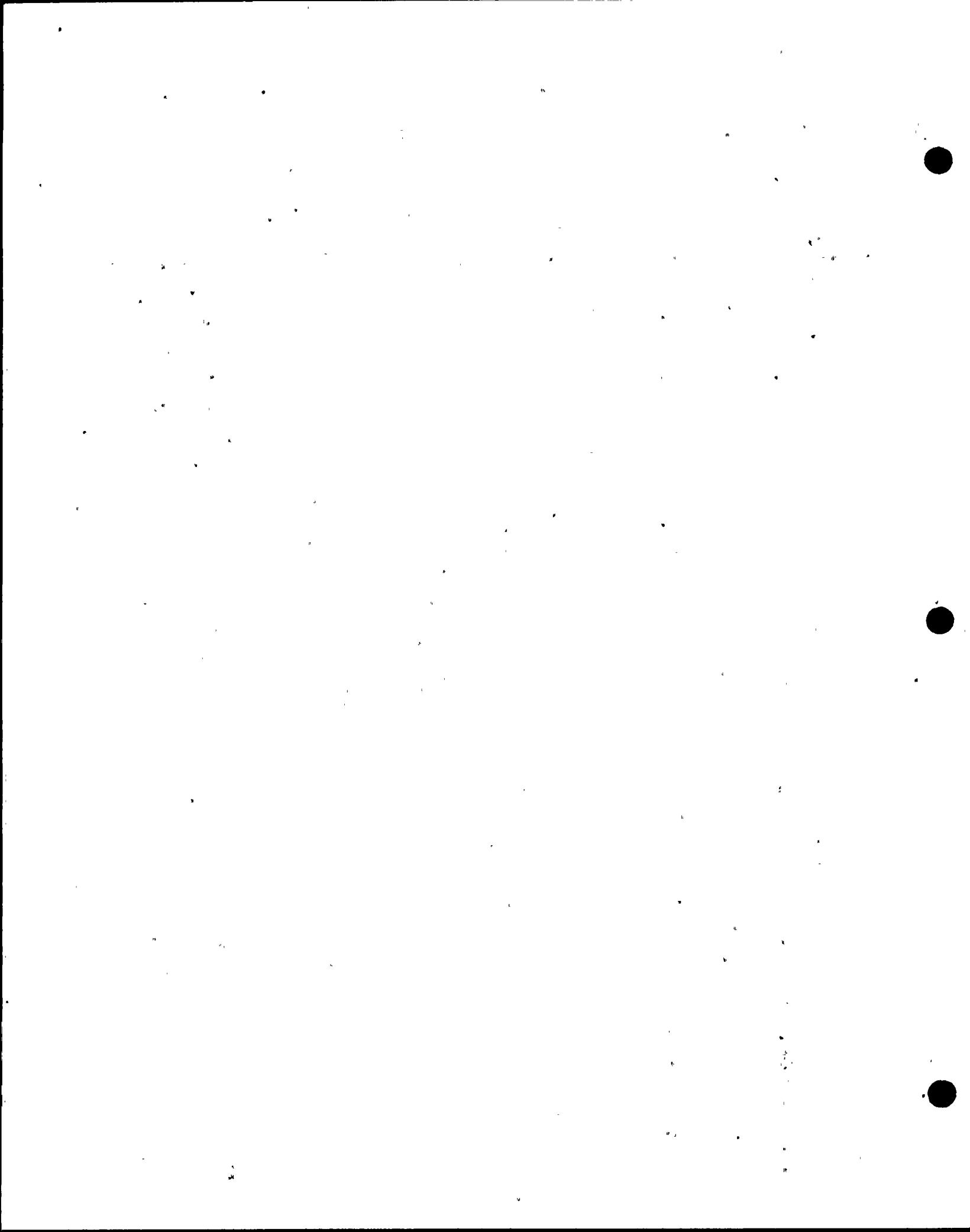
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
23	53	<20	O.D.	At top of tubesheet
23	54	<20	O.D.	At top of tubesheet
23	55	<20	O.D.	At top of tubesheet
24	25	<20	O.D.	1/2" above tubesheet
24	26	<20	O.D.	1/2" above tubesheet
24	30	<20	O.D.	At top of tubesheet
24	32	<20	O.D.	1/2" above tubesheet
24	44	<20	O.D.	1/2" above tubesheet
24	52	<20	O.D.	1/2" above tubesheet
24	53	<20	O.D.	At top of tubesheet
24	54	<20	O.D.	At top of tubesheet
24	55	<20	O.D.	At top of tubesheet
25	31	<20	O.D.	At top of tubesheet
25	50	<20	O.D.	1/2" above tubesheet
25	51	<20	O.D.	At top of tubesheet
25	53	<20	O.D.	1/2" above tubesheet
25	55	<20	O.D.	1/2" above tubesheet
26	24	<20	O.D.	1/2" above tubesheet
26	30	20	O.D.	1/2" above tubesheet
26	31	<20	O.D.	At top of tubesheet
26	32	<20	O.D.	At top of tubesheet
26	33	<20	O.D.	1/2" above tubesheet
26	43	20	O.D.	1" above tubesheet
26	51	<20	O.D.	1/2" above tubesheet
26	52	<20	O.D.	1/2" above tubesheet
26	55	<20	O.D.	1" above tubesheet
27	33	<20	O.D.	At top of tubesheet
27	39	<20	O.D.	At top of tubesheet
27	40	<20	O.D.	At top of tubesheet



EDDY CURRENT TEST RESULTS

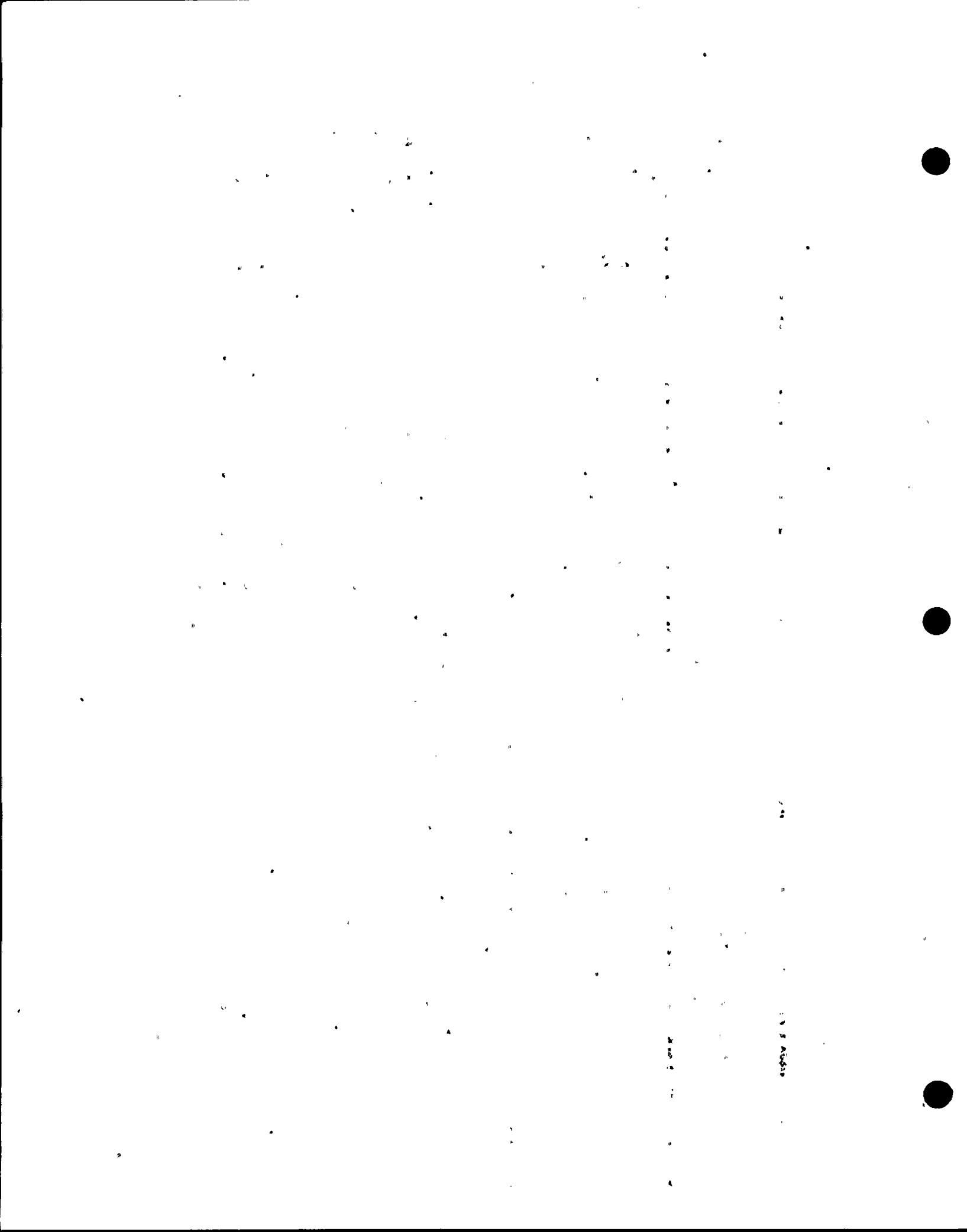
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
27	41	<20	O.D.	1/2" above tubesheet
27	50	<20	O.D.	1/2" above tubesheet
27	54	<20	O.D.	At top of tubesheet
27	55	<20	O.D.	1/2" above tubesheet
27	57	<20	O.D.	1/2" above tubesheet
27	58	<20	O.D.	1/2" above tubesheet
27	59	<20	O.D.	1/2" above tubesheet
27	61	<20	O.D.	At top of tubesheet
28	23	<20	O.D.	At top of tubesheet
28	26	<20	O.D.	1/2" above tubesheet
28	31	<20	O.D.	At top of tubesheet
28	34	<20	O.D.	1/2" above tubesheet
28	35	<20	O.D.	At top of tubesheet
28	36	<20	O.D.	At top of tubesheet
28	37	<20	O.D.	At top of tubesheet
28	38	<20	O.D.	At top of tubesheet
28	39	<20	O.D.	At top of tubesheet
28	40	<20	O.D.	1/2" above tubesheet
28	41	<20	O.D.	1/2" above tubesheet
28	42	<20	O.D.	1/2" above tubesheet
28	43	<20	O.D.	1/2" above tubesheet
28	58	<20	O.D.	1/2" above tubesheet
29	22	<20	O.D.	At top of tubesheet
29	24	20	O.D.	At top of tubesheet
29	28	<20	O.D.	1/2" above tubesheet
29	29	<20	O.D.	1/2" above tubesheet
29	33	<20	O.D.	At top of tubesheet
29	36	<20	O.D.	At top of tubesheet



EDDY CURRENT TEST RESULTS

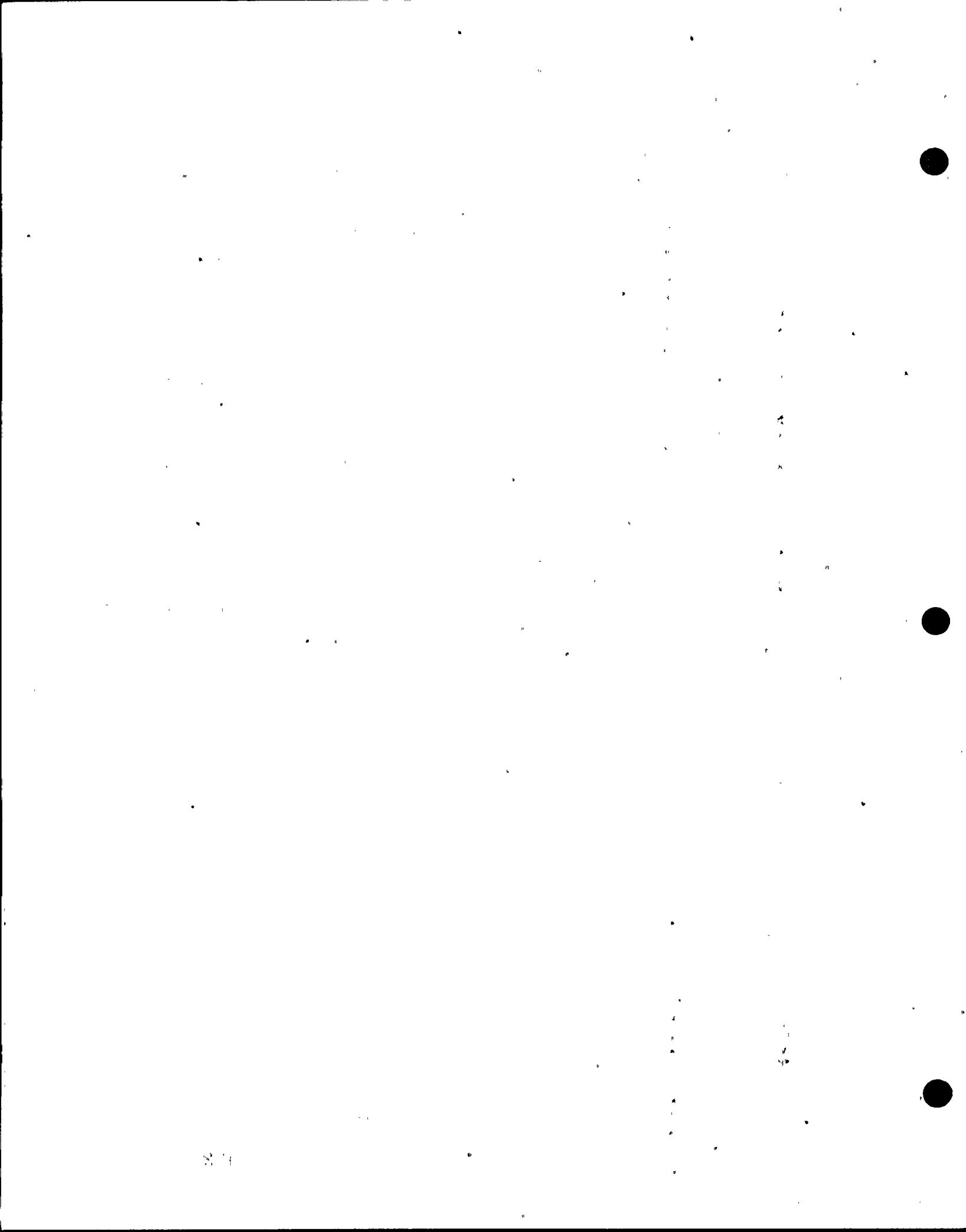
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet Side

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
29	37	<20	O.D.	1/2" above tubesheet
29	38	<20	O.D.	At top of tubesheet
29	42	<20	O.D.	At top of tubesheet
29	51	<20	O.D.	1/2" above tubesheet
29	53	<20	O.D.	1/2" above tubesheet
29	58	<20	O.D.	At top of tubesheet
30	22	<20	O.D.	1/2" above tubesheet
30	24	<20	O.D.	1/2" above tubesheet
30	26	<20	O.D.	At top of tubesheet
30	27	<20	O.D.	1/2" above tubesheet
30	41	<20	O.D.	1/2" above tubesheet
30	47	<20	O.D.	1/2" above tubesheet
30	49	<20	O.D.	1/2" above tubesheet
30	50	<20	O.D.	1/2" above tubesheet
30	53	<20	O.D.	1/2" above tubesheet
30	54	<20	O.D.	At top of tubesheet
30	57	<20	O.D.	At top of tubesheet
31	20	<20	O.D.	1/2" above tubesheet
31	40	<20	O.D.	1/2" above tubesheet
31	41	<20	O.D.	1/2" above tubesheet
31	42	<20	O.D.	1" above tubesheet
31	42	<20	O.D.	1/2" above tubesheet
31	43	<20	O.D.	1/2" above tubesheet
31	44	<20	O.D.	1/2" above tubesheet
31	52	<20	O.D.	1/2" above tubesheet
31	53	<20	O.D.	1/2" above tubesheet
31	54	<20	O.D.	1/2" above tubesheet
31	55	<20	O.D.	1/2" above tubesheet
32	41	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

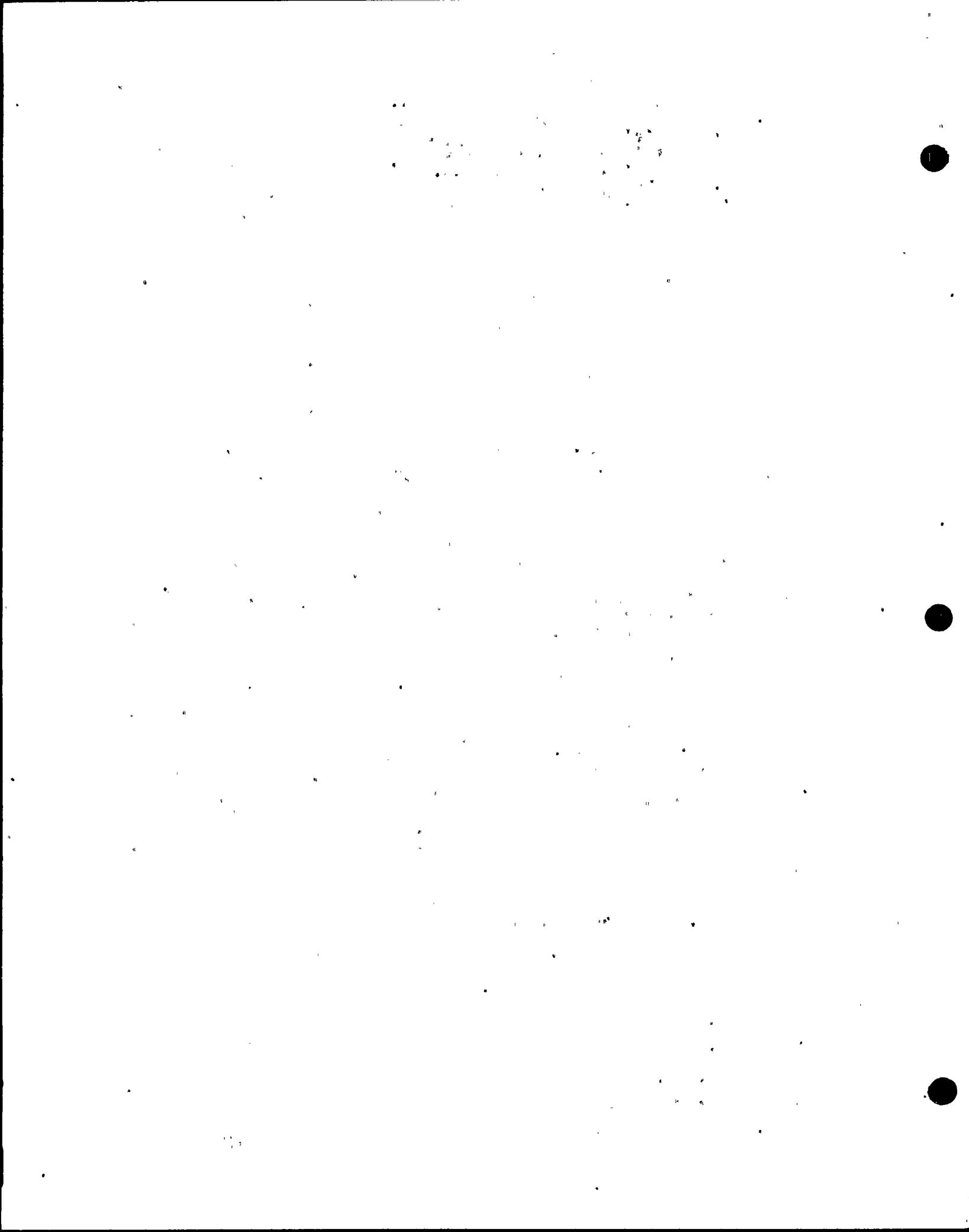
SITE: Turkey Point No. 4

STEAM GENERATOR: B Inlet

TEST FREQUENCY: 400 KHZ

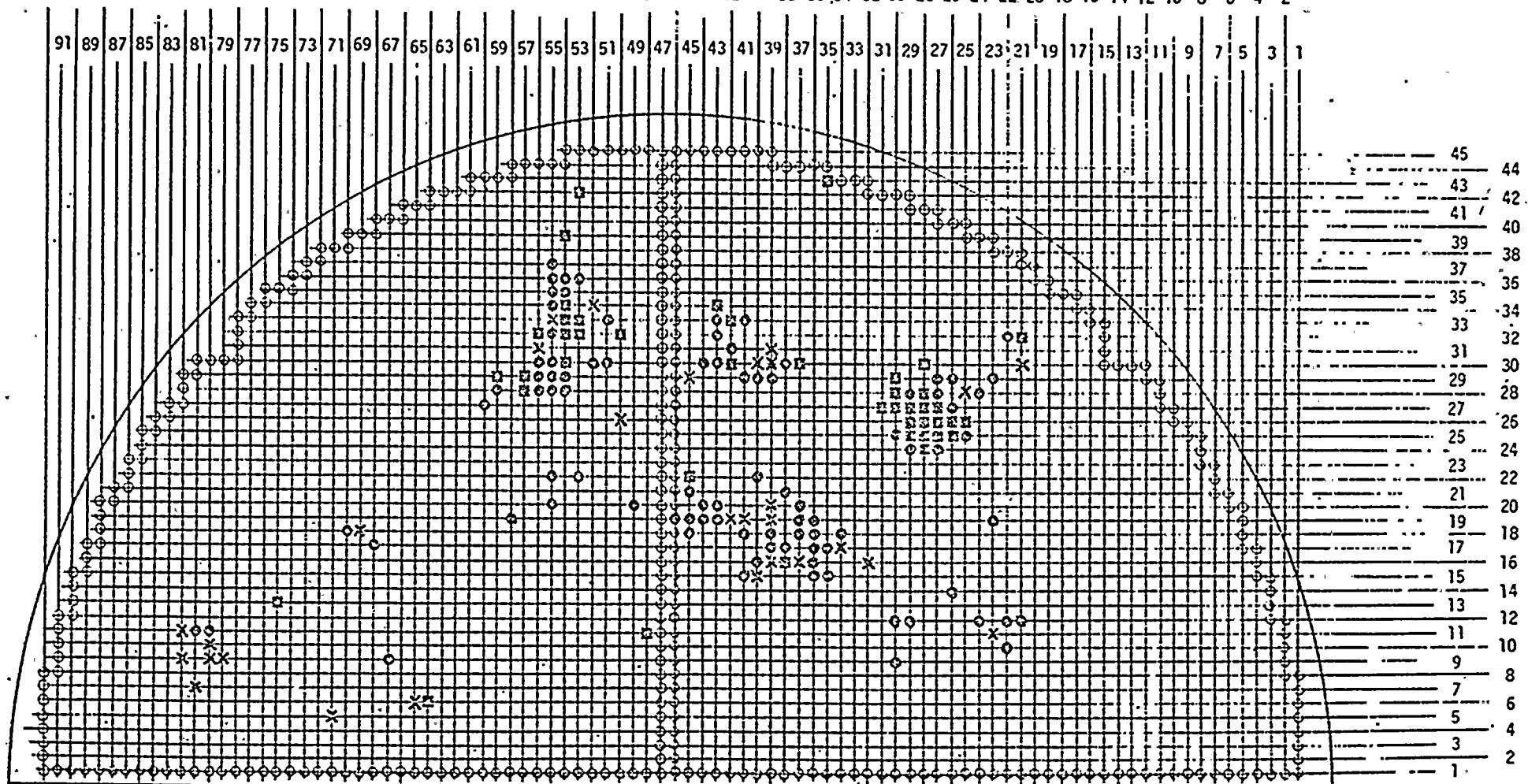
DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
32	42	<20	O.D.	1/2" above tubesheet
32	44	<20	O.D.	1/2" above tubesheet
32	45	<20	O.D.	At top of tubesheet
33	50	<20	O.D.	1/2" above tubesheet
33	52	<20	O.D.	1/2" above tubesheet
33	56	<20	O.D.	1/2" above tubesheet
33	57	<20	O.D.	1/2" above tubesheet
34	42	<20	O.D.	At top of tubesheet
34	51	<20	O.D.	1/2" above tubesheet
34	53	<20	O.D.	At top of tubesheet
34	56	<20	O.D.	At top of tubesheet
35	52	<20	O.D.	At top of tubesheet
35	53	20	O.D.	1/2" above tubesheet
		<20	O.D.	At top of tubesheet
37	54	<20	O.D.	At top of tubesheet
38	53	<20	O.D.	1/2" above tubesheet
38	54	20	O.D.	1/2" above tubesheet
39	53	<20	O.D.	1/2" above tubesheet



COLUMNS

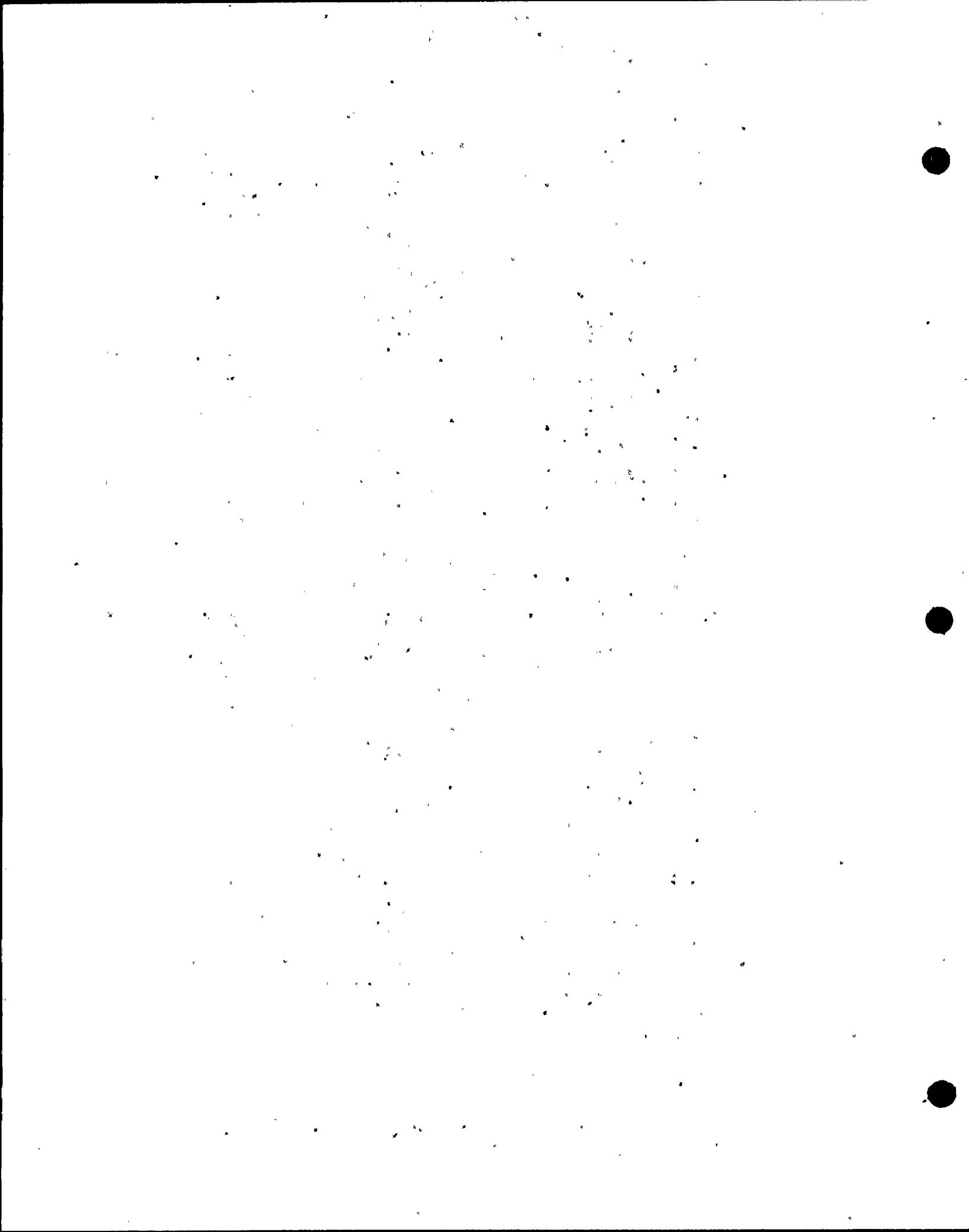
92 90 88 85 84 82 80 78 75 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36,34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



B-INLET

- ◻ >50%
- ✗ 40-49%
- 21-39%

NOZZLE. →

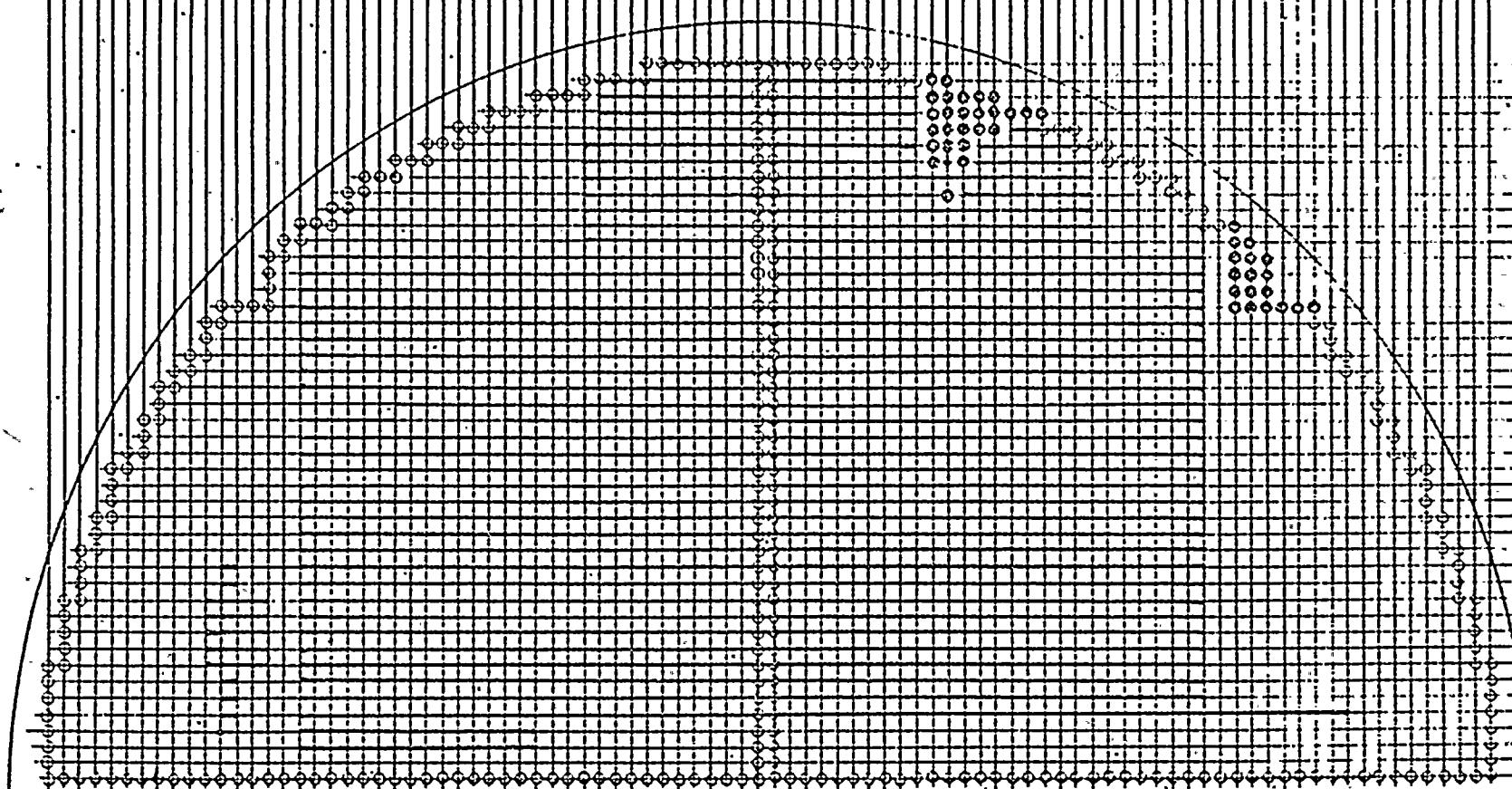


COLUMNS

92 90 88 85 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3

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43	42
41	40
39	38
37	36
35	34
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27	26
25	24
23	22
21	20
19	18
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15	14
13	12
11	10
9	8
7	6
5	4
3	2



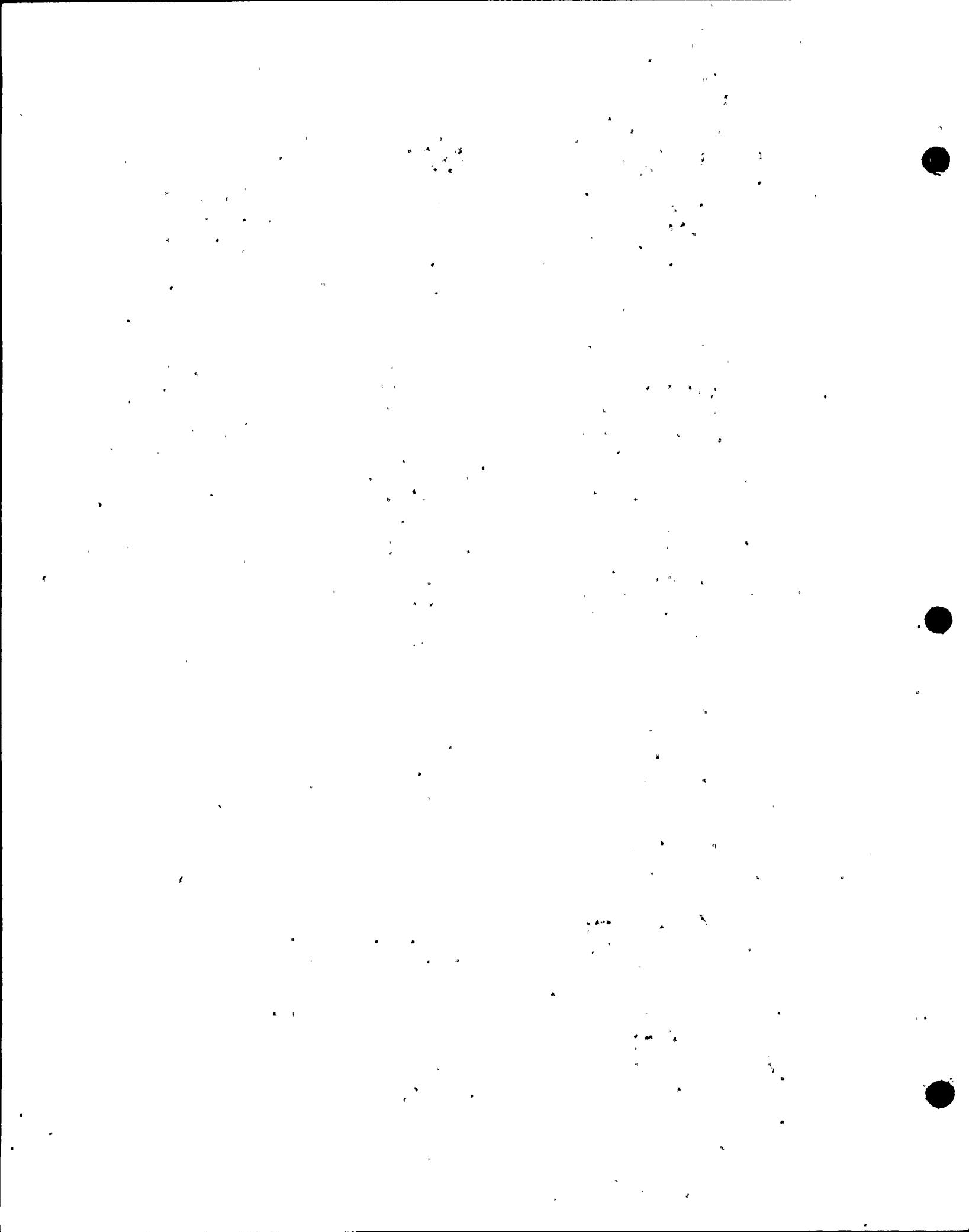
ROWS

B-INLET
I: INSPECTED UP TO FIRST SUPPORT
O: INSPECTED COMPLETELY AROUND U-BEND
O: INSPECTED AS FAR AS POSSIBLE AROUND U-BEND

 PANWAY

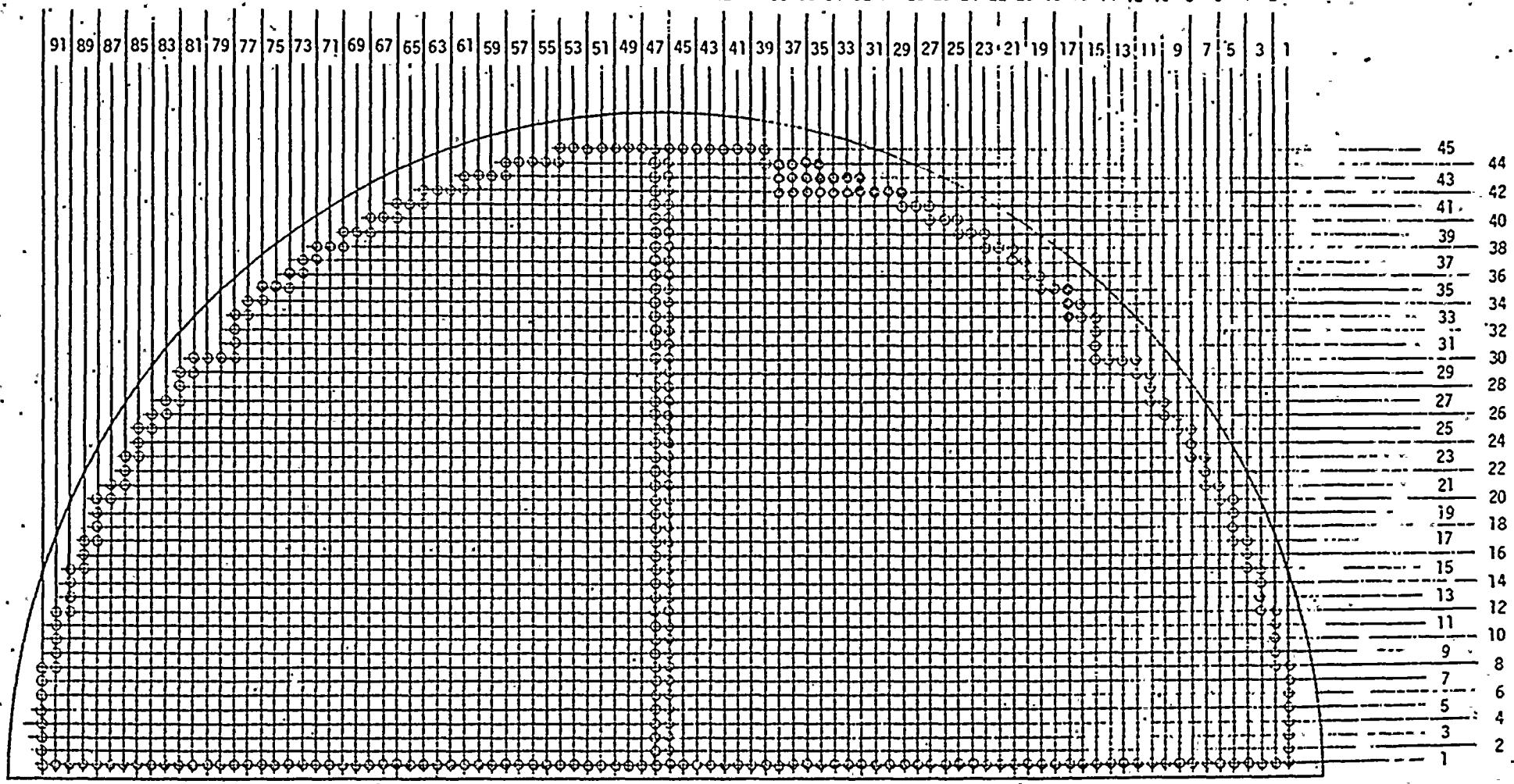
NOZZLE →

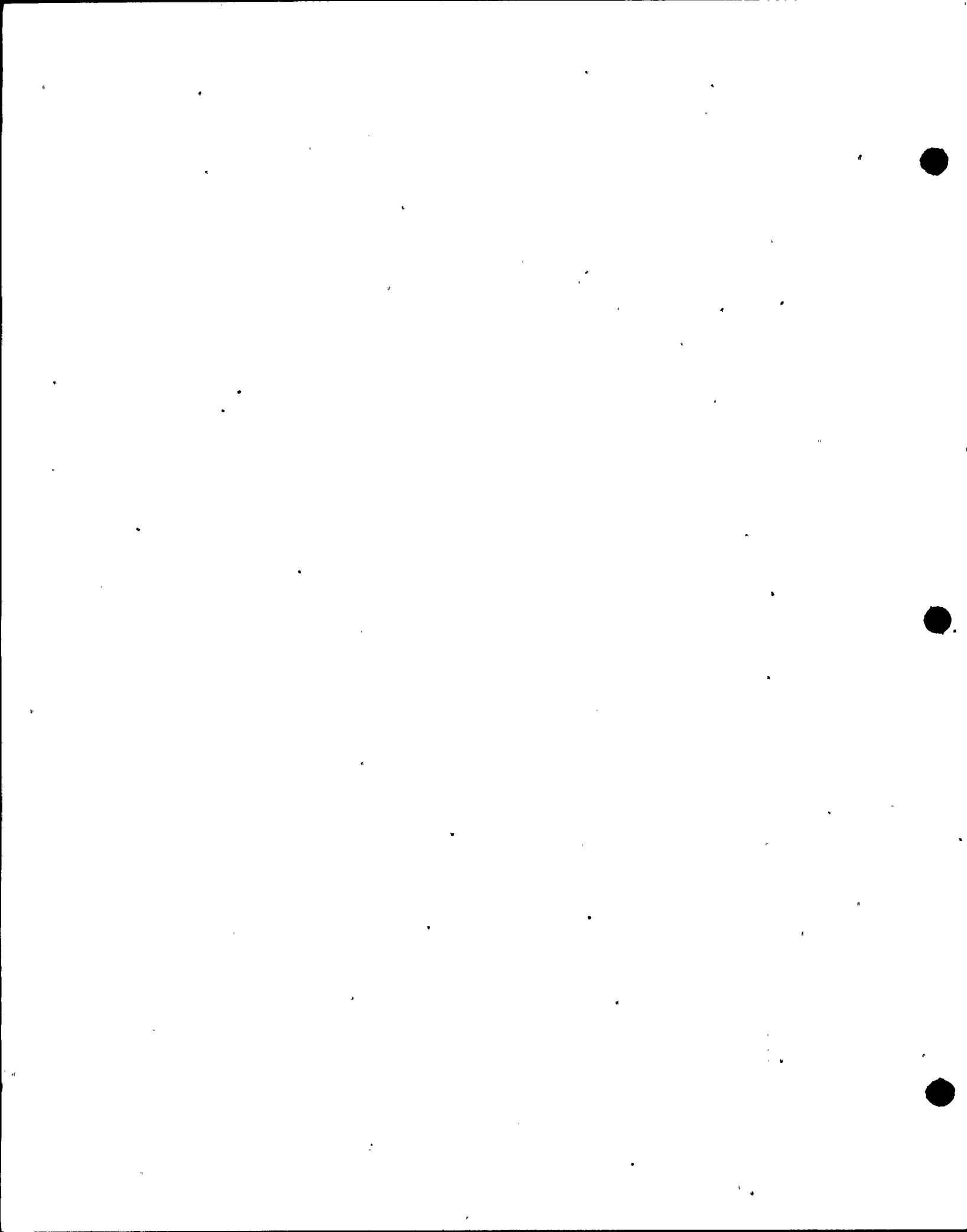
D-2 Page 17 of 18



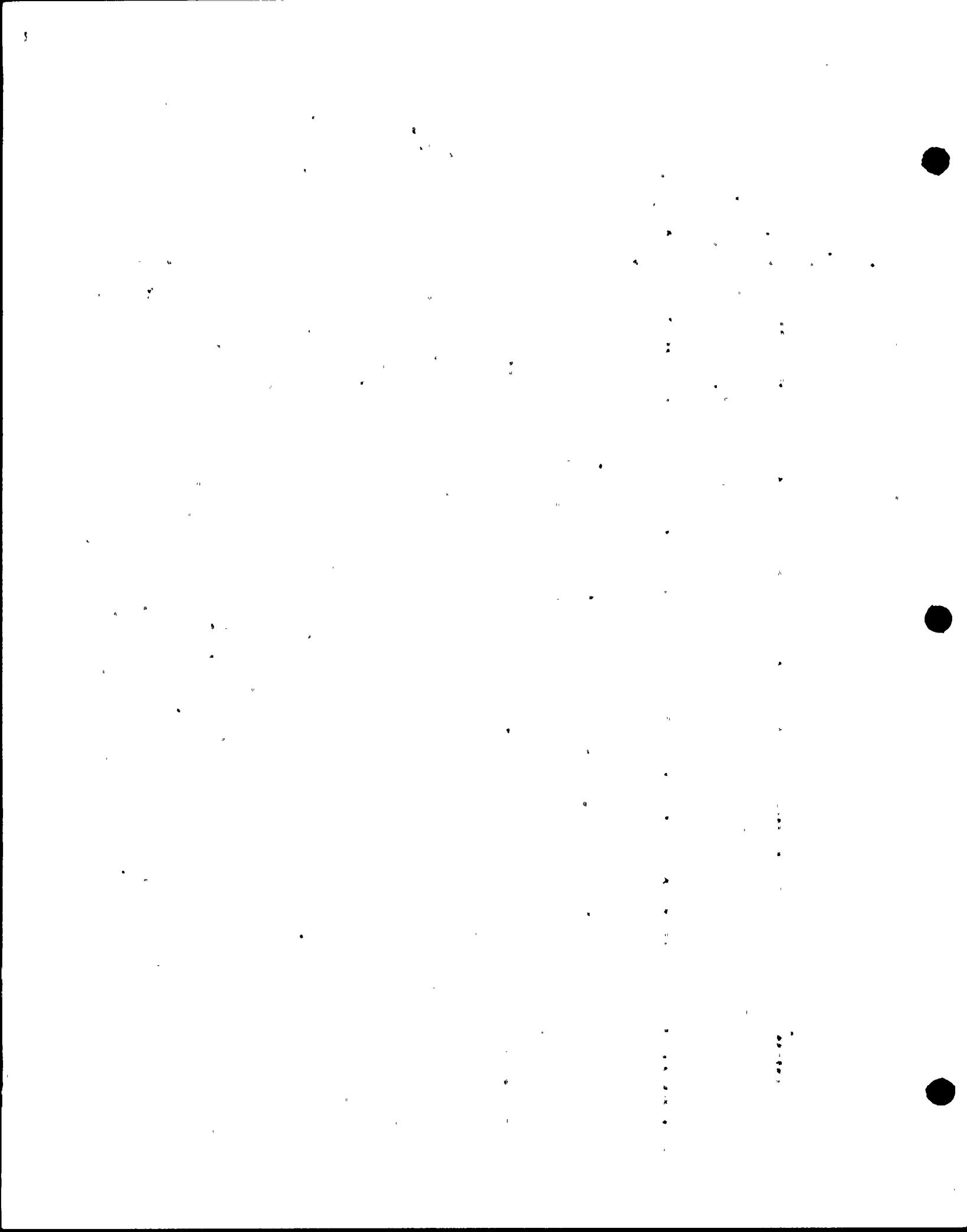
COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2





APPENDIX D-3



EDDY CURRENT TEST RESULTS

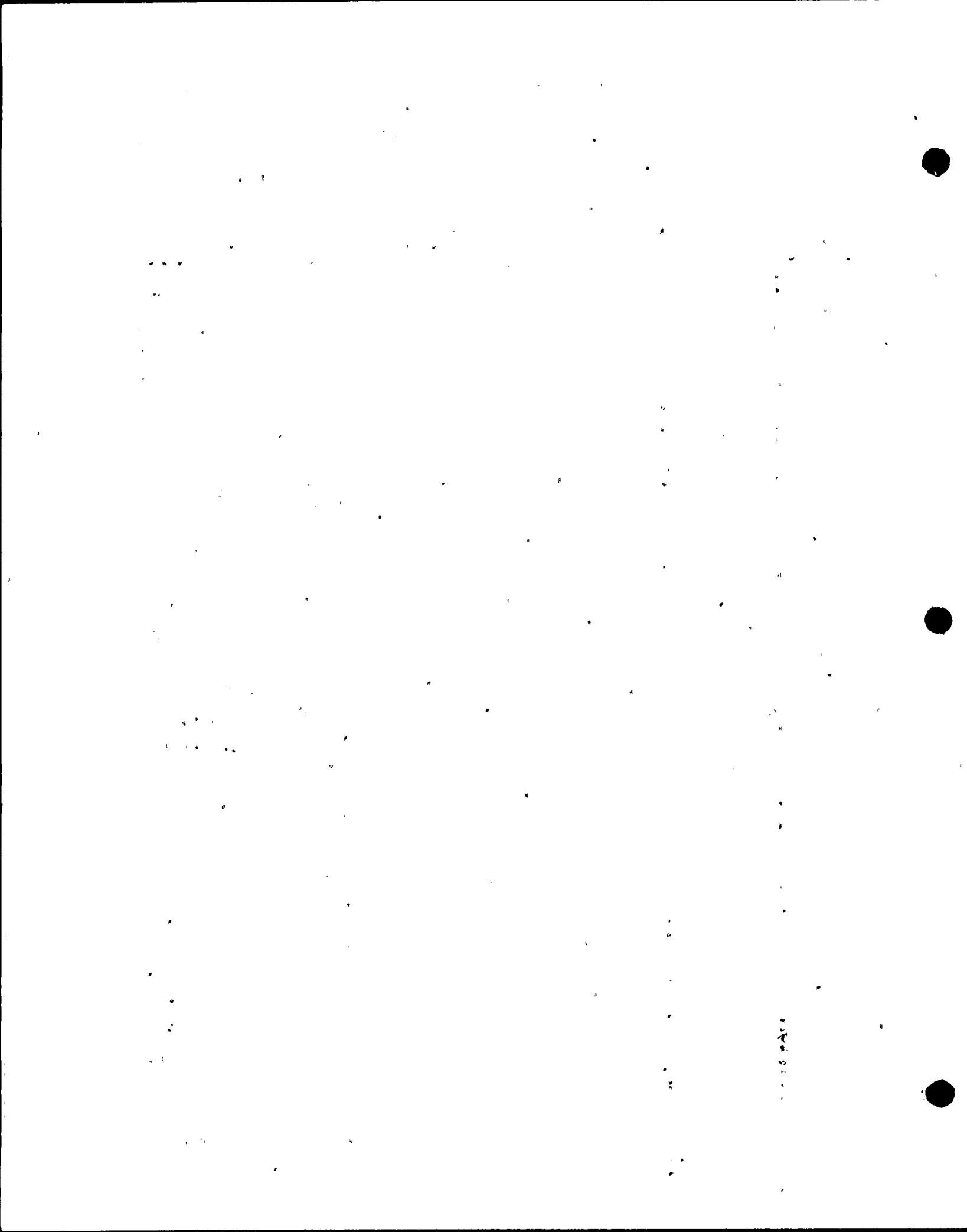
SITE: Turkey Point No. 4

STEAM GENERATOR: C Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
13	48	40	O.D.	1/2" above tubesheet
14	41	25	O.D.	1/2" above tubesheet
14	53	25	O.D.	1" above tubesheet
14	53	23	O.D.	1/2" above tubesheet
15	37	32	O.D.	1/2" above tubesheet
15	47	52	O.D.	3" above tubesheet
15	48	55	O.D.	3" above tubesheet
15	49	32	O.D.	2" above tubesheet
15	50	24	O.D.	2" above tubesheet
		31	O.D.	1/2" above tubesheet
15	51	51	O.D.	1/2" above tubesheet
15	53	25	O.D.	1/2" above tubesheet
16	48	24	O.D.	3" above tubesheet
16	49	50	O.D.	3" above tubesheet
16	51	53	O.D.	1/2" above tubesheet
16	52	41	O.D.	1/2" above tubesheet
16	73	27	O.D.	1/2" above tubesheet
17	53	33	O.D.	1/2" above tubesheet
28	30	91	O.D.	At top of tubesheet
33	54	31	O.D.	1/2" above tubesheet
39	51	50	O.D.	1/2" above tubesheet
39	52	24	O.D.	1/2" above tubesheet
41	53	52	O.D.	1/2" above tubesheet
42	53	29	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

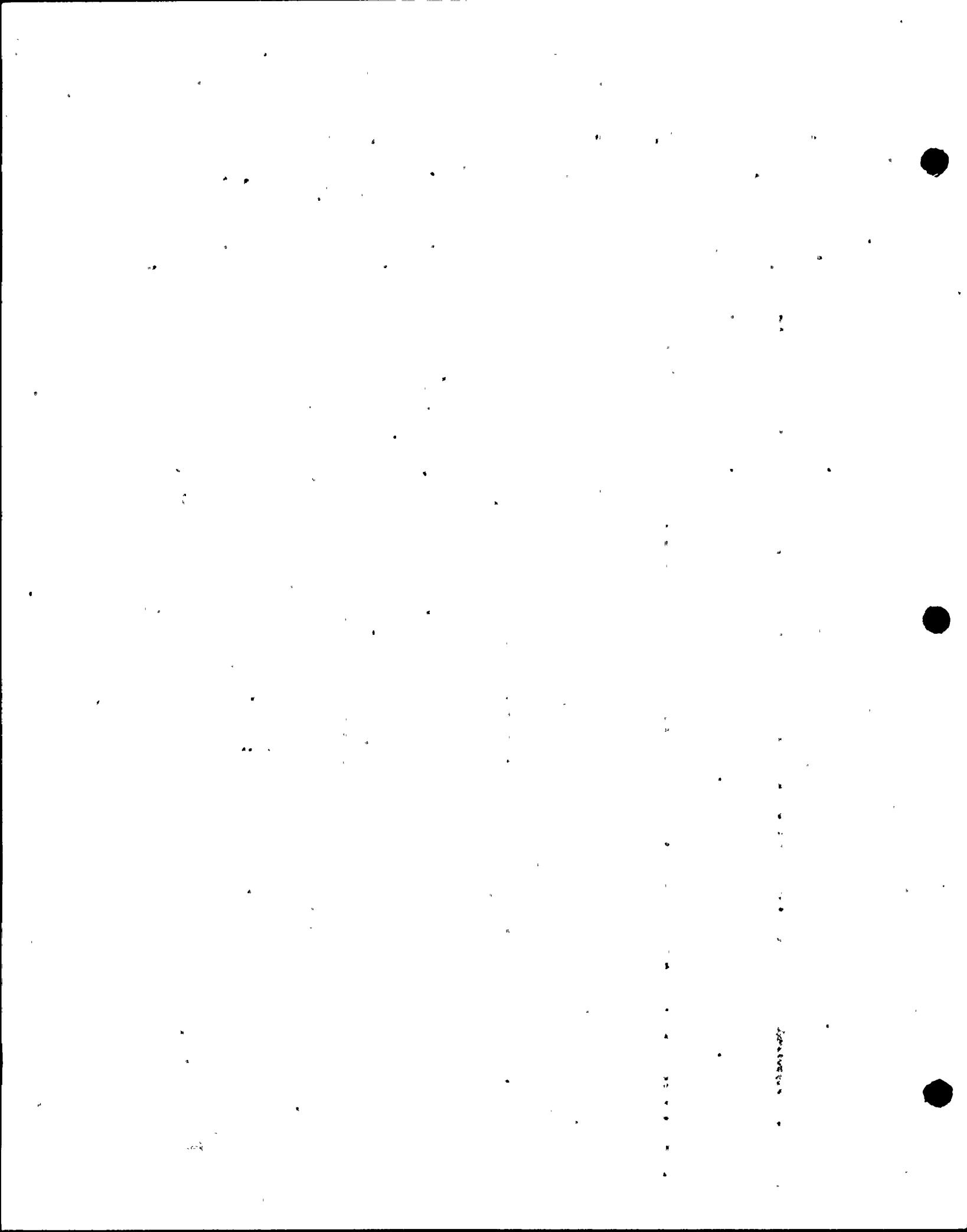
SITE: Turkey Point No. 4

STEAM GENERATOR: C Inlet Side

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
11	43	<20	O.D.	1/2" above tubesheet
12	44	<20	O.D.	1/2" above tubesheet
12	45	<20	O.D.	1/2" above tubesheet
13	37	<20	O.D.	1/2" above tubesheet
13	38	<20	O.D.	1/2" above tubesheet
13	43	<20	O.D.	1/2" above tubesheet
13	46	<20	O.D.	1/2" above tubesheet
13	50	<20	O.D.	1/2" above tubesheet
13	52	<20	O.D.	1/2" above tubesheet
13	53	<20	O.D.	1/2" above tubesheet
14	40	<20	O.D.	1/2" above tubesheet
14	42	<20	O.D.	1/2" above tubesheet
14	43	<20	O.D.	1/2" above tubesheet
14	44	<20	O.D.	1/2" above tubesheet
14	45	<20	O.D.	1/2" above tubesheet
14	46	20	O.D.	1/2" above tubesheet
14	47	<20	O.D.	1" above tubesheet
14	48	<20	O.D.	1/2" above tubesheet
14	49	<20	O.D.	1/2" above tubesheet
14	50	<20	O.D.	1" above tubesheet
14	52	<20	O.D.	1" above tubesheet
14	75	<20	O.D.	1/2" above tubesheet
15	39	<20	O.D.	1/2" above tubesheet
15	40	<20	O.D.	1/2" above tubesheet
15	41	<20	O.D.	1/2" above tubesheet
15	42	<20	O.D.	1/2" above tubesheet
15	43	<20	O.D.	1/2" above tubesheet
15	44	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

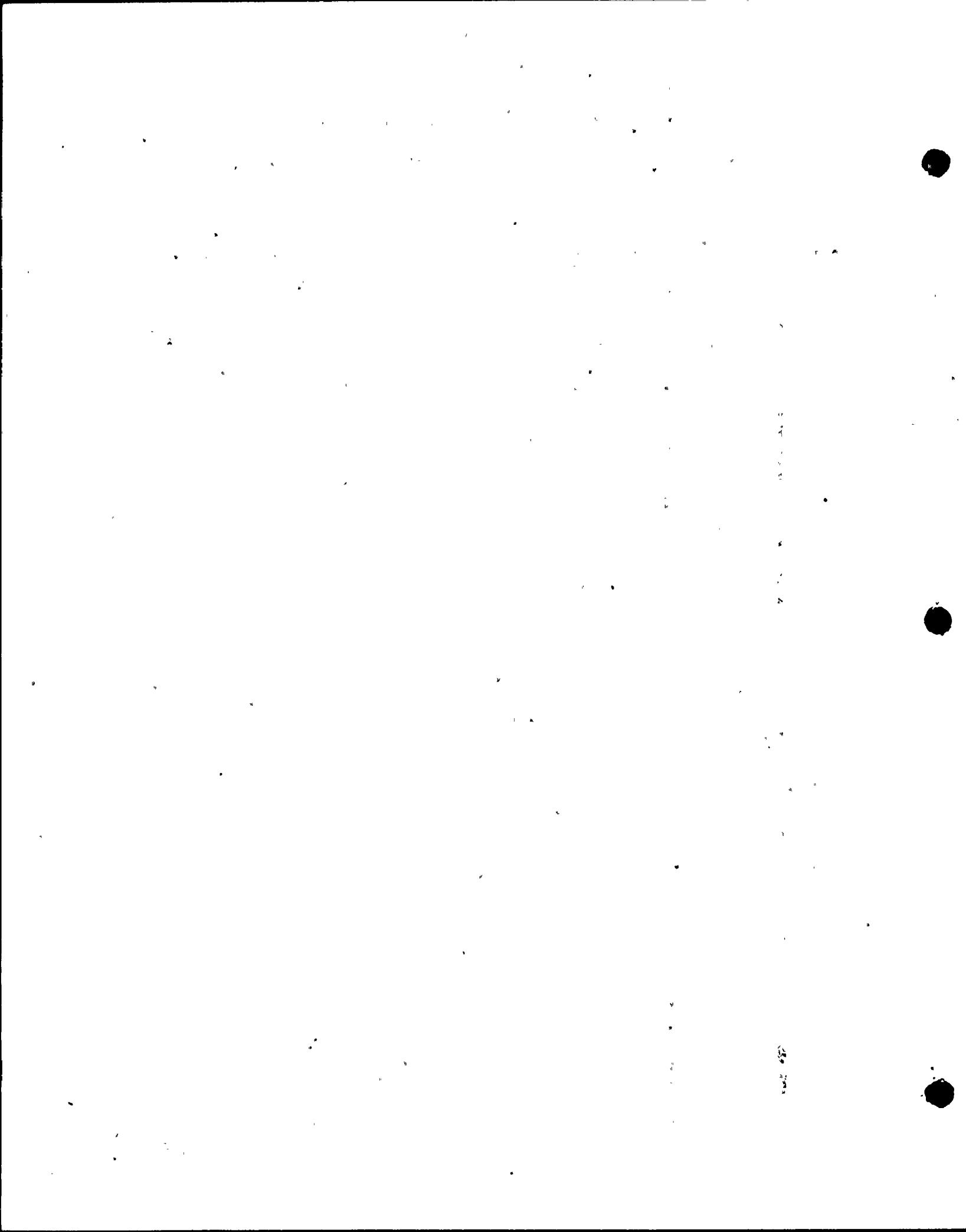
SITE: Turkey Point No. 4

STEAM GENERATOR: C Inlet

TEST FREQUENCY: 400 KHZ

DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
15	46	<20	O.D.	1/2" above tubesheet
15	52	<20	O.D.	1/2" above tubesheet
16	39	<20	O.D.	2" above tubesheet
16	40	<20	O.D.	1/2" above tubesheet
16	42	<20	O.D.	1/2" above tubesheet
16	43	<20	O.D.	1/2" above tubesheet
16	44	<20	O.D.	1" above tubesheet
16	45	<20	O.D.	1/2" above tubesheet
16	46	<20	O.D.	1/2" above tubesheet
16	47	<20	O.D.	1/2" above tubesheet
16	50	<20	O.D.	2" above tubesheet
16	53	<20	O.D.	1/2" above tubesheet
17	43	<20	O.D.	1/2" above tubesheet
17	45	<20	O.D.	1/2" above tubesheet
17	46	<20	O.D.	1/2" above tubesheet
17	47	<20	O.D.	1/2" above tubesheet
17	48	<20	O.D.	1/2" above tubesheet
17	49	<20	O.D.	1/2" above tubesheet
17	50	<20	O.D.	1/2" above tubesheet
17	51	<20	O.D.	1/2" above tubesheet
17	52	<20	O.D.	1/2" above tubesheet
18	47	<20	O.D.	1/2" above tubesheet
18	48	<20	O.D.	1/2" above tubesheet
18	49	<20	O.D.	1/2" above tubesheet
18	51	<20	O.D.	1/2" above tubesheet
18	52	<20	O.D.	1/2" above tubesheet
19	48	<20	O.D.	1/2" above tubesheet
19	51	<20	O.D.	1/2" above tubesheet



EDDY CURRENT TEST RESULTS

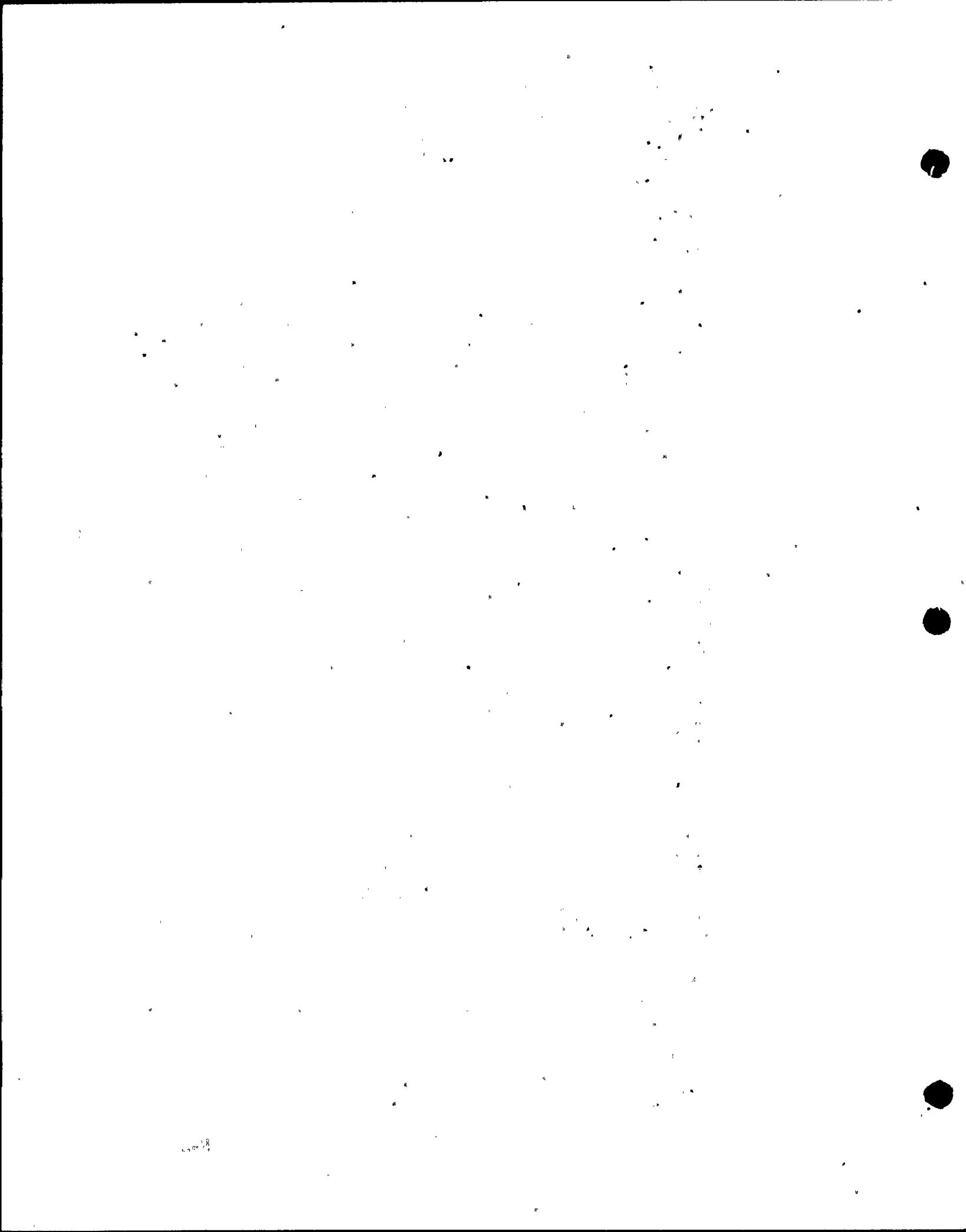
SITE: Turkey Point No. 4

STEAM GENERATOR: C Inlet

TEST FREQUENCY: 400 KHZ

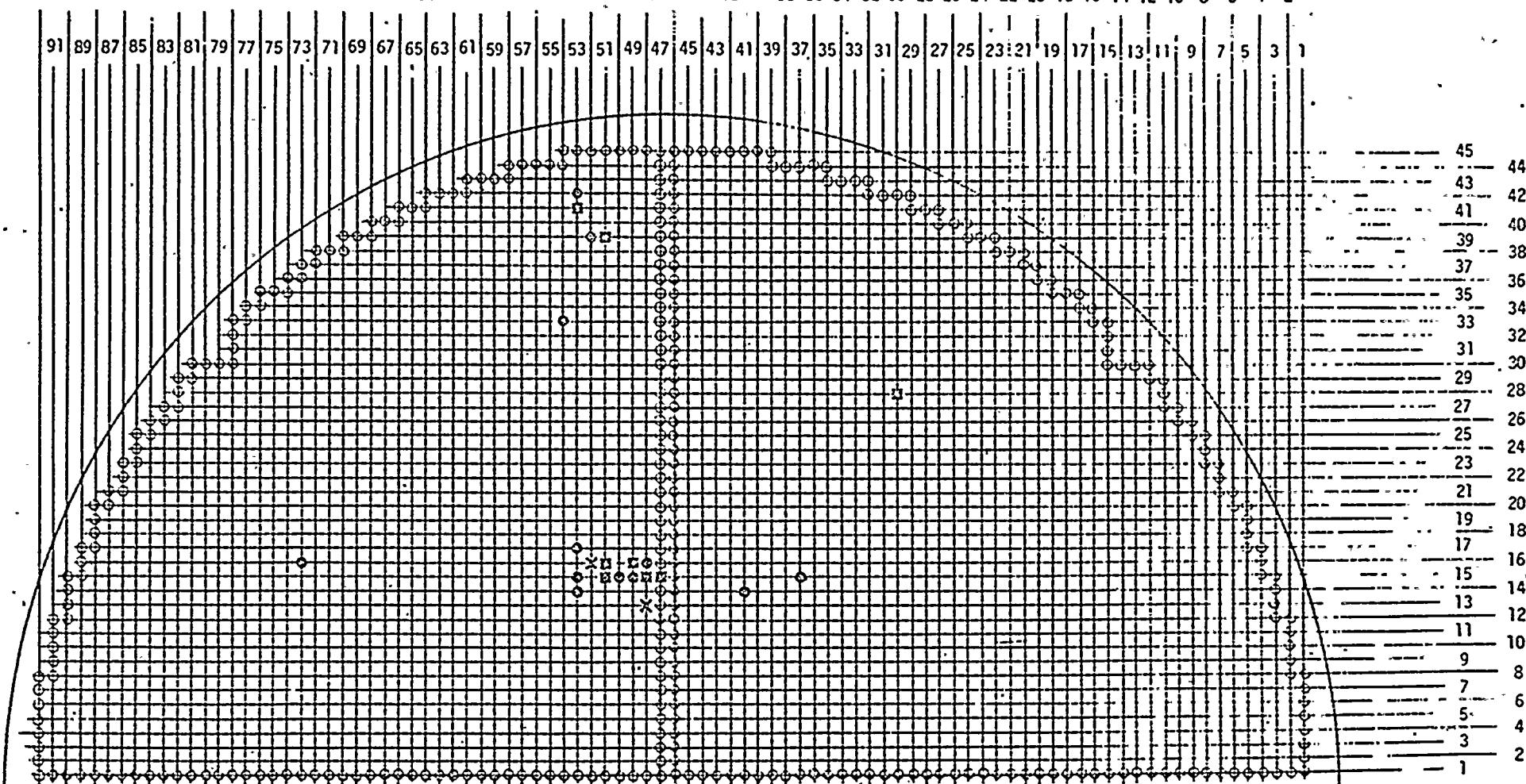
DATE: August/September 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
32	44	<20	O.D.	At top of tubesheet
35	50	<20	O.D.	1/2" above tubesheet
38	52	<20	O.D.	1/2" above tubesheet
40	52	<20	O.D.	1/2" above tubesheet



COLUMNS

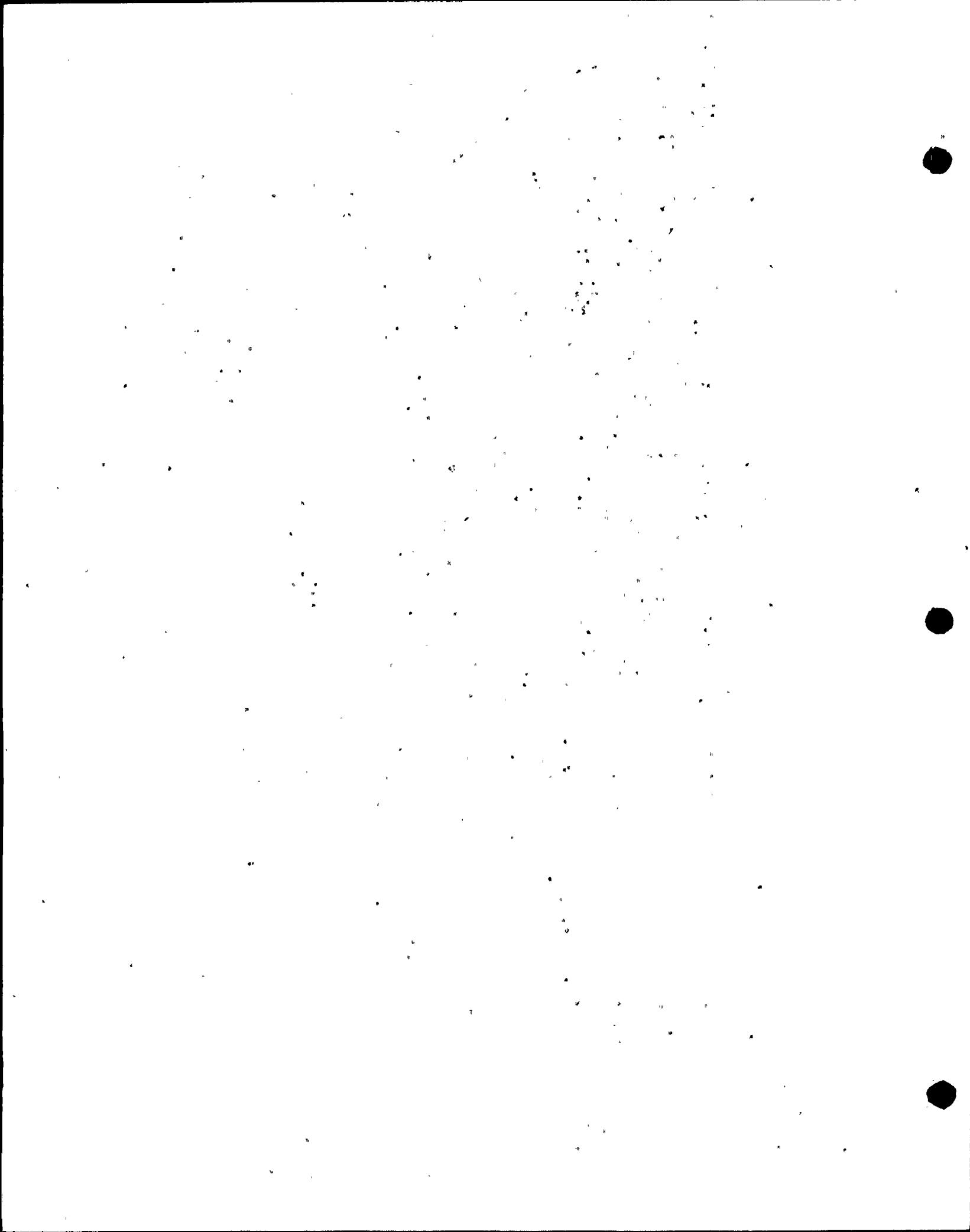
92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



MARGAY

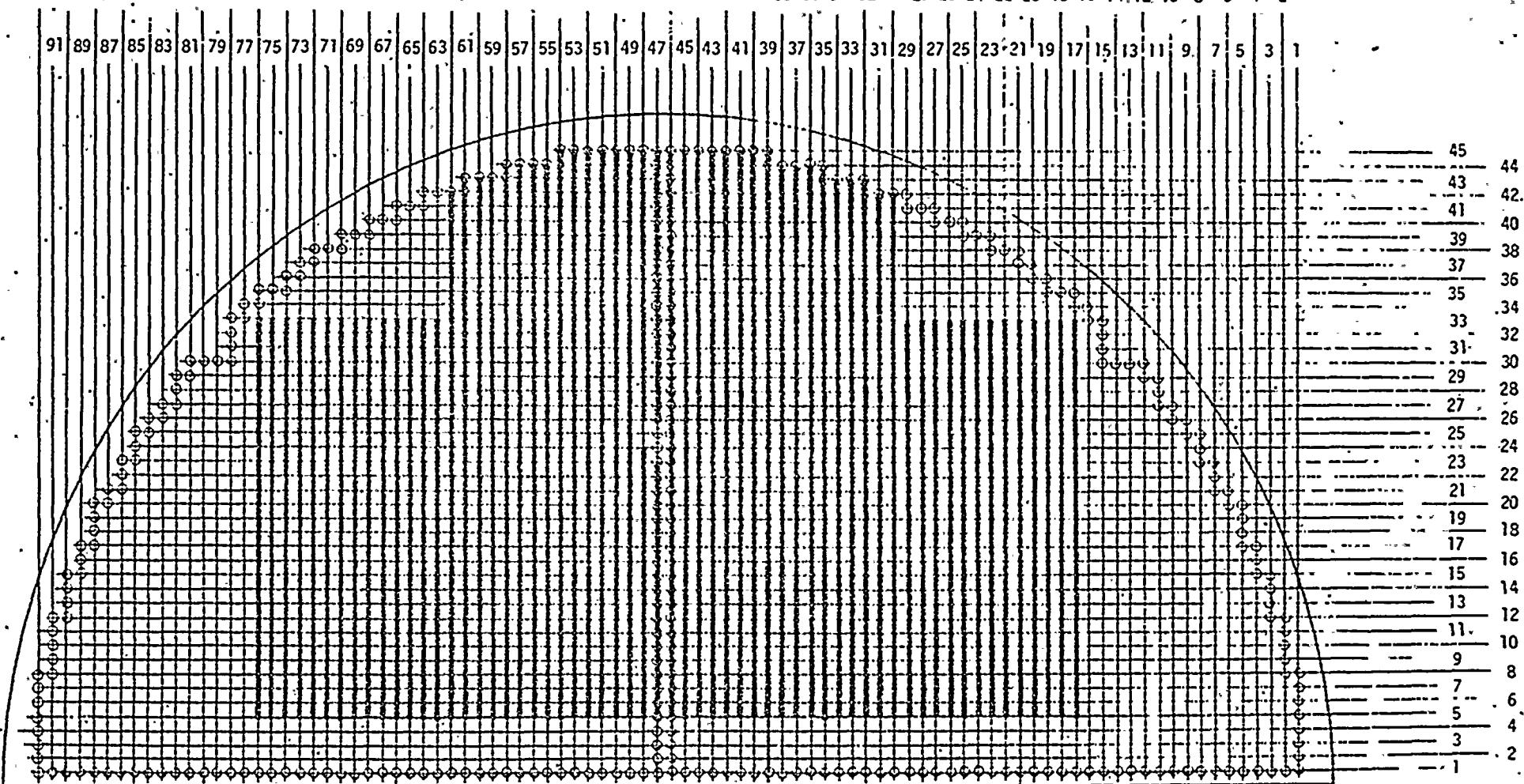
C-INLET
 □ 250%
 X 40-49%
 ◉ 21-30%

NOZZLE



COLUMNS

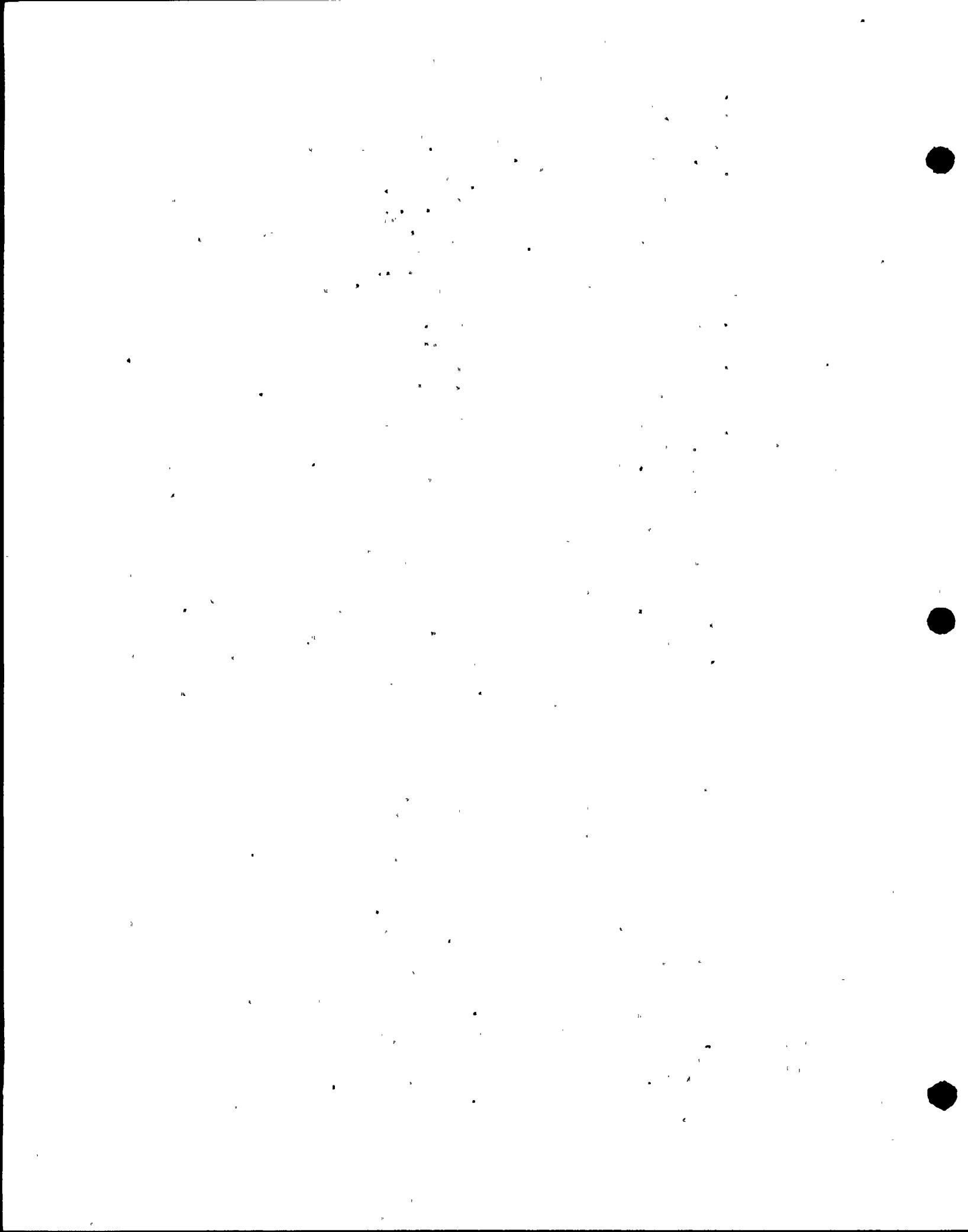
92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14, 12, 10 8 6 4 2



C-INLET

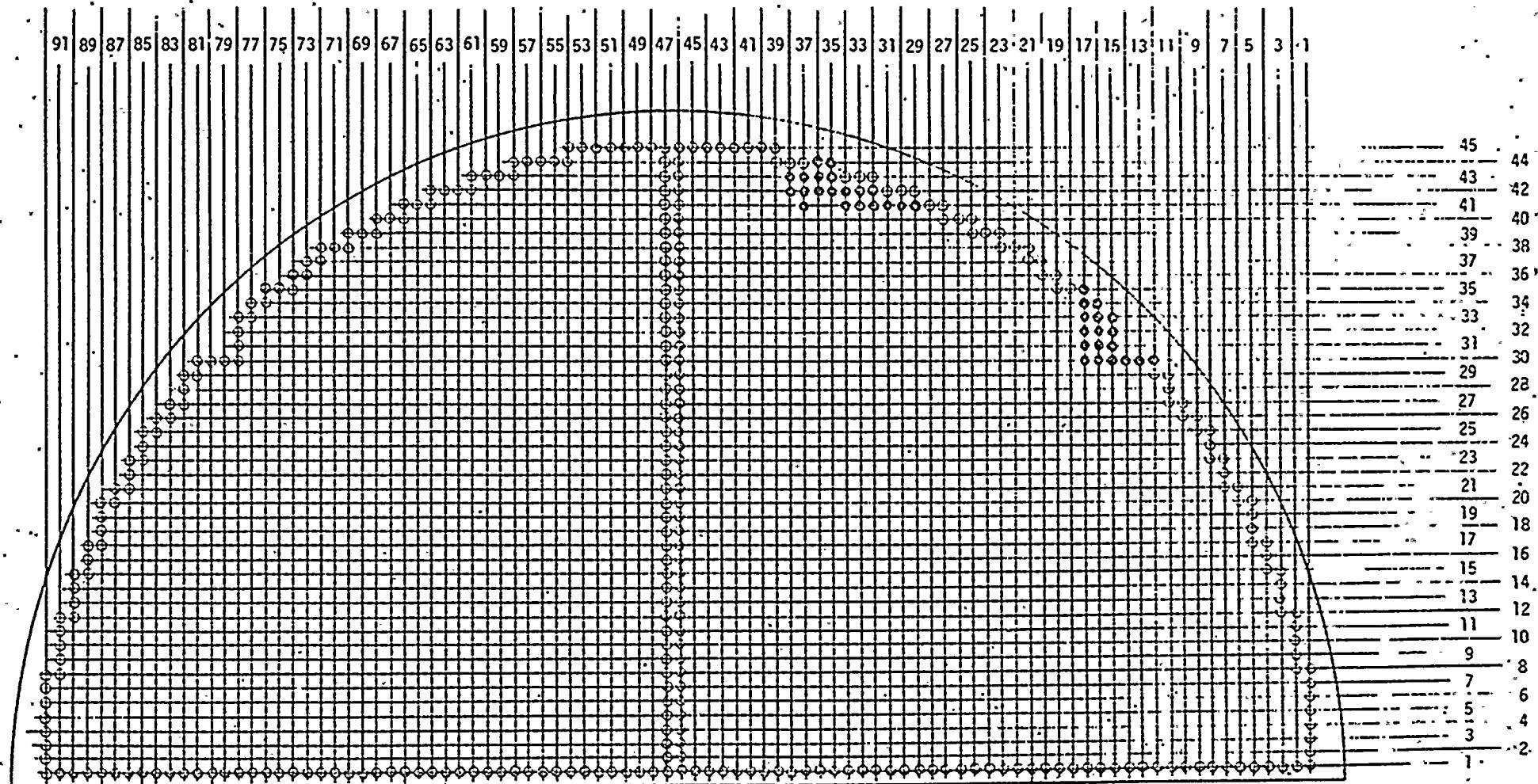
- INSPECTED TO THE FIRST SUPPORT
- INSPECTED COMPLETELY AROUND U-BEND
- ◊ INSPECTED AS FAR AS POSSIBLE AROUND U-BEND

ROWS



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32-30 28 26 24 22 20 18 16 14 12 10 8 6, 4 2

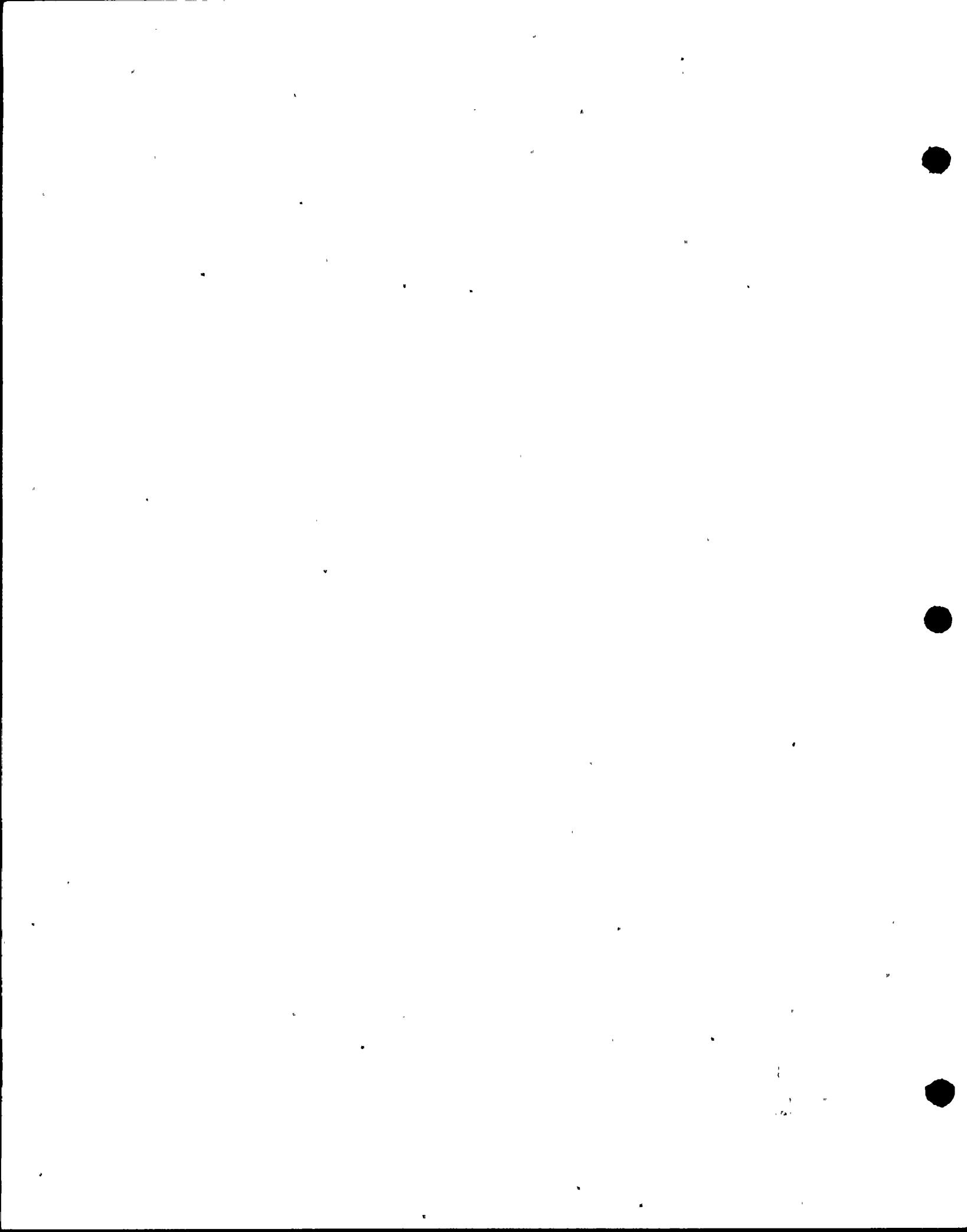


C-CUTLET

INSPECTED TO THE FIRST SUPPORT
 ● INSPECTED COMPLETELY AROUND U-BEND
 ○ INSPECTED AS FAR AS POSSIBLE AROUND U-BEND

← MANWAY

NOZZLE →



APPENDIX D-4

4
5
6

LIST OF TUBES EXPLOSIVELY PLUGGED

Steam Generator A

	ROW	COL		ROW	COL
1.	8	44	18.	27	37
2.	12	40	19.	28	36
3.	15	44	20.	28	37
4.	16	37	21.	28	38
5.	16	46	22.	28	39
6.	16	58	23.	28	40
7.	22	41	24.	28	41
8.	24	41	25.	28	43
9.	25	37	26.	28	47
10.	25	41	27.	29	38
11.	25	47	28.	29	43
12.	25	56	29.	30	40
13.	26	29	30.	30	51
14.	27	29	31	30	57
15.	27	30	32.	32	42
16.	27	35	33.	32	46
17.	27	36	34.	34	55

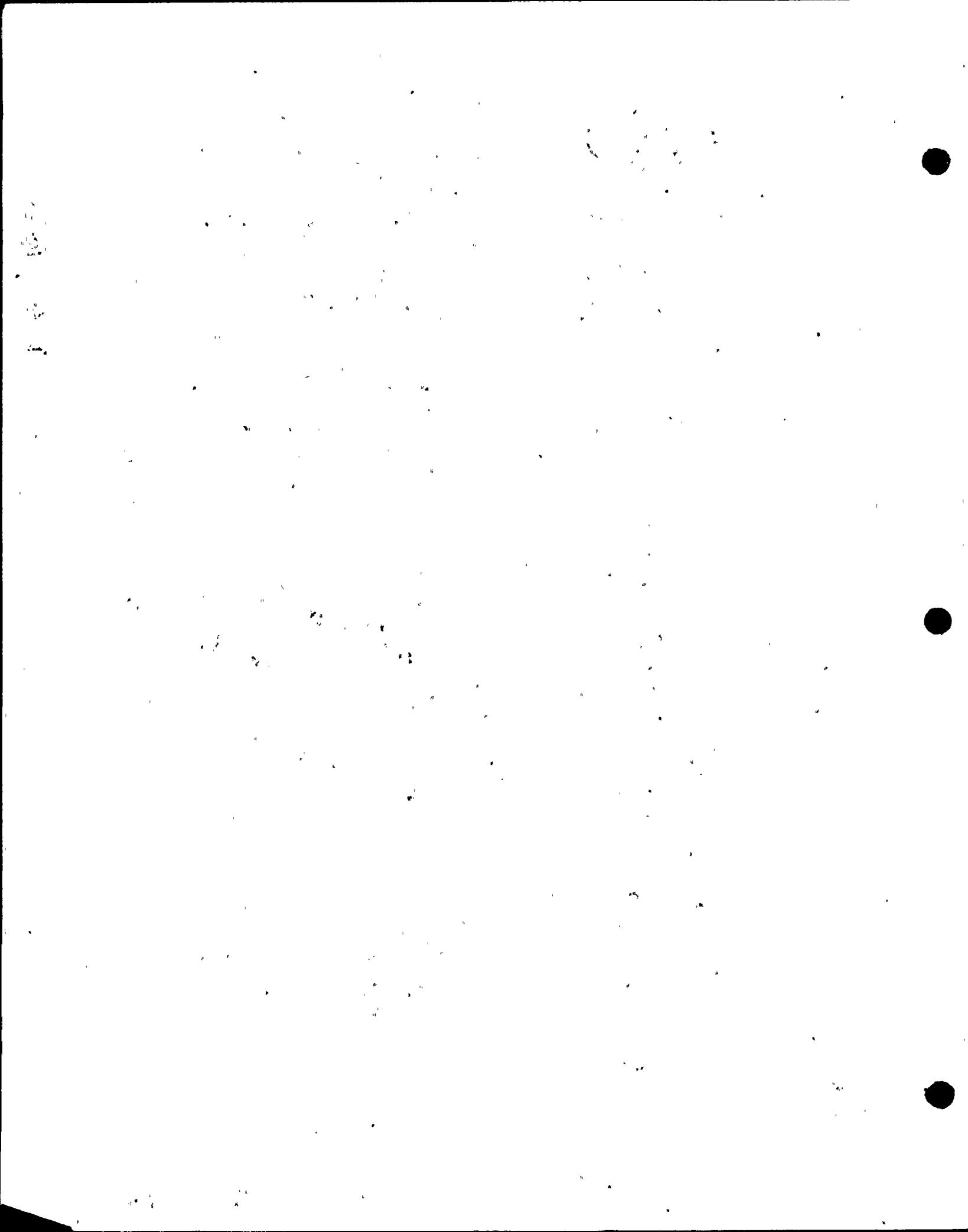
Steam Generator B

	ROW	COL		ROW	COL
1.	6	64	22.	28	30
2.	11	48	23.	28	57
3.	13	75	24.	29	30
4.	16	38	25.	29	57
5.	22	45	26.	29	59
6.	24	28	27.	30	28
7.	25	20	28.	30	37
8.	25	27	29.	30	42
9.	25	28	30.	30	54
10.	25	29	31.	32	21
11.	26	25	32.	32	50
12.	26	26	33.	32	53
13.	26	27	34.	32	54
14.	26	28	35.	32	56
15.	26	29	36.	33	42
16.	27	27	37.	33	53
17.	27	28	38..	33	54
18.	27	29	29..	34	43
19.	27	30	40.	34	54
20.	27	31	41.	39	54
21.	28	28	42.	42	53
			43.	43	35

Steam Generator C

	ROW	COL
1.	15	47
2.	15	48
3.	15	51
4.	16	49
5.	16	51
6.	28	30
7.	39	51
8.	41	53

D-4
104



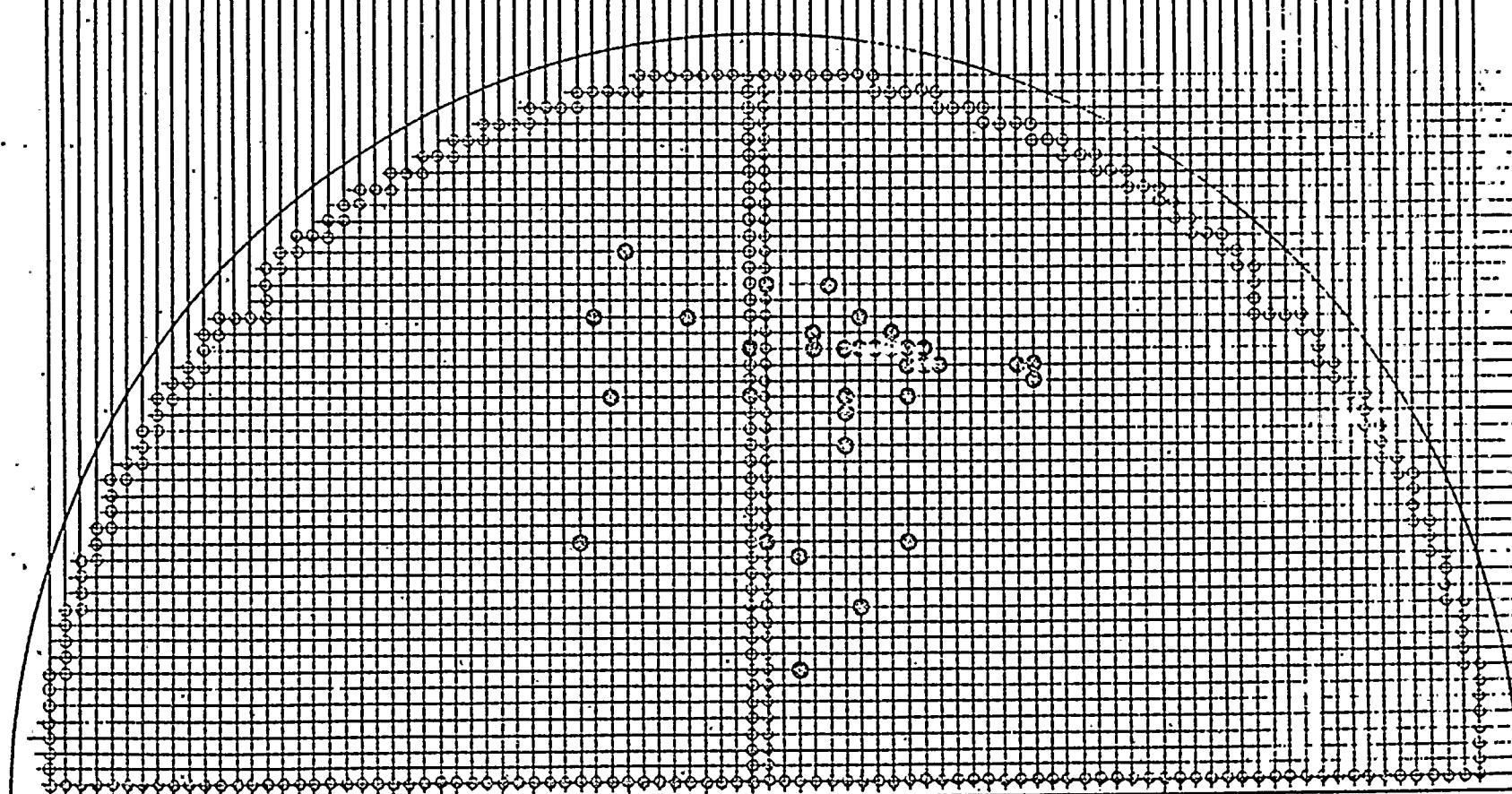
COLUMNS

92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
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91	89	87	85	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1
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ROWS

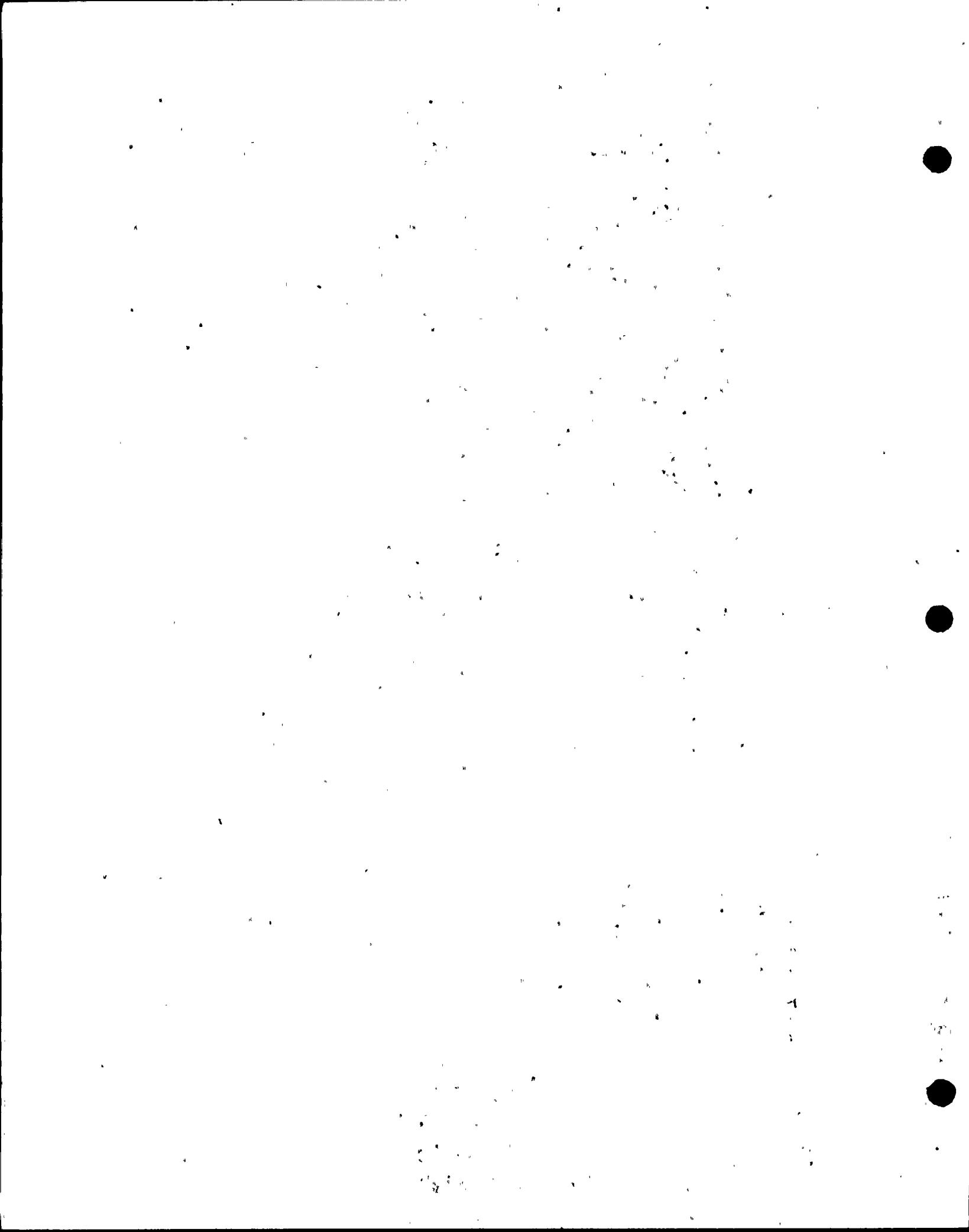


← MANWAY

A STEAM GENERATOR
TUBES PLUGGED

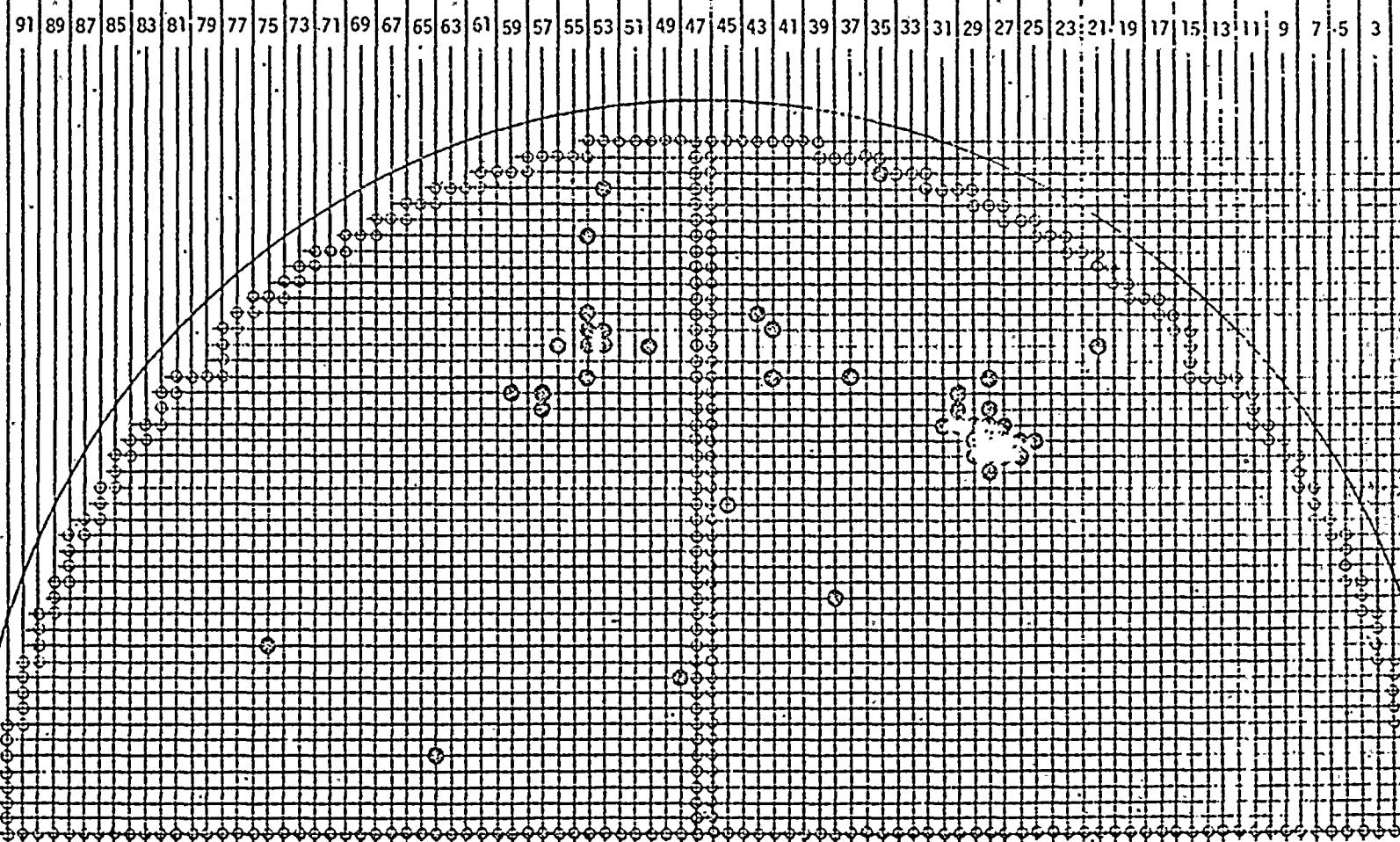
NOZZLE →

D-4 20F 4-



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



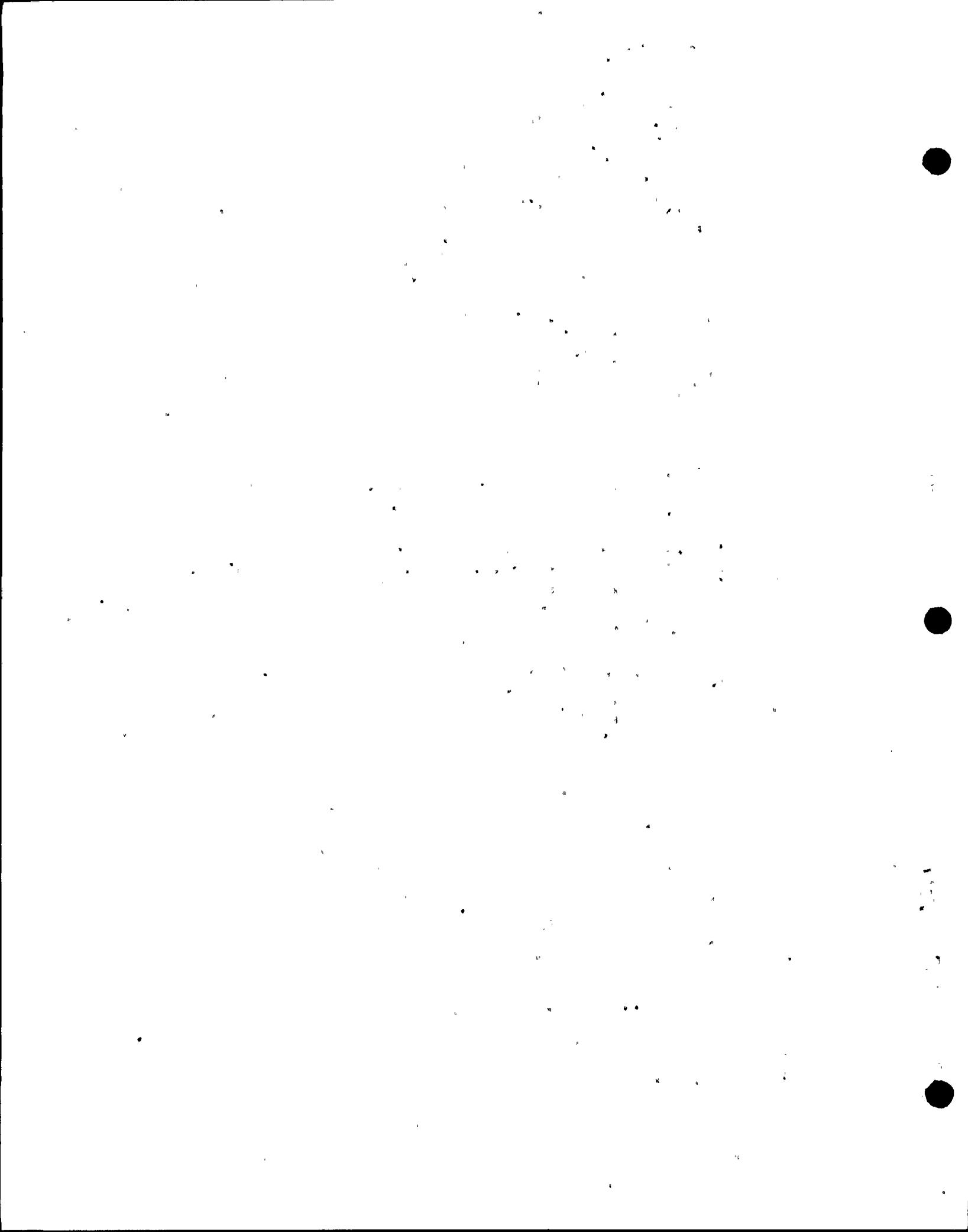
← MANWAY

B STEAM GENERATOR
TUBES PLUGGED

NOZZLE →

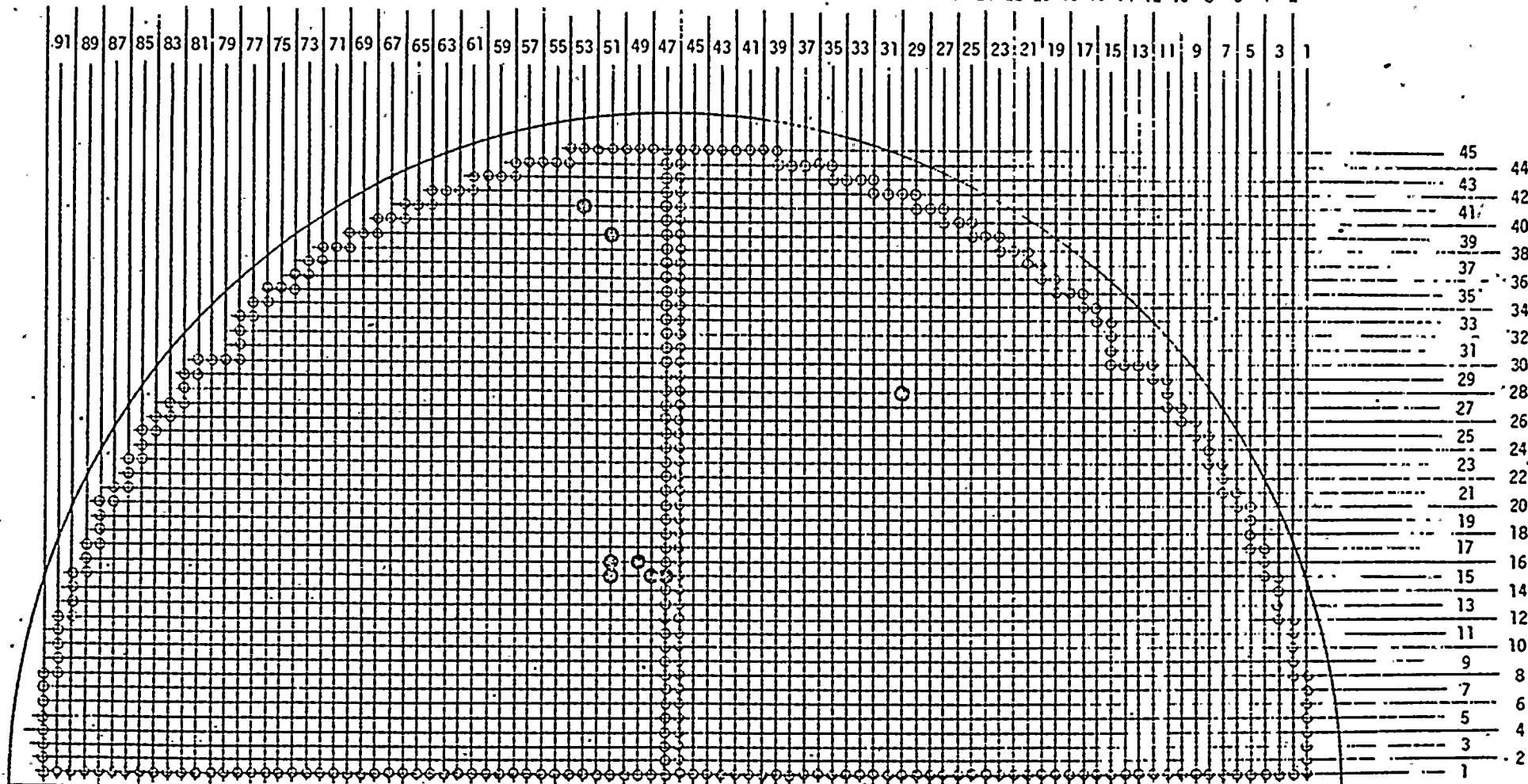
D-4 3 OF 4

ROWS

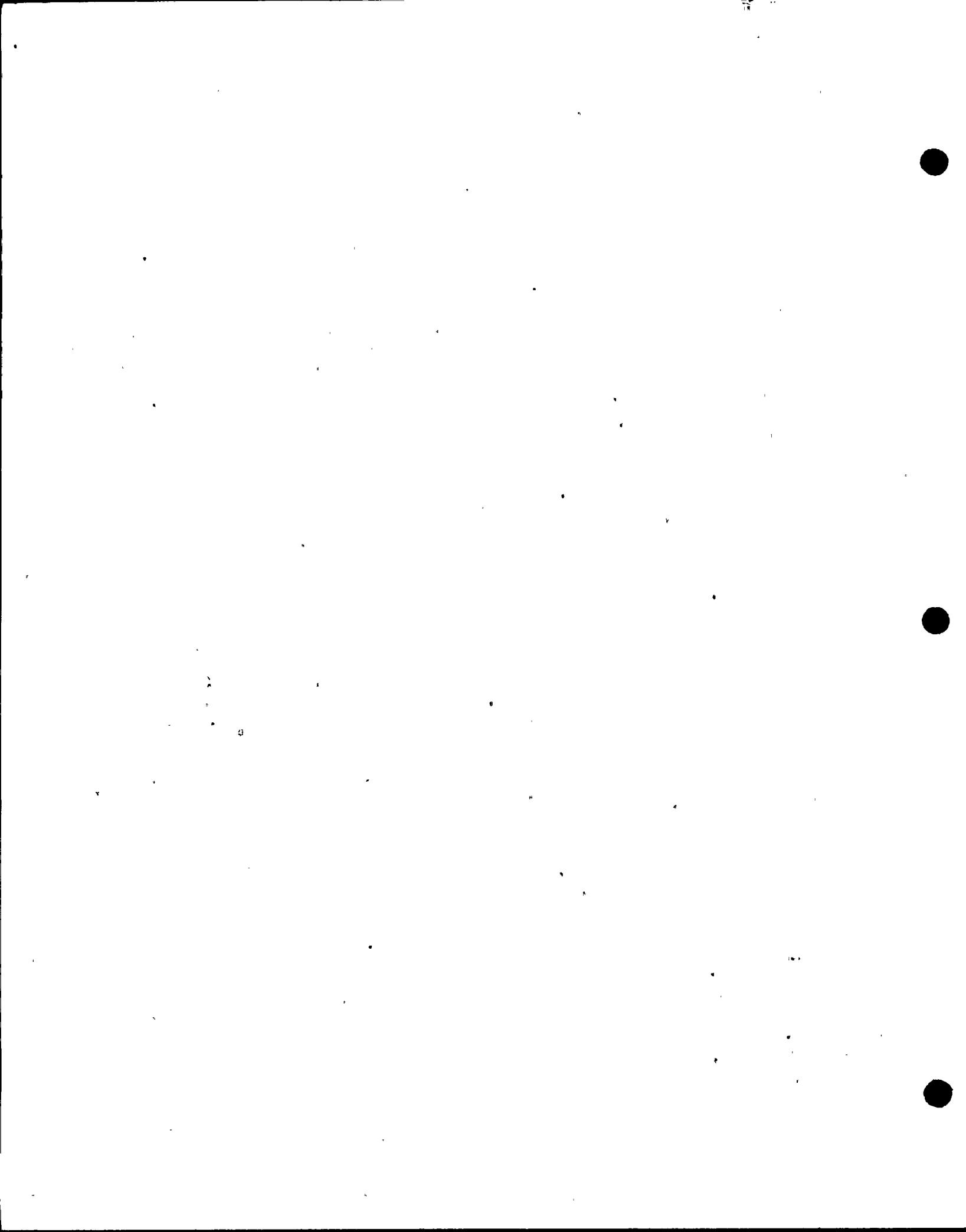


COLUMNS

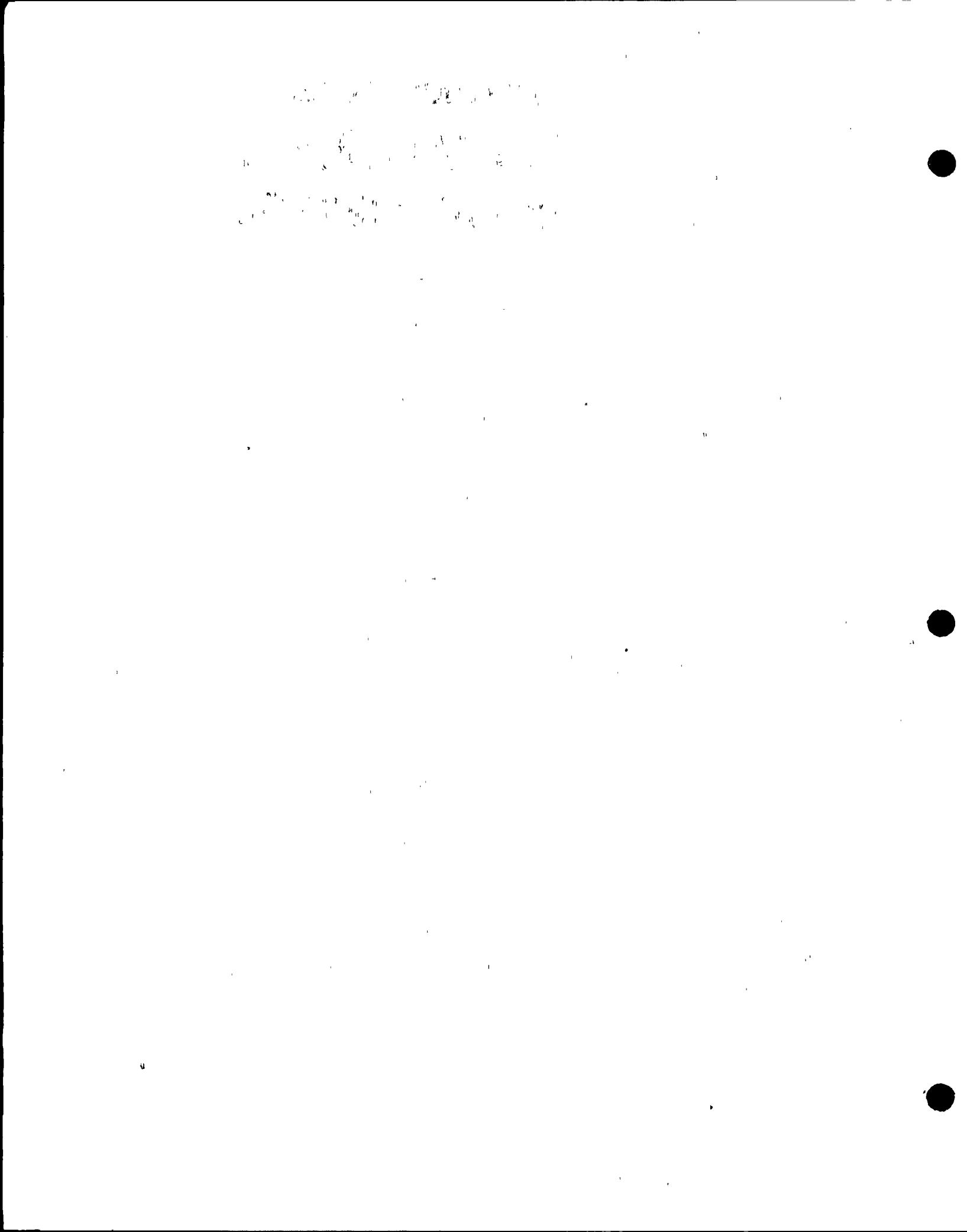
92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	35	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
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D-4 4 of 4

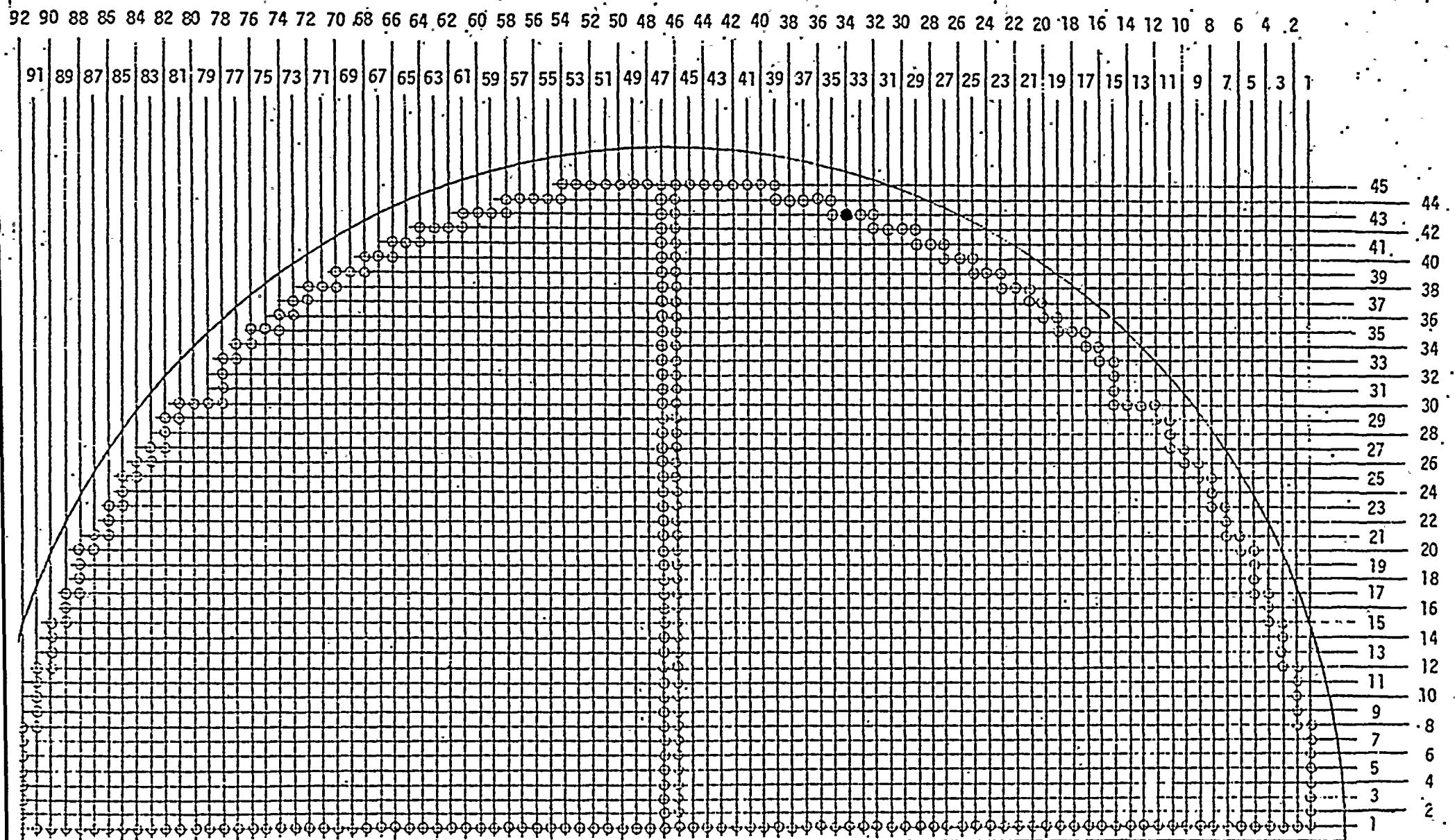


APPENDIX E



Location of Leaking Tube

COLUMNS



← MANNAY

NOZZLE →

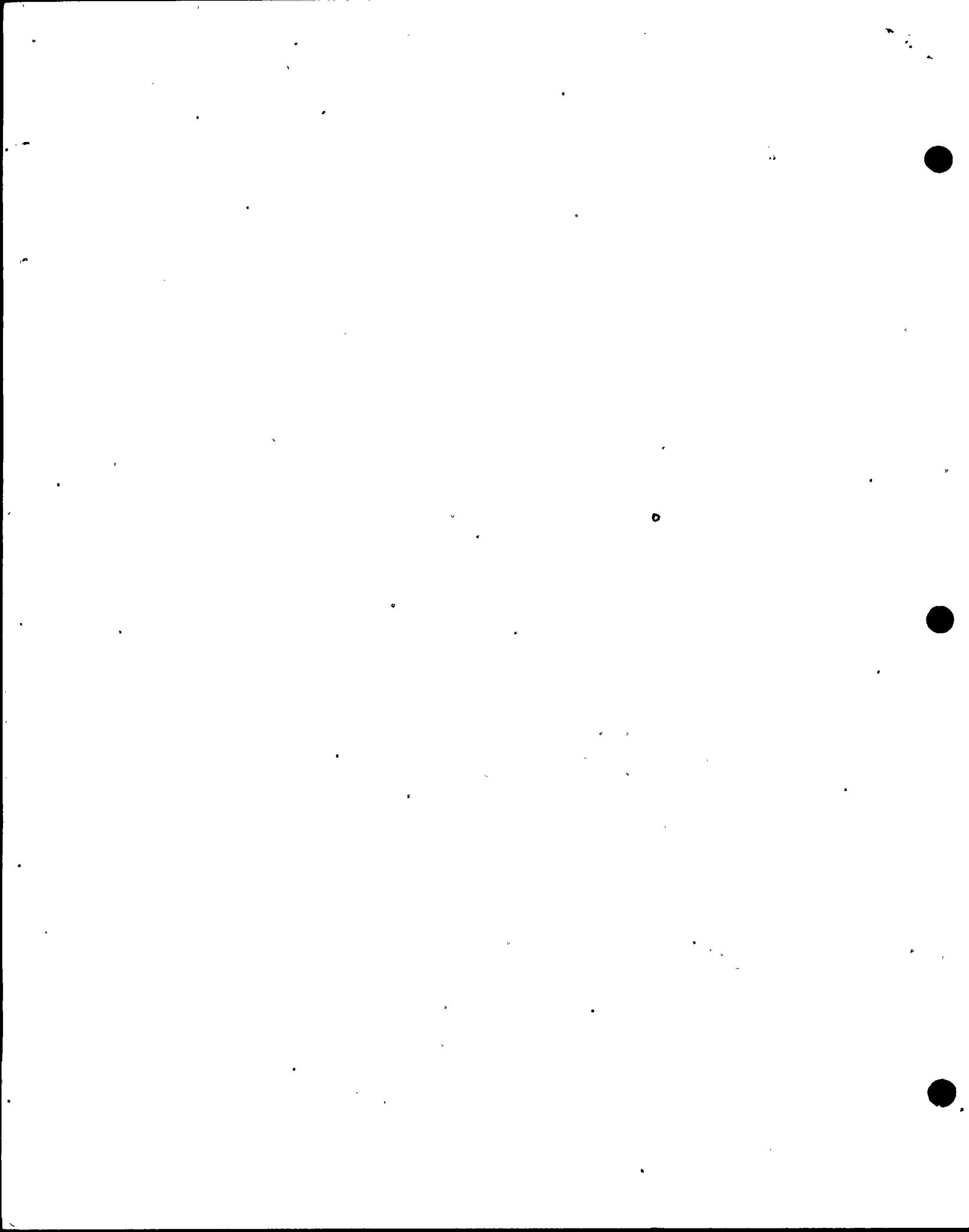
FLORIDA POWER & LIGHT CO.
TURKEY POINT UNIT #3

STEAM GENERATOR

A

APPENDIX E

ROWS

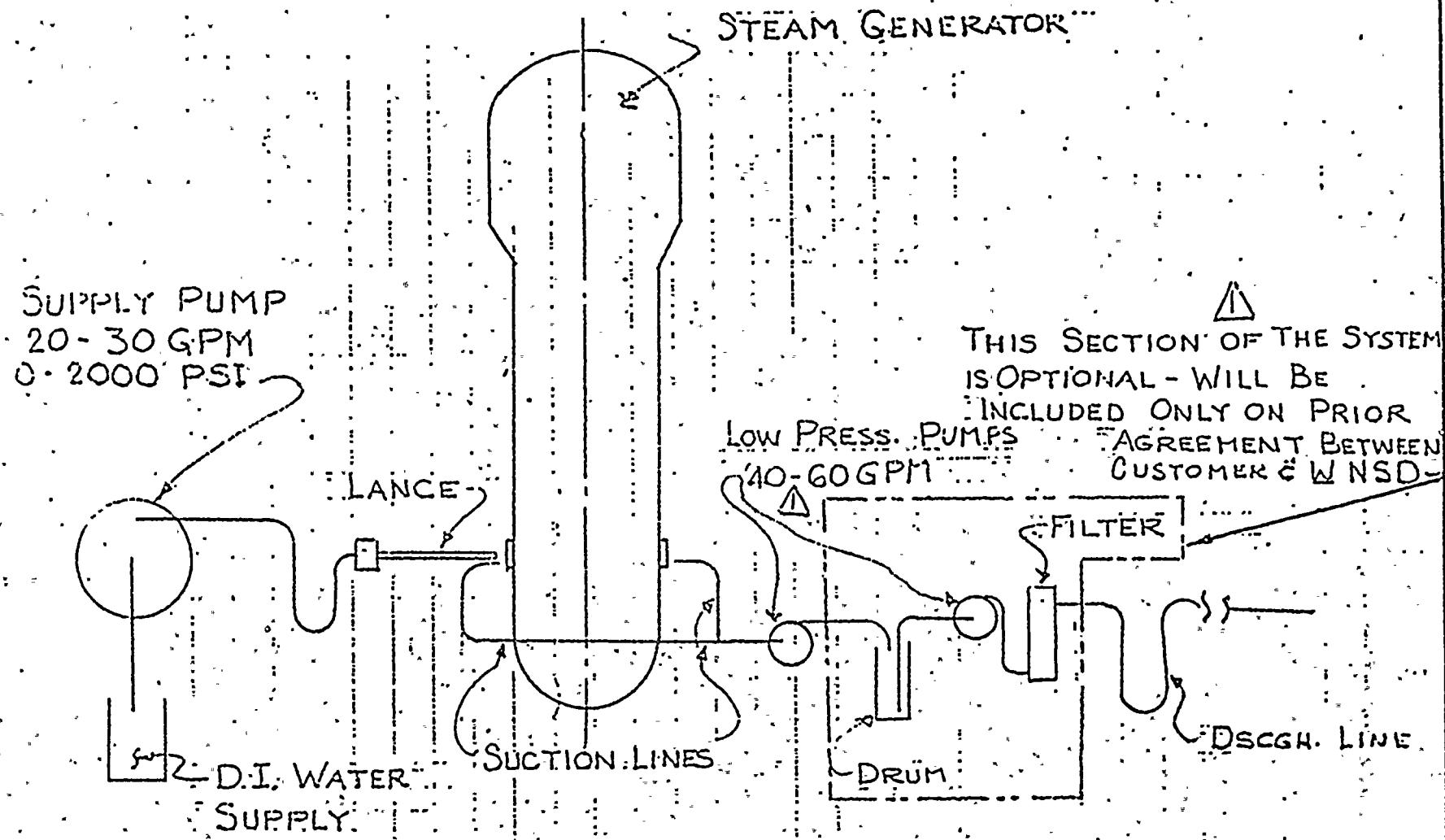


APPENDIX F

$$A = \begin{pmatrix} 0 & 1 & 0 \\ 0 & 0 & 1 \\ 1 & 0 & 0 \end{pmatrix}$$

$$B = \begin{pmatrix} 0 & 1 & 0 \\ 0 & 0 & 1 \\ 1 & 0 & 0 \end{pmatrix}$$

$$C = \begin{pmatrix} 0 & 0 & 1 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \end{pmatrix}$$

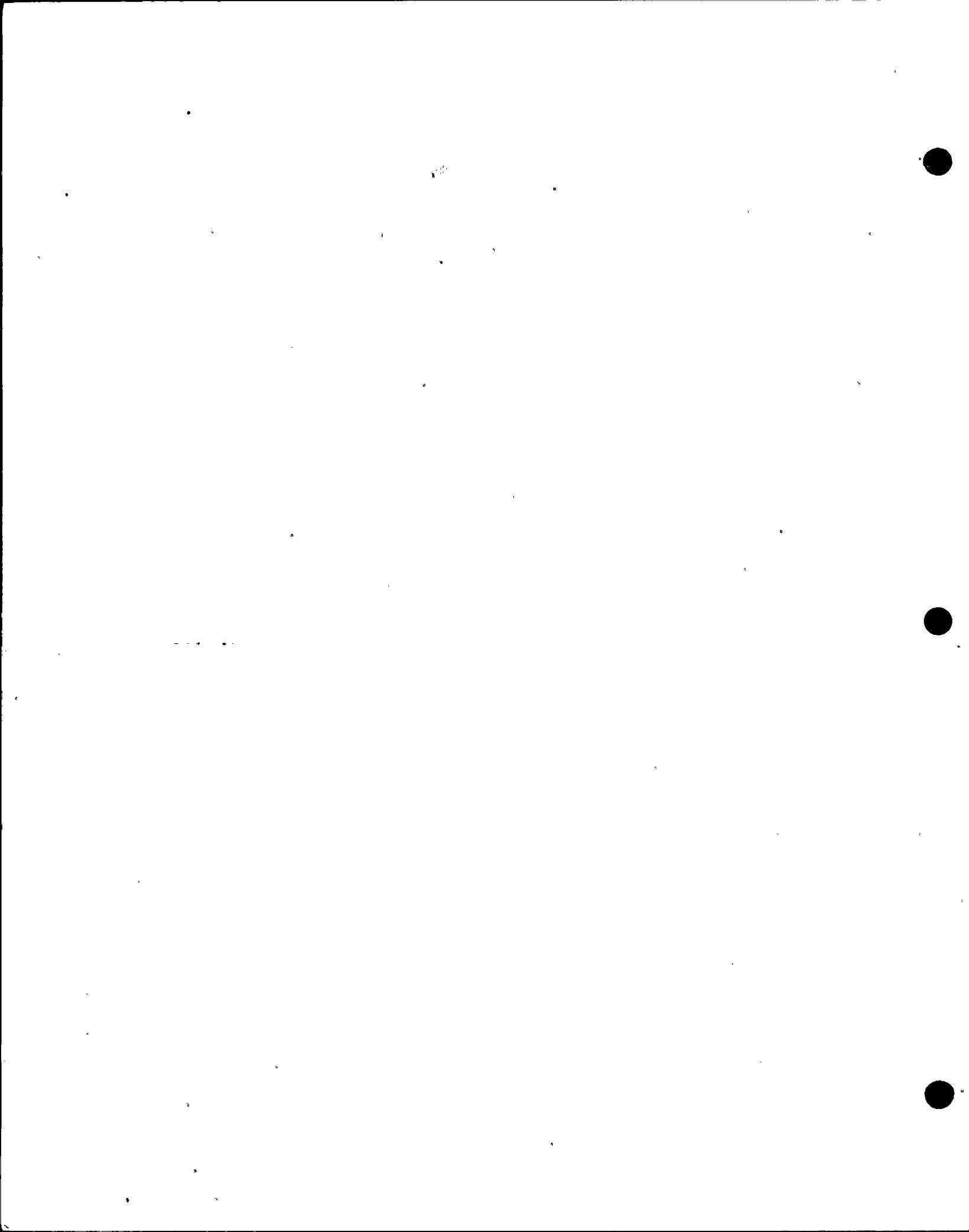


TUBE SHEET LANCING SCHEMATIC

Q3 - 1972 (1) 1000 X 1000

APPENDIX G-1

Steam Generator A



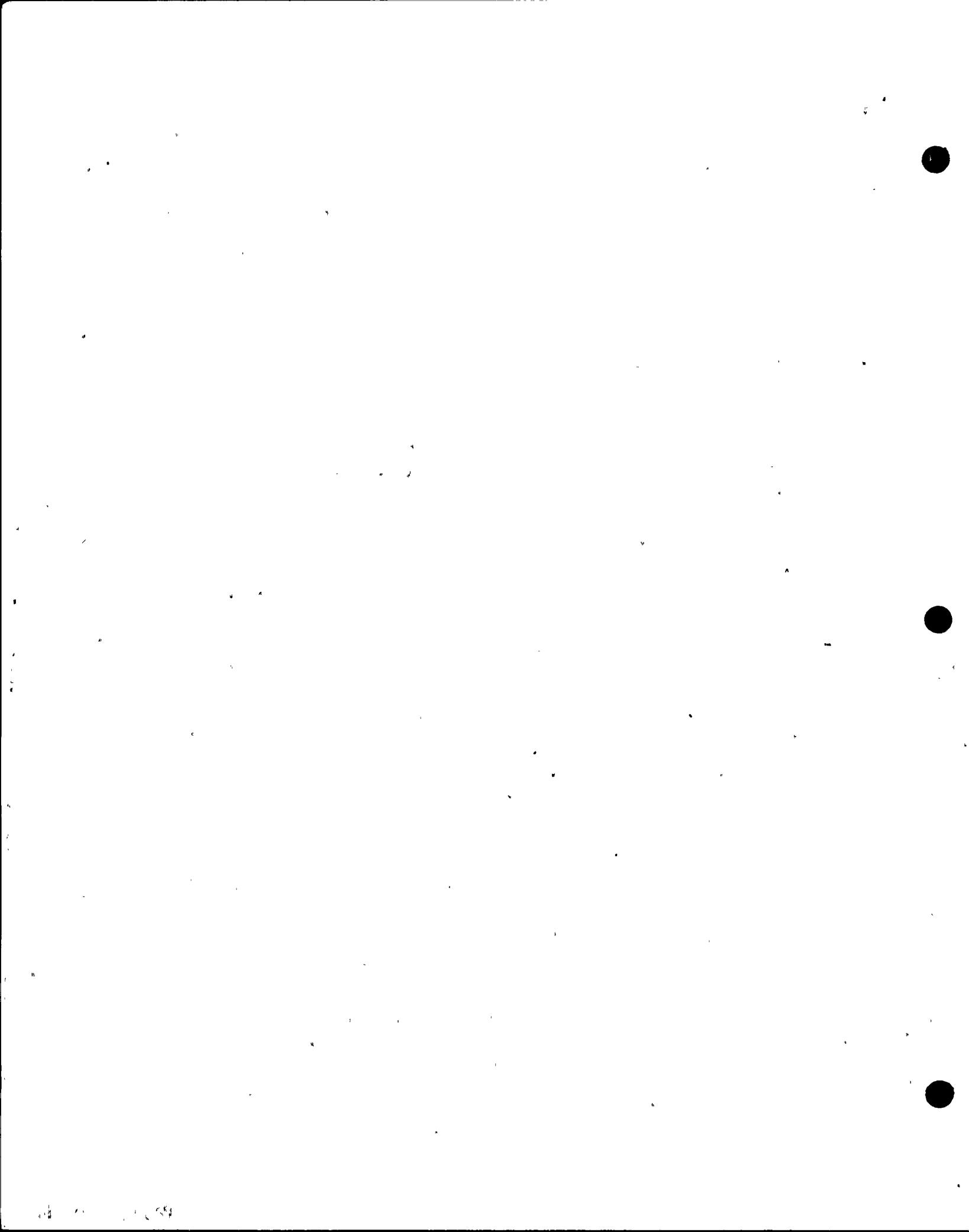
EDDY CURRENT TEST RESULTS

SITE: TURKEY Point UNIT 3
TEST FREQUENCY: 400 KHz

STEAM GENERATOR "A" INLET

DATE: Nov, 1974

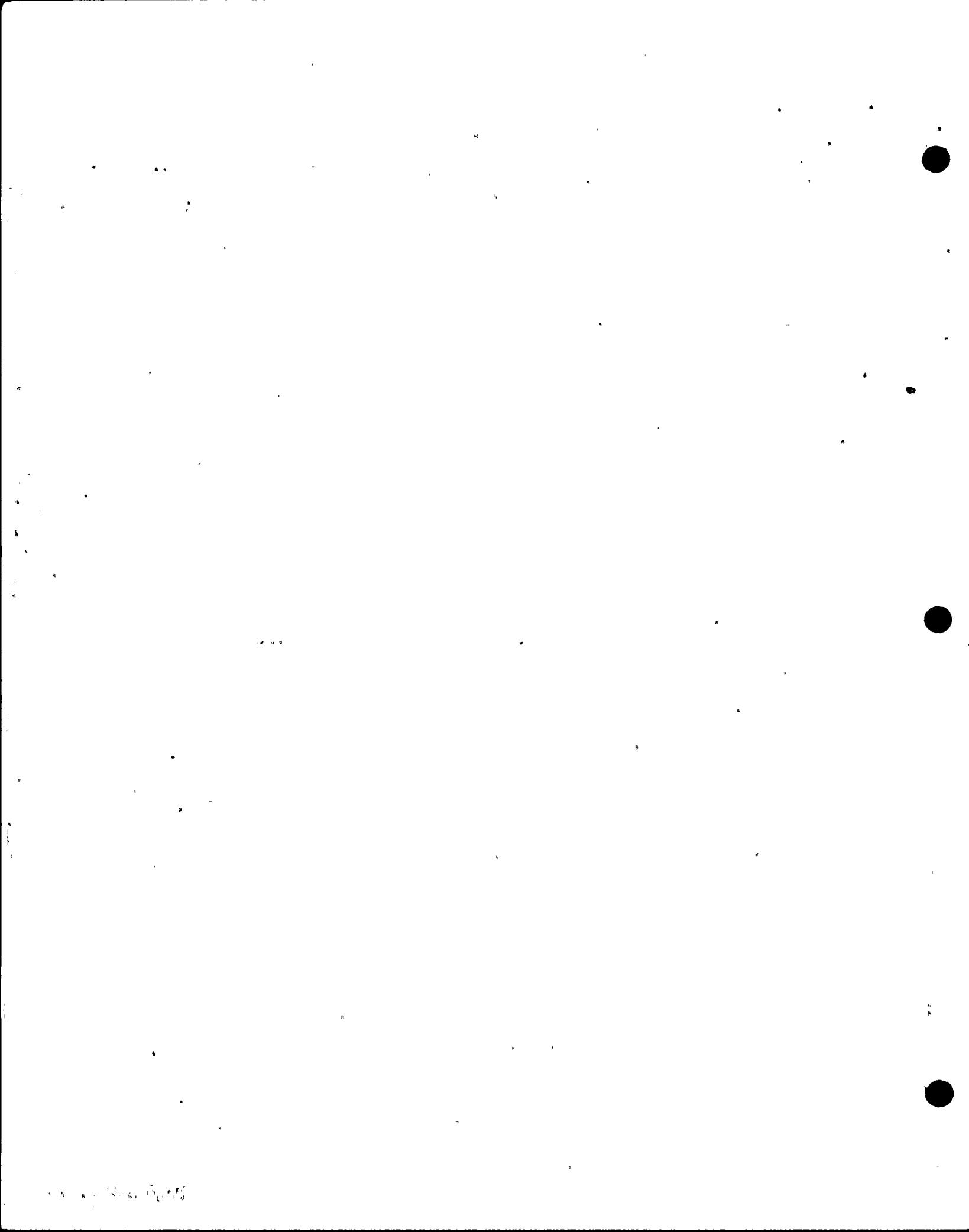
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
8	90	9.6	O.D.	At 3 rd SUPPORT
9	25	37	O.D.	1" ABOVE TUBESHEET
10	25	<20	O.D.	At TOP OF TUBESHEET
12	30	<20	O.D.	" " " "
12	31	<20	O.D.	" " " "
12	32	<20	O.D.	" " " "
12	33	<20	O.D.	" " " "
13	29	<20	O.D.	" " " "
13	30	<20	O.D.	" " " "
13	31	<20	O.D.	" " " "
13	32	<20	O.D.	" " " "
13	33	<20	O.D.	" " " "
13	34	<20	O.D.	" " " "
13	63	<20	O.D.	" " " "
14	28	<20	O.D.	" " " "
14	29	<20	O.D.	" " " "
14	30	<20	O.D.	" " " "
14	31	<20	O.D.	1" ABOVE TUBESHEET
14	32	<20	O.D.	" " " "
14	33	<20	O.D.	" " " "
14	34	<20	O.D.	" " " "
14	35	<20	O.D.	" " " "
14	62	<20	O.D.	At TOP OF TUBESHEET
14	63	<20	O.D.	" " " "
14	64	<20	O.D.	" " " "
14	66	<20	O.D.	" " " "
14	67	<20	O.D.	" " " "



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "A" INLET
DATE: NOV, 1974

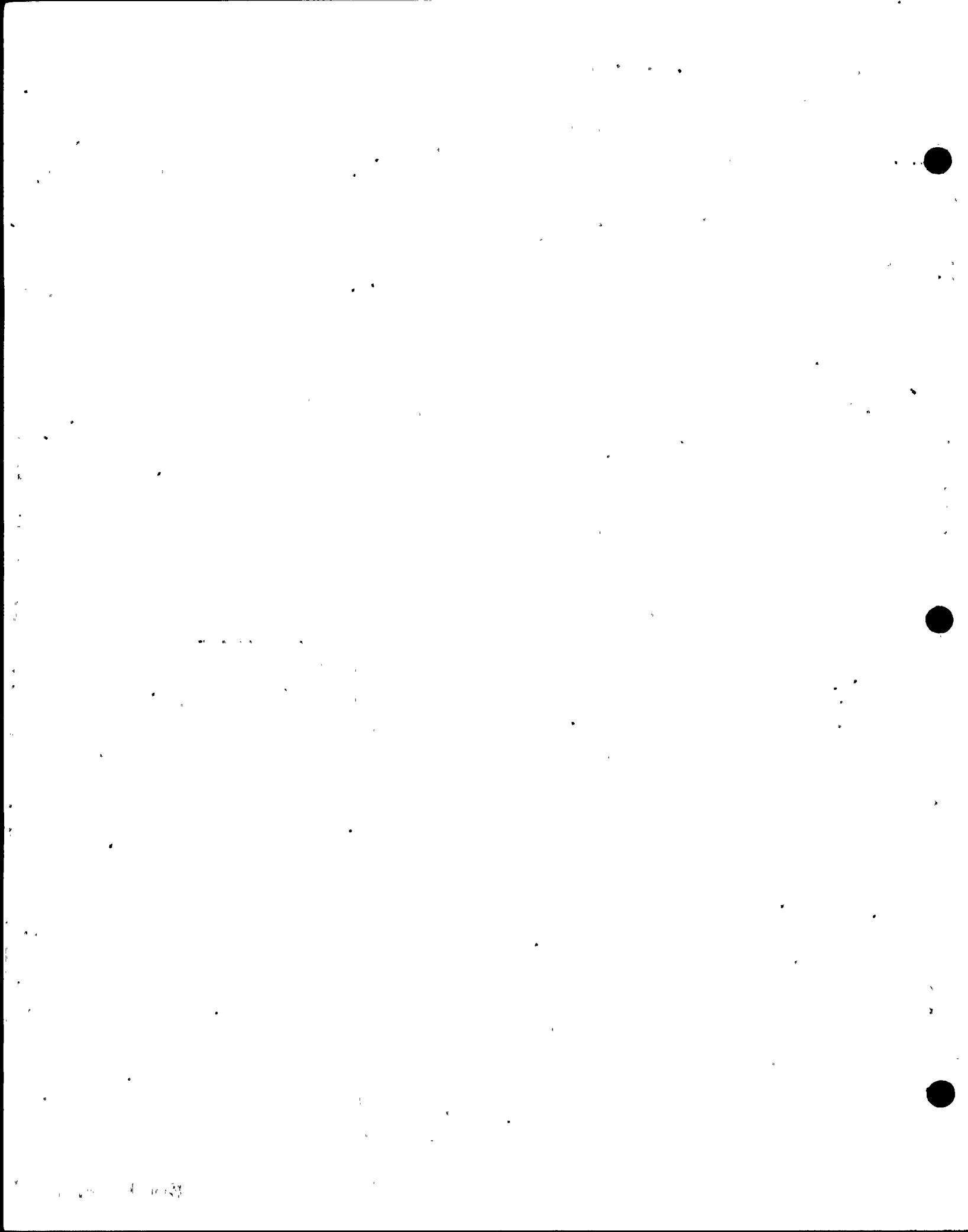
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
15	28	<20	O.D.	AT TOP OF TUBESHEET
15	29	<20	O.D.	" " " "
15	30	23	O.D.	1/2" ABOVE TUBESHEET
15	31	36	O.D.	1" " "
15	32	<20	O.D.	" " " "
15	33	<20	O.D.	" " " "
15	34	<20	O.D.	" " " "
15	35	<20	O.D.	" " " "
15	36	<20	O.D.	1/2" " " "
15	38	<20	O.D.	AT TOP OF TUBESHEET
15	61	67	O.D.	1" ABOVE TUBESHEET
15	62	<20	O.D.	AT TOP OF " "
15	63	<20	O.D.	" " " "
15	64	<20	O.D.	" " " "
15	66	<20	O.D.	" " " "
15	67	<20	O.D.	" " " "
16	28	<20	O.D.	" " " "
16	29	68	O.D.	" " " "
16	30	<20	O.D.	" " " "
16	31	<20	O.D.	1" ABOVE TUBESHEET
16	32	<20	O.D.	" " "
16	33	<20	O.D.	" " "
16	34	41	O.D.	" " " "
16	35	28	O.D.	" " "
16	36	<20	O.D.	" " "
16	37	<20	O.D.	AT TOP OF TUBESHEET
16	38	<20	O.D.	" " " "



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "A" INLET
DATE: Nov., 1974

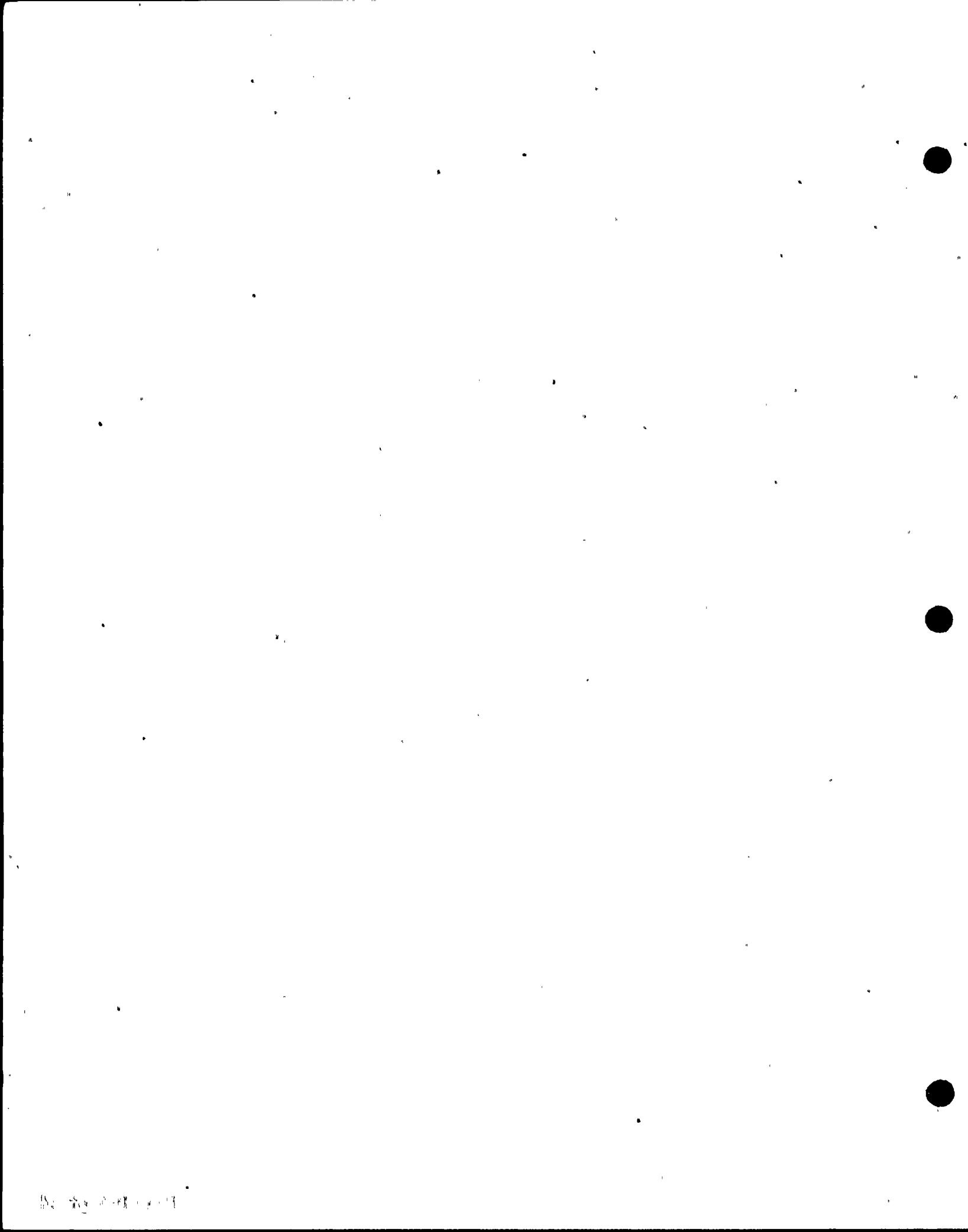
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
16	41	<20	O.D.	AT TOP OF TUBESHEET
16	42	<20	O.D.	" " "
16	43	<20	O.D.	" " "
16	44	<20	O.D.	" " "
16	45	<20	O.D.	" " "
16	46	<20	O.D.	" " "
16	47	<20	O.D.	" " "
16	48	<20	O.D.	" " "
16	49	<20	O.D.	" " "
16	50	<20	O.D.	" " "
16	55	<20	O.D.	" " "
16	56	<20	O.D.	" " "
16	57	<20	O.D.	" " "
16	58	<20	O.D.	" " "
16	60	<20	O.D.	" " "
16	61	<20	O.D.	" " "
16	62	<20	O.D.	" " "
17	29	44	O.D.	" " "
17	30	43	O.D.	1" A.BOVE TUBESHEET
17	31	27	O.D.	" " "
17	32	<20	O.D.	" " "
17	33	<20	O.D.	" " "
17	34	<20	O.D.	" " "
17	35	<20	O.D.	" " "
17	36	<20	O.D.	" " "
17	37	<20	O.D.	" " "
17	38	<20	O.D.	" " "



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "A" INLET
DATE: Nov. 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
17	39	<20	O.D.	1" ABOVE TUBESHEET
17	40	<20	O.D.	" " "
17	41	<20	O.D.	" " "
17	42	<20	O.D.	AT TOP OF TUBESHEET
17	43	<20	O.D.	" " " "
17	44	<20	O.D.	2" ABOVE TUBESHEET
17	45	<20	O.D.	" " " "
17	46	<20	O.D.	AT TOP OF TUBESHEET
17	47	<20	O.D.	" " " "
17	48	<20	O.D.	" " " "
17	49	<20	O.D.	" " " "
17	50	<20	O.D.	" " " "
17	51	<20	O.D.	" " " "
17	52	<20	O.D.	" " " "
17	53	<20	O.D.	" " " "
17	54	<20	O.D.	" " " "
17	55	<20	O.D.	" " " "
17	56	<20	O.D.	" " " "
17	57	<20	O.D.	" " " "
17	58	<20	O.D.	" " " "
17	63	.64	O.D.	1" ABOVE TUBESHEET
17	67	<20	O.D.	" " " "
18	29	<20	O.D.	AT TOP OF TUBESHEET
18	30	<20	O.D.	1" ABOVE TUBESHEET
18	31	<20	O.D.	" " " "
18	32	<20	O.D.	" " " "
18	33	<20	O.D.	AT TOP OF TUBESHEET



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHzSTEAM GENERATOR: "A" INLET
DATE: Nov 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
18	34	<20	O.D.	AT TOP OF TUBESHEET
18	35	<20	O.D.	" " "
18	36	<20	O.D.	" " "
18	37	<20	O.D.	" " "
18	38	<20	O.D.	1" ABOVE TUBESHEET
18	39	<20	O.D.	" " "
18	40	<20	O.D.	" " "
18	41	<20	O.D.	" " "
18	42	<20	O.D.	2" " "
18	43	<20	O.D.	" " "
18	44	<20	O.D.	" " "
18	45	<20	O.D.	" " "
18	46	<20	O.D.	" " "
18	47	<20	O.D.	AT TOP OF TUBESHEET
18	48	<20	O.D.	" " "
18	49	<20	O.D.	" " "
18	50	<20	O.D.	" " "
18	51	<20	O.D.	" " "
18	52	<20	O.D.	1" ABOVE TUBESHEET
18	53	<20	O.D.	" " "
18	54	<20	O.D.	" " "
18	55	<20	O.D.	AT TOP OF TUBESHEET
18	56	<20	O.D.	" " "
18	57	<20	O.D.	" " "
18	58	<20	O.D.	" " "
19	25	41	O.D.	1" ABOVE TUBESHEET
19	26	41	O.D.	" " "

EDDY CURRENT TEST RESULTS

SITE: Turkey Point Unit 3
TEST FREQUENCY: 400 KHzSTEAM GENERATOR: "A" INLET
DATE: Nov., 1974

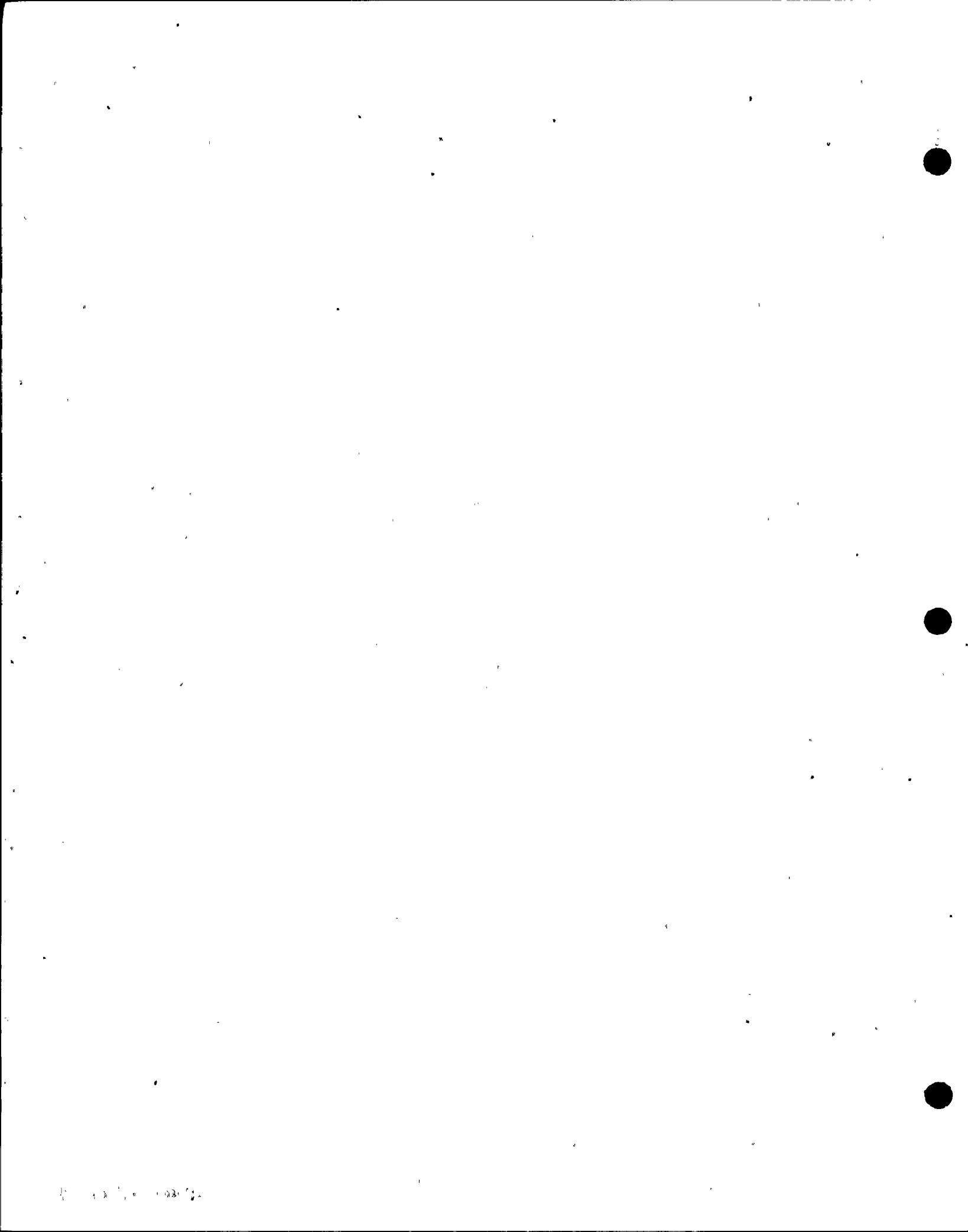
ROW.	COLUMN	% DEFECT	ORIGIN	LOCATION
19	29	<20	O.D.	AT TOP OF TUBESHEET
19	30	66	O.D.	1" ABOVE TUBESHEET
19	31	<20	O.D.	AT TOP OF TUBESHEET
19	32	<20	O.D.	" " " "
19	33	<20	O.D.	" " " "
19	34	<20	O.D.	" " " "
19	36	<20	O.D.	" " " "
19	37	35	O.D.	" " " "
19	38	27	O.D.	" " " "
19	39	55	O.D.	1" ABOVE TUBESHEET
19	40	78	O.D.	" " " "
19	41	35	O.D.	" " " "
19	42	40	O.D.	2" " " "
19	43	<20	O.D.	" " " "
19	44	29	O.D.	1" " " "
19	45	<20	O.D.	AT TOP OF TUBESHEET
19	46	<20	O.D.	" " " "
19	47	<20	O.D.	" " " "
19	48	<20	O.D.	" " " "
19	49	<20	O.D.	" " " "
19	50	<20	O.D.	" " " "
19	51	<20	O.D.	" " " "
19	52	<20	O.D.	ALL OVER TUBE SHEET
19	53	<20	O.D.	" " " "
19	54	<20	O.D.	1" ABOVE TUBESHEET
19	55	<20	O.D.	AT TOP OF TUBESHEET
19	56	<20	O.D.	" " " "

April 19, 1968

EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "A" INLET
DATE: Nov, 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
20	30	<20	O.D.	AT TOP OF TUBESHEET
20	31	<20	O.D.	" " " "
20	32	<20	O.D.	" " " "
20	33	<20	O.D.	" " " "
20	34	<20	O.D.	" " " "
20	36	<20	O.D.	" " " "
20	37	<20	O.D.	" " " "
20	38	55	O.D.	1" ABOVE TUBESHEET
20	39	72	O.D.	" " " "
20	40	<20	O.D.	" " " "
20	41	39	O.D.	" " " "
20	42	40	O.D.	" " " "
20	43	<20	O.D.	AT TOP OF TUBESHEET
20	44	<20	O.D.	" " " "
20	45	<20	O.D.	" " " "
20	46	<20	O.D.	" " " "
20	47	<20	O.D.	" " " "
20	48	36	O.D.	" " " "
20	49	<20	O.D.	" " " "
20	50	<20	O.D.	" " " "
20	51	<20	O.D.	" " " "
20	52	<20	O.D.	" " " "
20	53	<20	O.D.	" " " "
20	54	<20	O.D.	" " " "
20	55	<20	O.D.	" " " "
20	56	<20	O.D.	" " " "
21	29	<20	O.D.	" " " "



EDDY CURRENT TEST RESULTS

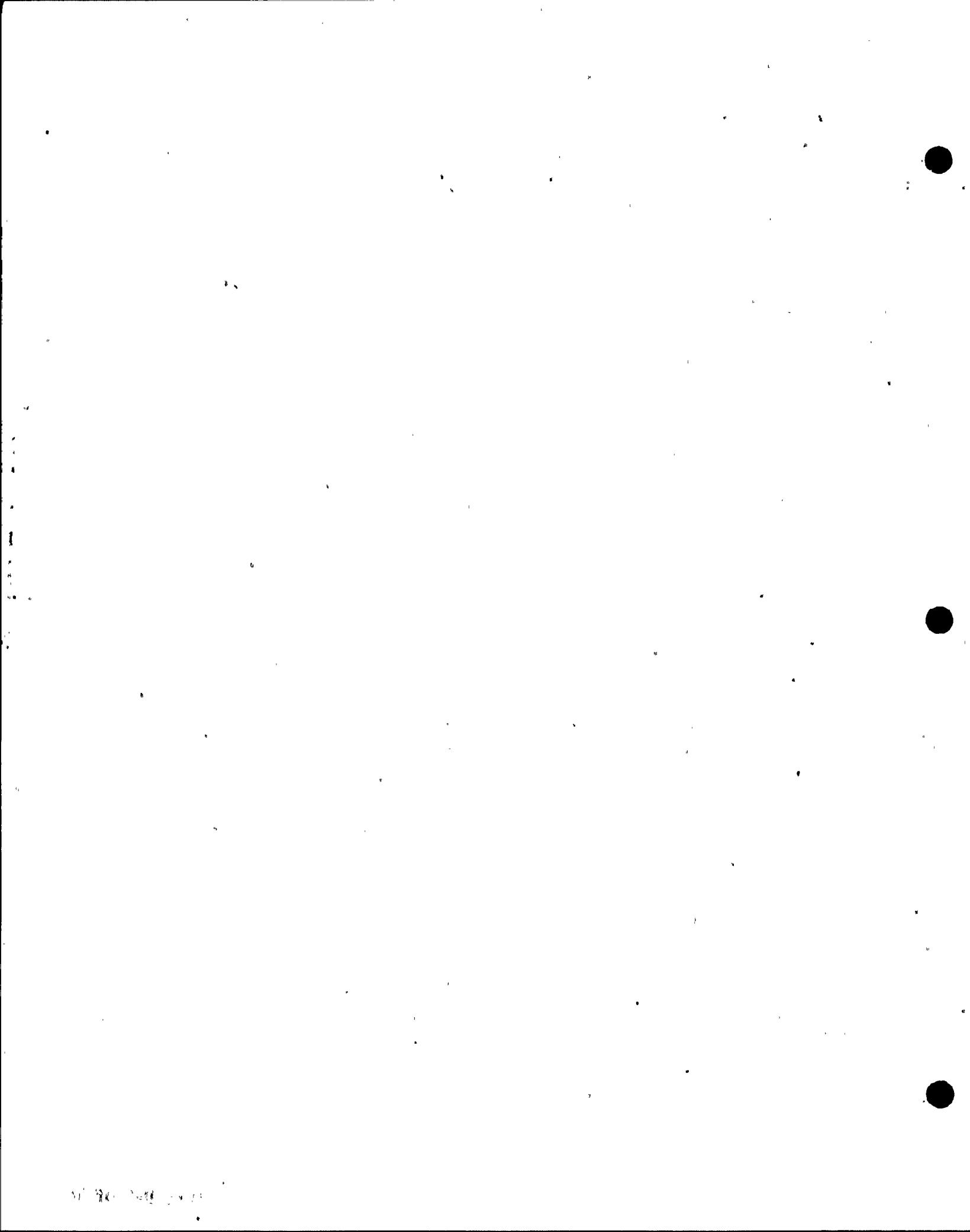
SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400.KHZSTEAM GENERATOR: "A" INLET
DATE: Nov, 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
21	36	<20	O.D.	AT TOP OF TUBESHEET
21	37	<20	O.D.	" " " "
21	38	<20	O.D.	1" ABOVE TUBESHEET
21	39	77	O.D.	" " " "
21	40	42	O.D.	" " " "
21	41	55	O.D.	" " " "
21	42	<20	O.D.	AT TOP OF TUBESHEET
21	43	<20	O.D.	" " " "
21	44	<20	O.D.	" " " "
21	45	<20	O.D.	" " " "
21	46	<20	O.D.	" " " "
21	48	<20	O.D.	" " " "
21	49	<20	O.D.	" " " "
21	50	<20	O.D.	" " " "
21	51	<20	O.D.	" " " "
21	52	<20	O.D.	" " " "
21	53	<20	O.D.	" " " "
21	54	<20	O.D.	" " " "
21	66	<20	O.D.	" " " "
22	50	<20	O.D.	" " " "
22	51	<20	O.D.	" " " "
22	52	<20	O.D.	" " " "
23	61	83	O.D.	1" ABOVE TUBESHEET
24	32	<20	O.D.	AT TOP OF TUBESHEET
24	33	<20	O.D.	" " " "
25	24	<20	O.D.	" " " "
25	25	<20	O.D.	" " " "

EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "A" INLET
DATE: NOV, 1974

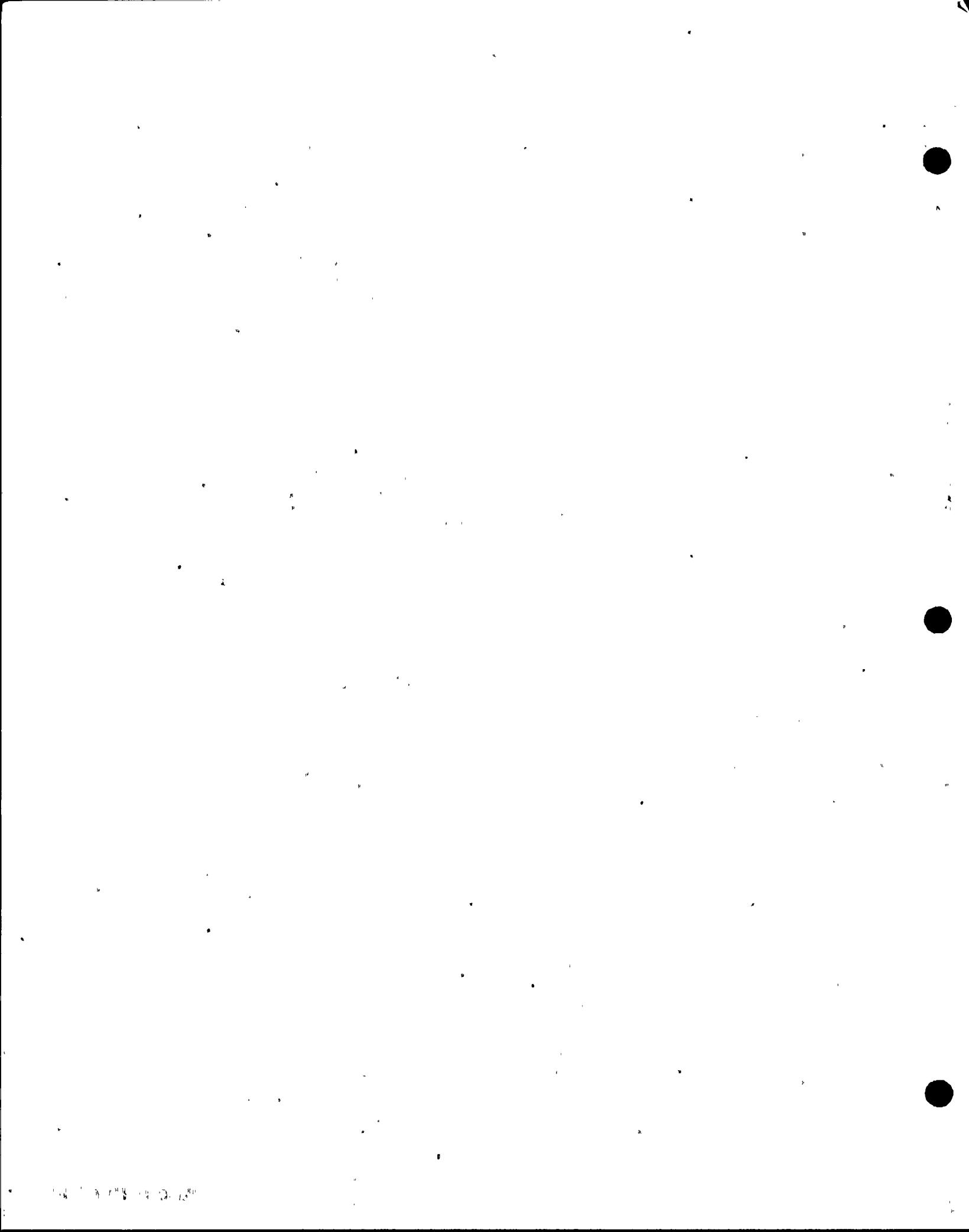
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
25	28	<20	O.D.	AT TOP OF TUBESHEET
25	29	<20	O.D.	" " " "
25	32	<20	O.D.	" " " "
25	33	<20	O.D.	" " " "
25	34	<20	O.D.	" " " "
25	35	<20	O.D.	" " " "
25	36	<20	O.D.	" " " "
25	37	<20	O.D.	" " " "
26	24	<20	O.D.	" " " "
26	25	<20	O.D.	" " " "
26	33	<20	O.D.	" " " "
26	56	<20	O.D.	1" ABOVE TUBESHEET
26	57	<20	O.D.	" " " "
26	58	<20	O.D.	" " " "
26	64	42	O.D.	" " " "
27	56	<20	O.D.	" " " "
27	58	<20	O.D.	" " " "
28	39	<20	O.D.	AT TOP OF TUBESHEET
28	40	<20	O.D.	" " " "
29	41	<20	O.D.	" " " "
29	42	<20	O.D.	" " " "
30	38	<20	O.D.	" " " "
30	39	<20	O.D.	" " " "
30	40	<20	O.D.	" " " "
30	41	<20	O.D.	" " " "
30	42	<20	O.D.	" " " "
30	43	<20	O.D.	" " " "



EDDY CURRENT TEST RESULTS.

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZ

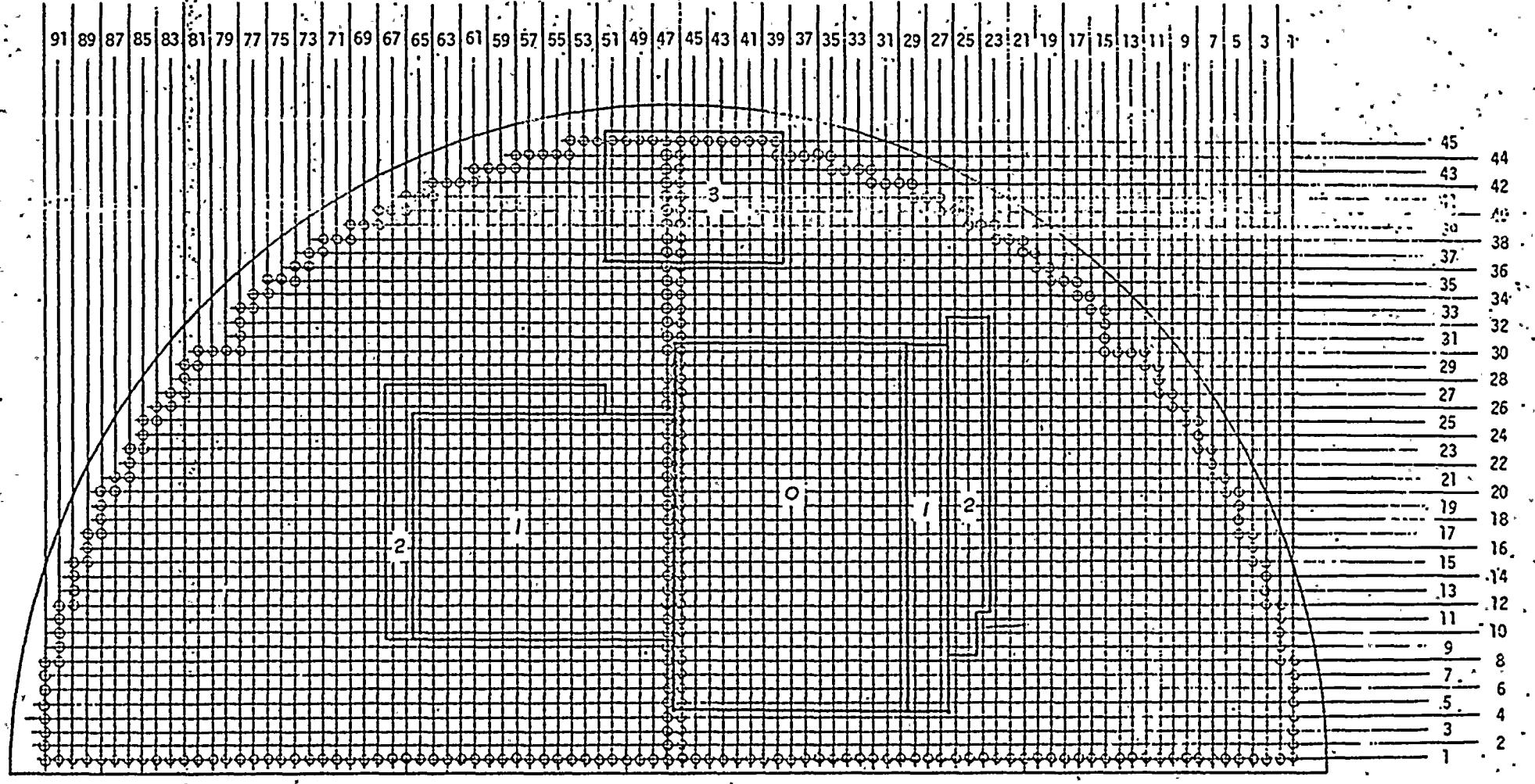
STEAM GENERATOR: "A" INLET
DATE: Nov. 974



- 0 - Original Scope
 1 - Expanded Scope No. 1
 2 - Expanded Scope No. 2
 3 - Expanded Scope No. 3

COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



← MANWAY

Steam Generator A - Inlet 400 KHZ to First Support

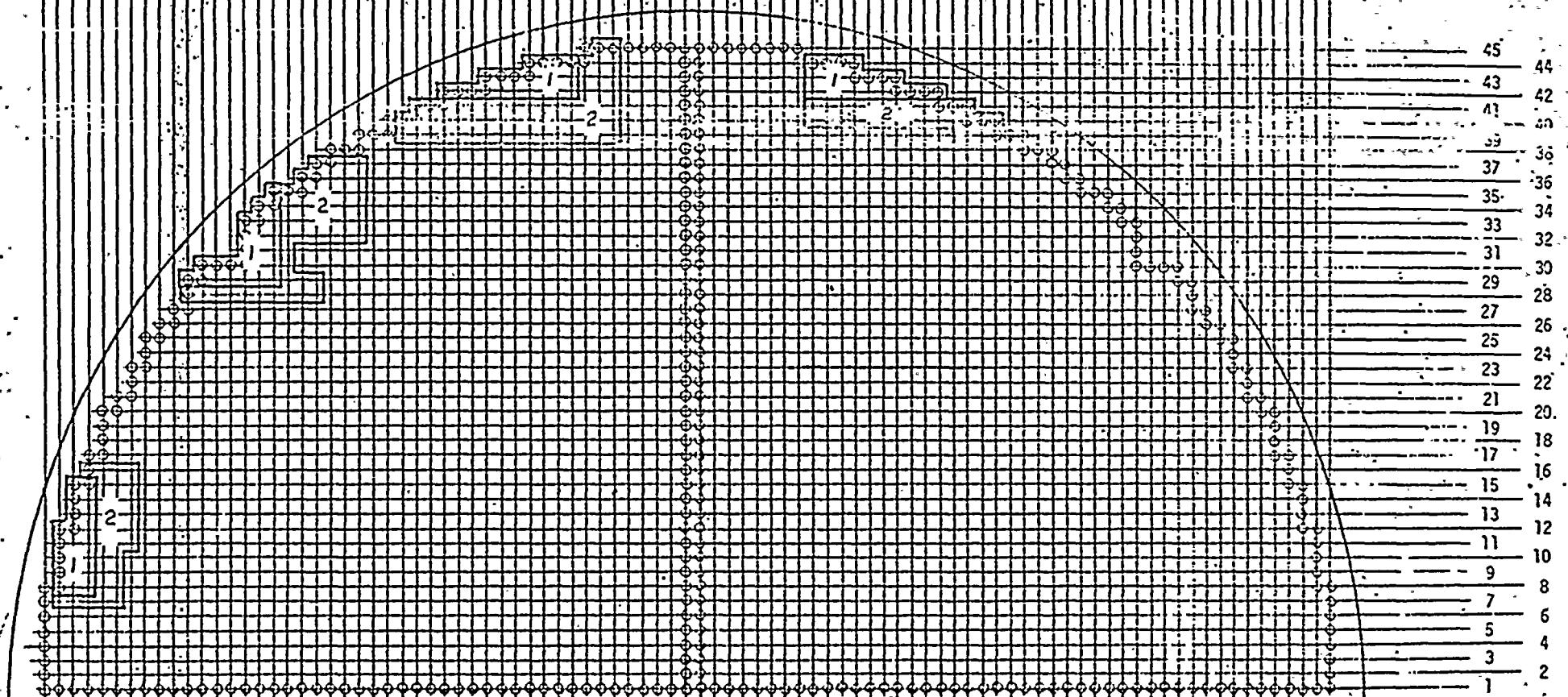
NOZZLE →

1 - Expanded Scope No.
2 - Expanded Scope No. 2

COLUMNS

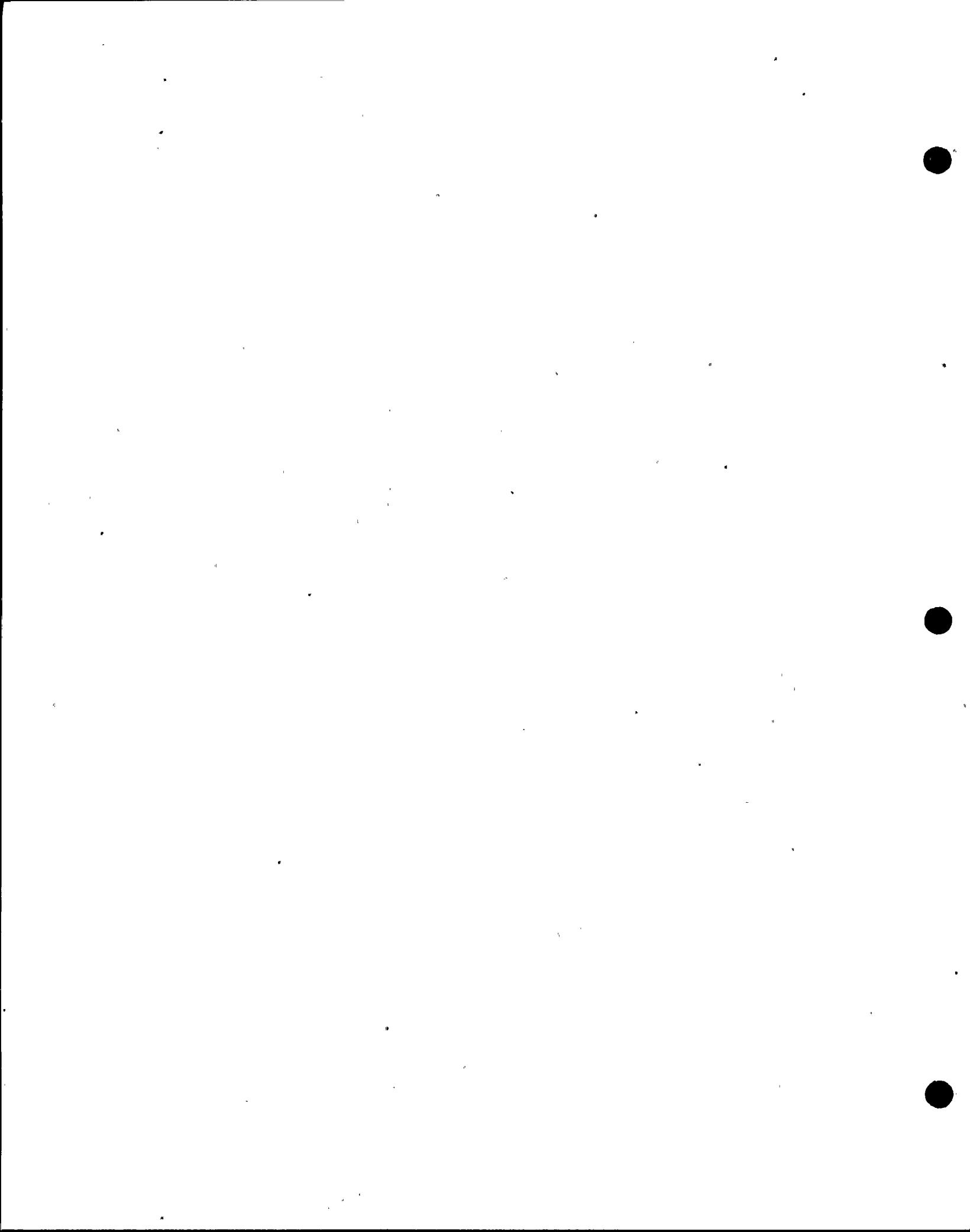
92 90 88 85 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1



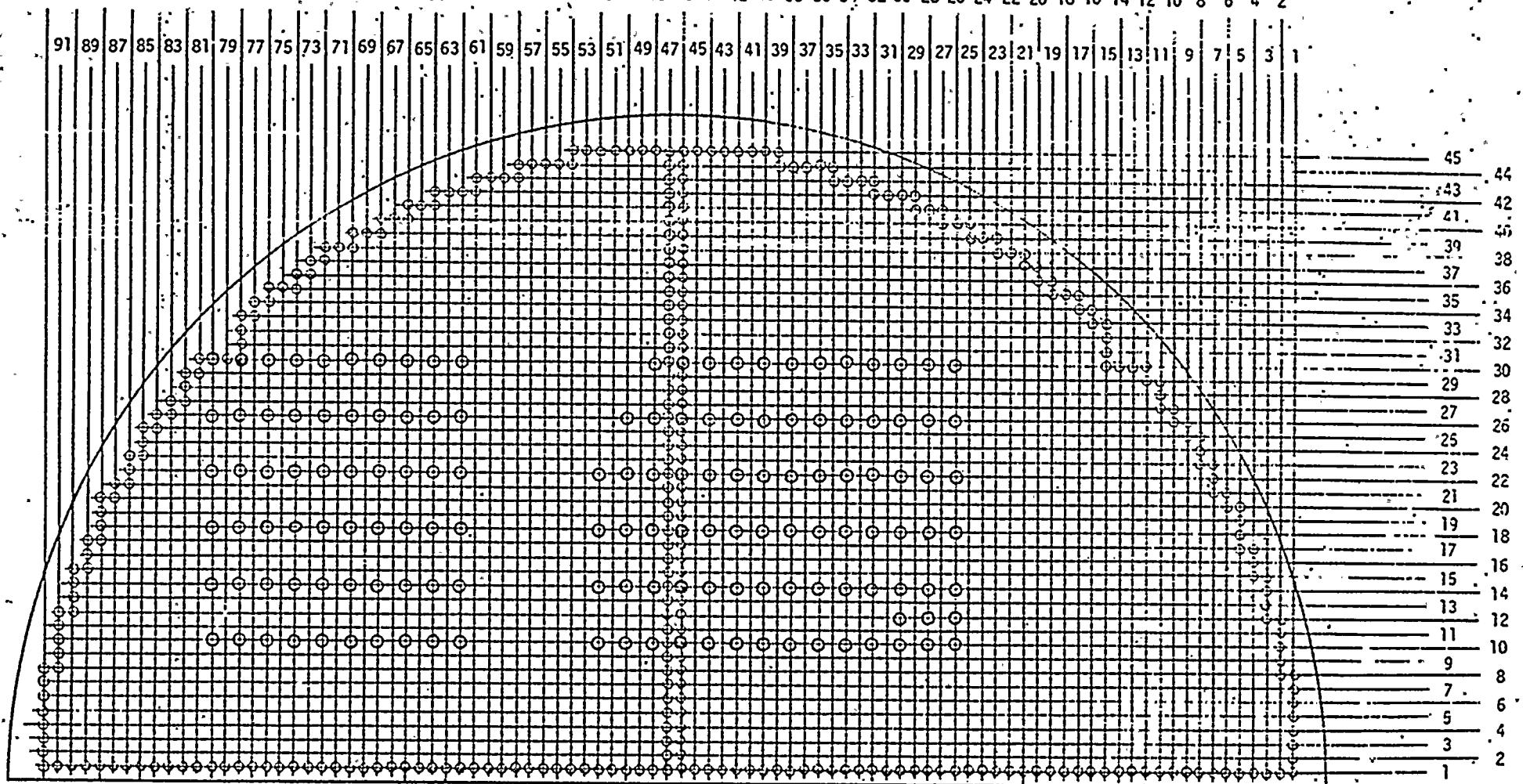
Steam Generator A - Inlet 400 KHZ Around U-Bend

NOZZLE →



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42.40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



← MANWAY

Steam Generator A - Inlet 100 KHZ to First Support

NOZZLE →

ROWS

G-1 13 OF 14

COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

45
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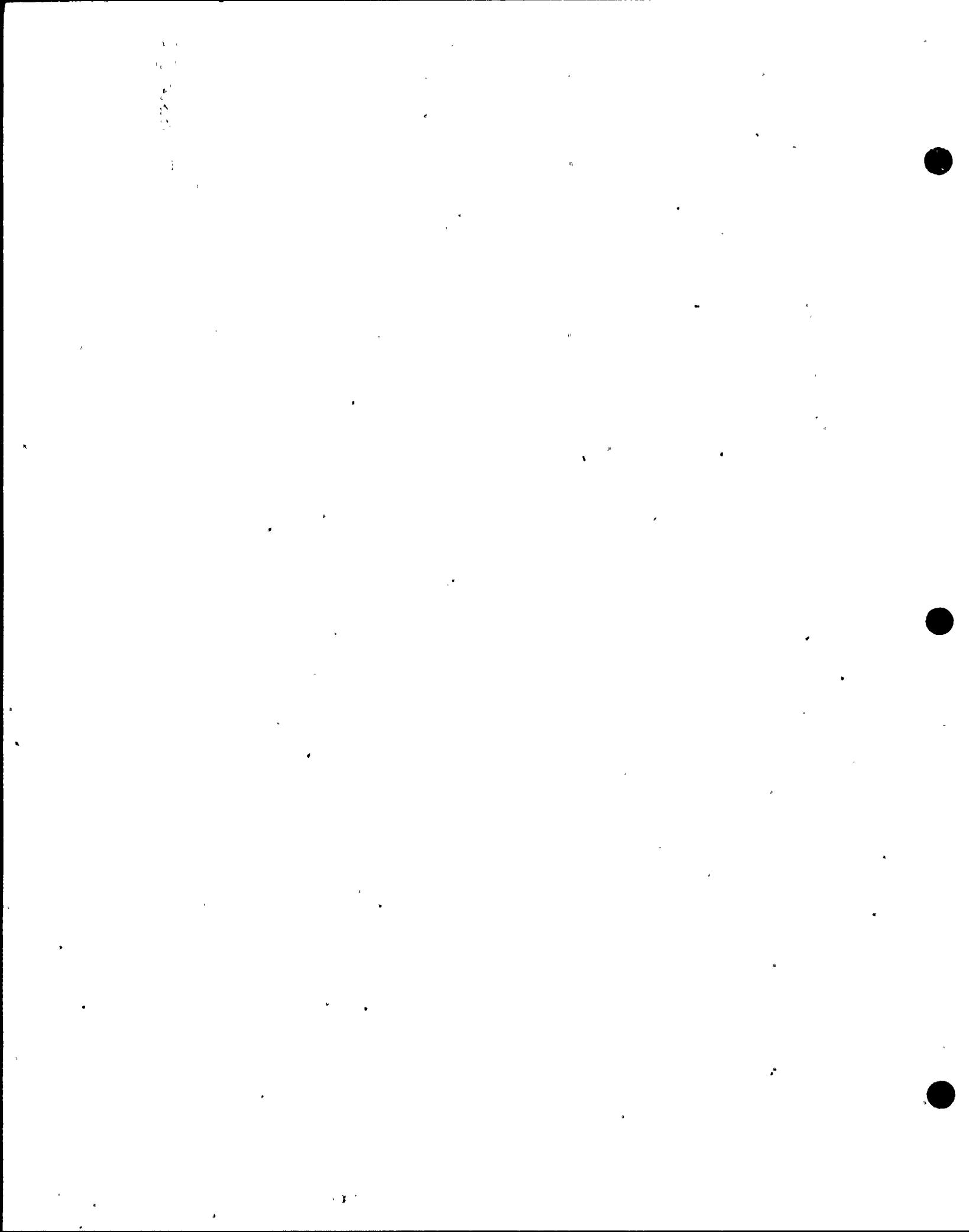
ROWS

← MAINWAY

Steam Generator A - Outlet 400 KHZ Around U-Bend

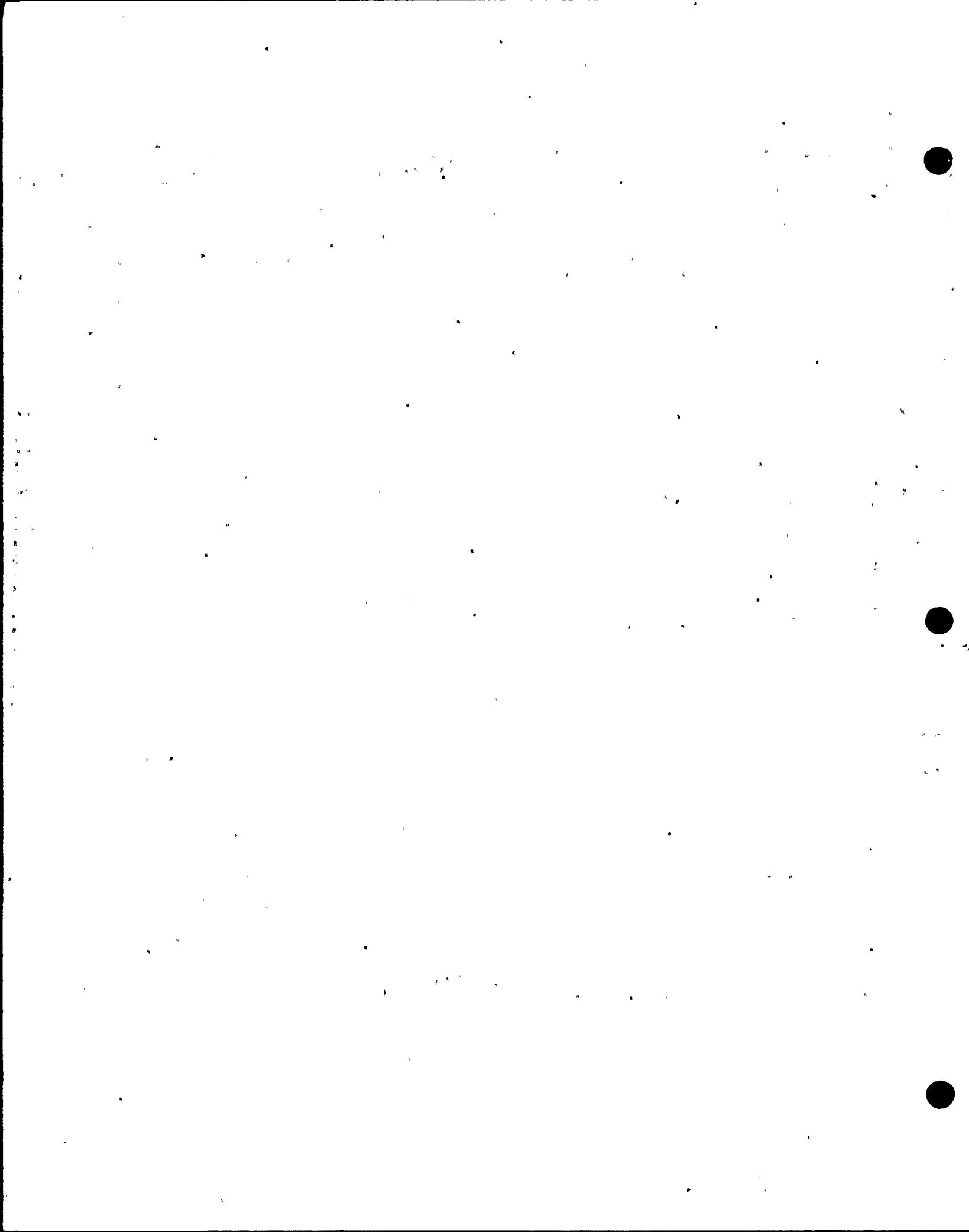
NOZZLE →

G-1 14 OF 14



APPENDIX G-2

Steam Generator B



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHzSTEAM GENERATOR: "B" INLET
DATE: Oct. 4/Nov. 1974

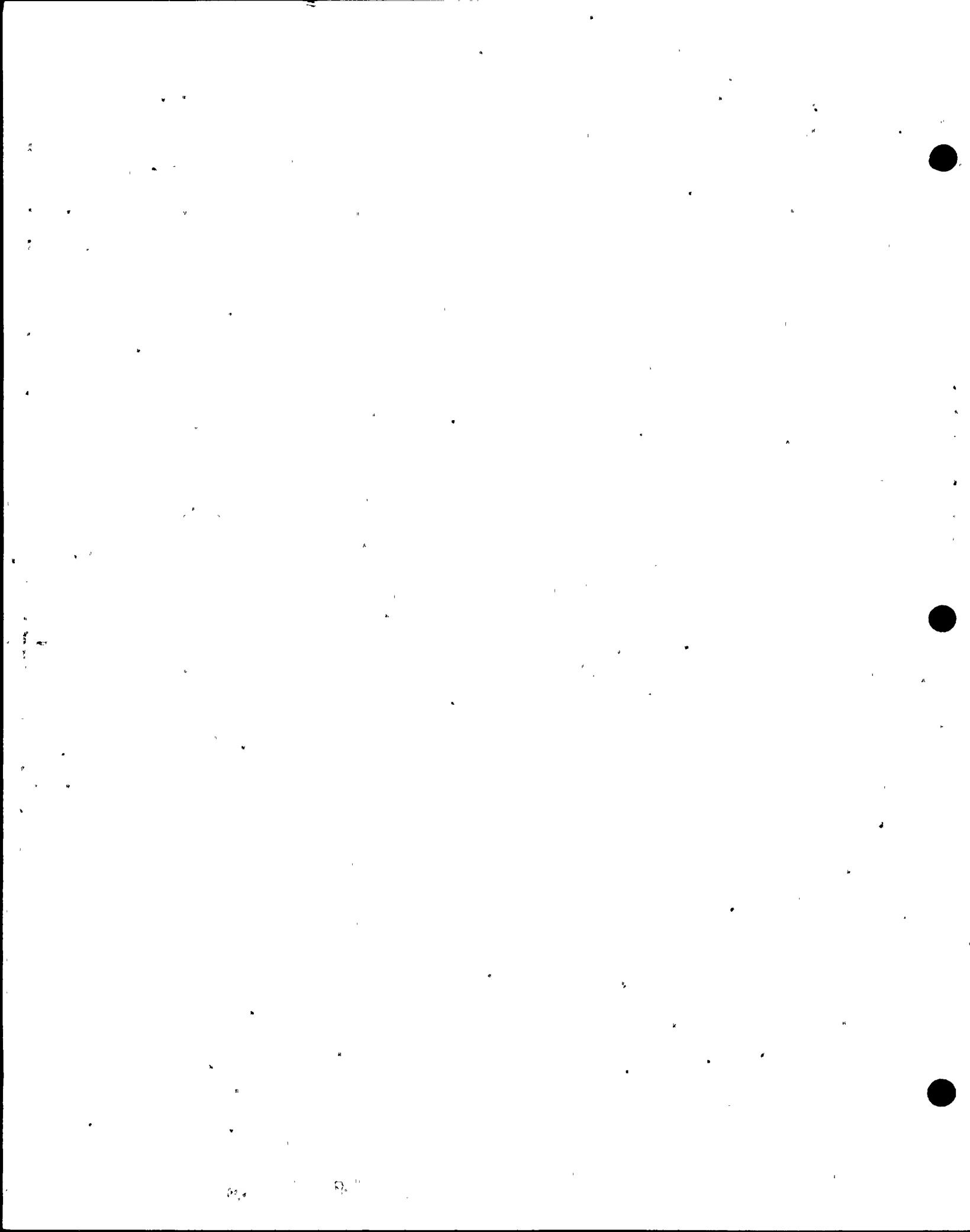
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
9	51	< 20	O.D.	1/2" ABOVE TUBESHEET(T.S.)
13	89	70	O.D.	AT 1 ST SUPPORT
15	37	< 20	O.D.	1/2" ABOVE TUBESHEET
15	38	< 20	O.D.	" " "
15	39	< 20	O.D.	" " "
15	40	< 20	O.D.	" " "
15	43	< 20	O.D.	" " "
15	44	< 20	O.D.	" " "
15	45	< 20	O.D.	" " "
15	53	< 20	O.D.	AT TOP OF "
15	57	< 20	O.D.	1/2" ABOVE "
15	58	< 20	O.D.	" " "
16	39	< 20	O.D.	" " "
16	40	< 20	O.D.	" " "
16	41	< 20	O.D.	" " "
16	42	< 20	O.D.	" " "
16	43	< 20	O.D.	" " "
16	44	< 20	O.D.	" " "
16	45	< 20	O.D.	" " "
16	48	< 20	O.D.	AT TOP OF "
16	50	< 20	O.D.	1/2" ABOVE TUBESHEET
16	51	20	O.D.	" " "
16	53	< 20	O.D.	AT TOP OF "
17	41	< 20	O.D.	1" ABOVE "
17	42	< 20	O.D.	" " "
17	43	< 20	O.D.	" " "
17	44	< 20	O.D.	" " "

100

EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHzSTEAM GENERATOR: "B" INLET
DATE: Oct 5 Nov. 1974

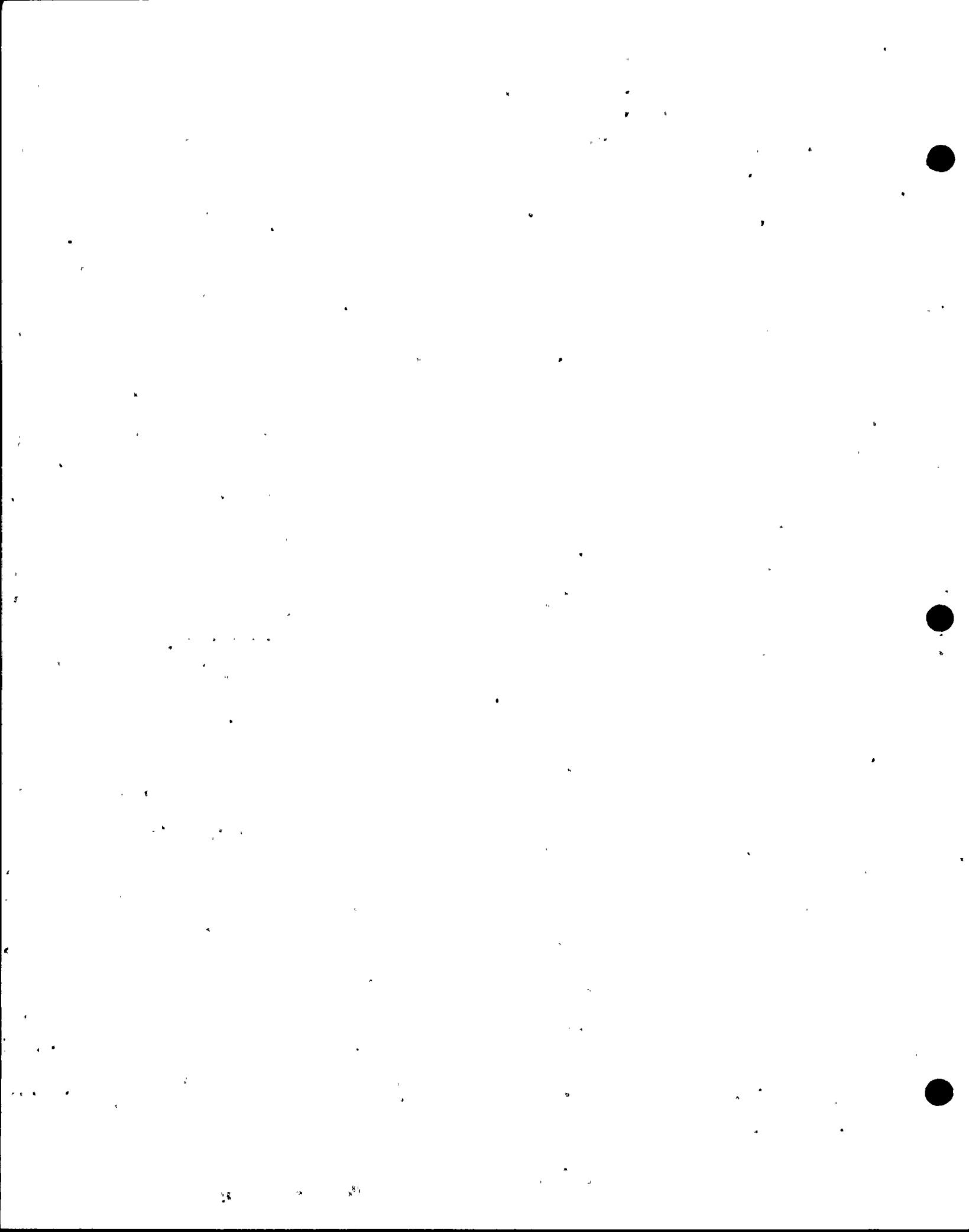
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
17	45	<20	O.D.	1" ABOVE TUBESHEET
17	46	<20	O.D.	1/2" " "
17	47	<20	O.D.	" " "
17	49	<20	O.D.	AT TOP OF TUBESHEET
17	51	<20	O.D.	1/2" ABOVE "
17	53	<20	O.D.	" " "
17	54	<20	O.D.	" " "
18	38	<20	O.D.	AT TOP OF "
18	41	<20	O.D.	1/2" ABOVE "
18	42	<20	O.D.	1" " "
18	43	<20	O.D.	" " "
18	44	<20	O.D.	" " "
18	45	<20	O.D.	" " "
18	46	<20	O.D.	1/2" " "
18	47	<20	O.D.	" " "
18	48	<20	O.D.	" " "
18	49	<20	O.D.	" " "
18	50	<20	O.D.	" " "
18	51	<20	O.D.	" " "
18	52	<20	O.D.	" " "
18	53	<20	O.D.	" " "
18	54	<20	O.D.	" " "
19	41	<20	O.D.	" " "
19	42	<20	O.D.	" " "
19	43	<20	O.D.	" " "
19	44	<20	O.D.	" " "
19	46	<20	O.D.	" " "



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "B" INLET
DATE: Oct 5 Nov, 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
19	47	<20	O.D.	1/2" ABOVE TUBESHEET
19	48	<20	O.D.	" " "
19	49	<20	O.D.	" " "
19	50	<20	O.D.	" " "
19	51	<20	O.D.	" " "
19	52	<20	O.D.	" " "
19	54	<20	O.D.	AT TOP OF
19	55	<20	O.D.	" " "
19	56	<20	O.D.	" " "
20	43	<20	O.D.	1/2" ABOVE
20	44	<20	O.D.	" " "
20	46	<20	O.D.	" " "
20	49	<20	O.D.	" " "
20	50	<20	O.D.	" " "
20	51	<20	O.D.	" " "
20	52	21	O.D.	" " "
20	54	<20	O.D.	" " "
21	43	<20	O.D.	" " "
24	58	<20	O.D.	AT TOP OF
24	59	<20	O.D.	1/2" ABOVE
25	30	<20	O.D.	1/2" "
25	54	<20	O.D.	AT TOP OF
25	55	<20	O.D.	1/2" ABOVE
25	56	<20	O.D.	" " "
25	58	<20	O.D.	" " "
26	35	<20	O.D.	" " "
26	38	<20	O.D.	" " "



EDDY CURRENT TEST RESULTS

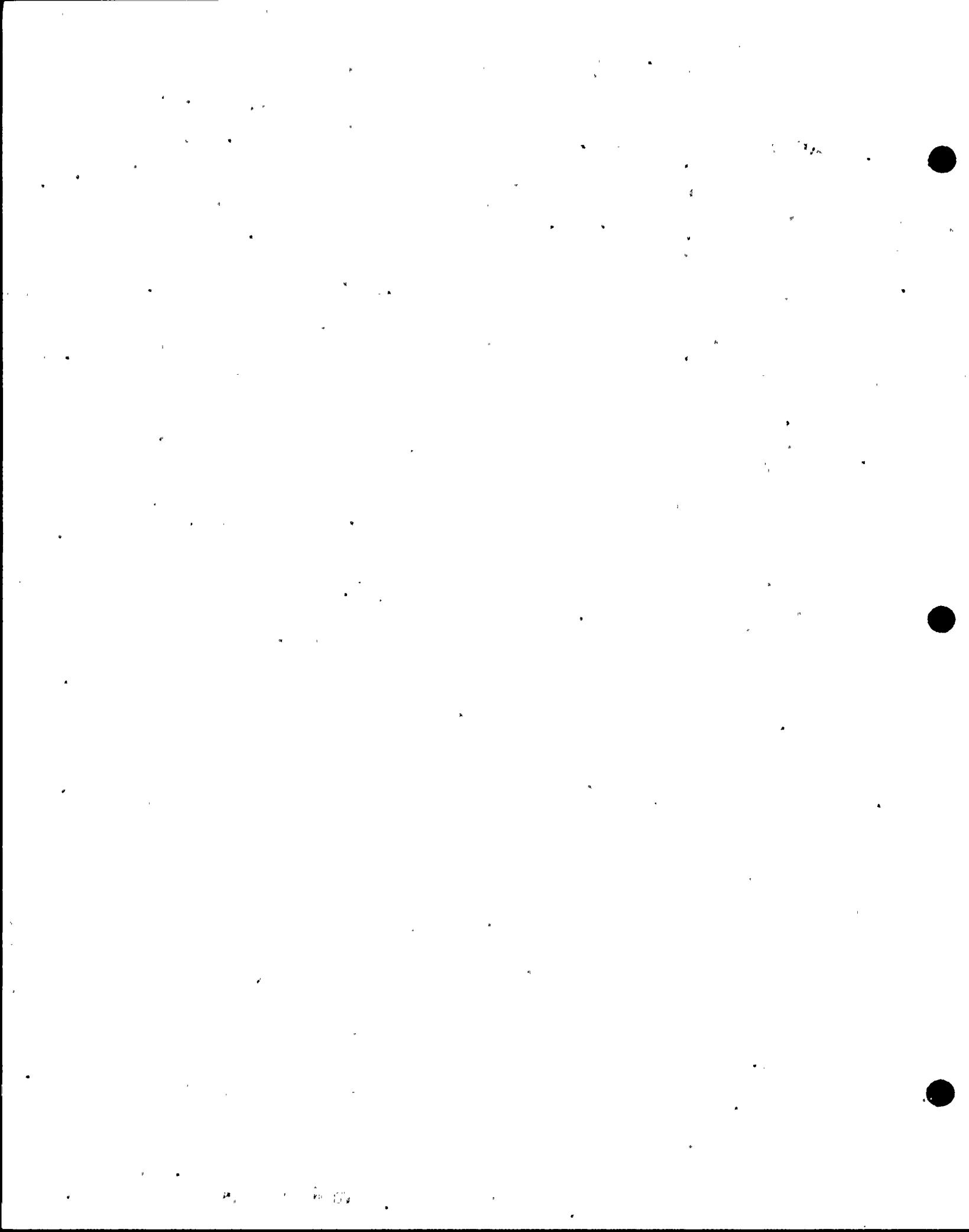
SITE: TURKEY POINT UNIT 3

TEST FREQUENCY: 400 KHZ

STEAM GENERATOR: "B" INLET

DATE: Oct 3 & Nov, 1974

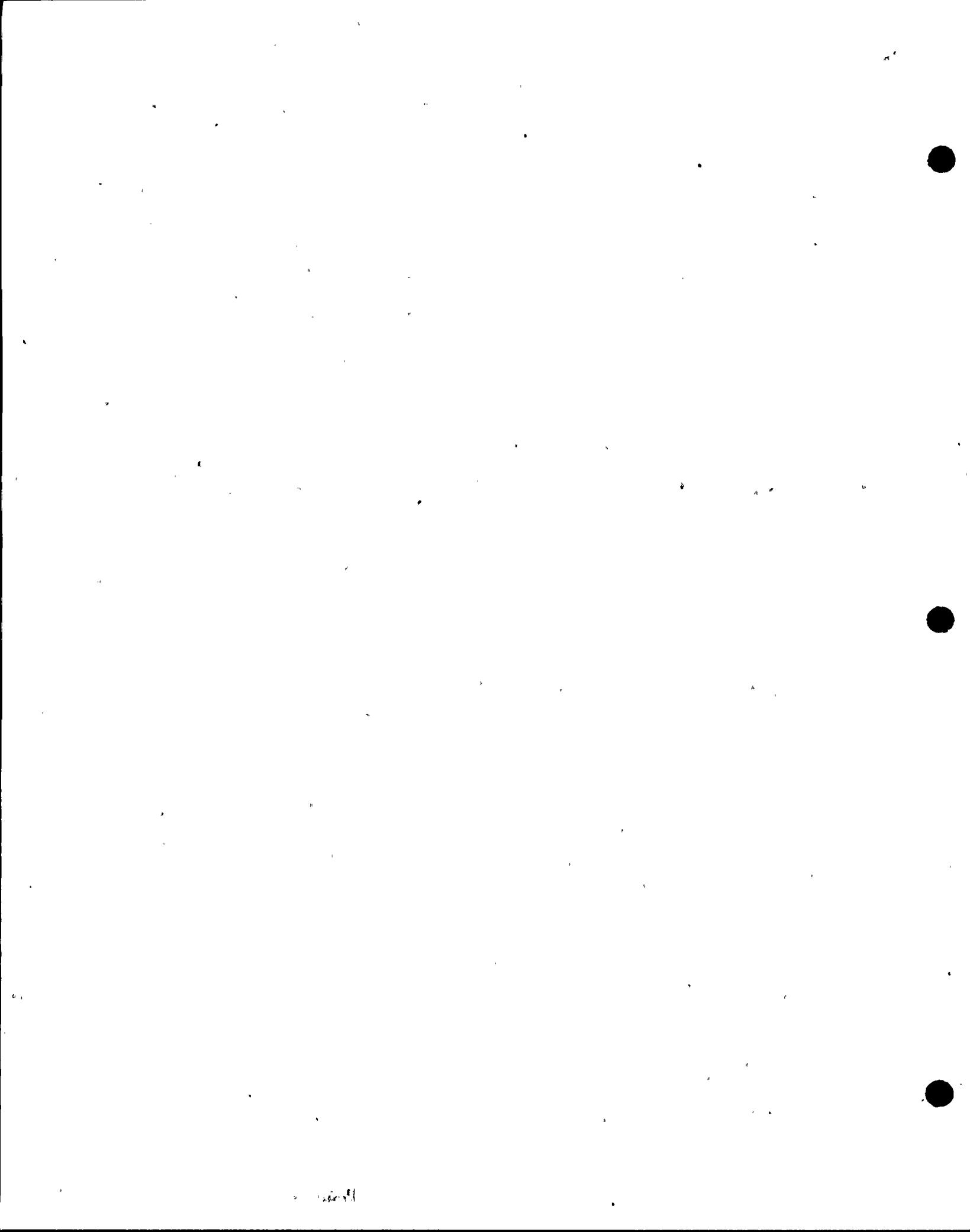
ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
26	39	<20	O.D.	1/2" ABOVE TUBESHEET
26	56	<20	O.D.	" " "
26	57	<20	O.D.	" " "
27	36	<20	O.D.	" " "
27	39	<20	O.D.	" " "
27	56	<20	O.D.	" " "
27	60	<20	O.D.	" " "
28	35	<20	O.D.	" " "
28	36	<20	O.D.	" " "
28	37	<20	O.D.	" " "
28	55	<20	O.D.	" " "
28	56	<20	O.D.	" " "
28	57	<20	O.D.	" " "
29	55	<20	O.D.	AT TOP OF "
29	56	<20	O.D.	1/2" ABOVE "
29	81	47	O.D.	AT 2 ND SUPPORT
		54	O.D.	AT 1 ST SUPPORT
30	35	<20	O.D.	1/2" ABOVE TUBESHEET
30	13	<20	O.D.	AT #4 ANTI-VIBRATION BAR
30	55	<20	O.D.	AT TOP OF TUBESHEET
30	56	<20	O.D.	" " " "
30	79	60	O.D.	AT 1 ST SUPPORT
31	78	66	O.D.	" " " "
32	17	<20	O.D.	AT 5 TH SUPPORT - COLD LEG
42	33	20	O.D.	2" ABOVE 6 TH SUPPORT
42	32	30	O.D.	" " " "
		55	O.D.	AT 1 ST SUPPORT



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZ

STEAM GENERATOR: "B" INLET
DATE: Oct. 5 Nov., 1974



EDDY CURRENT TEST RESULTS

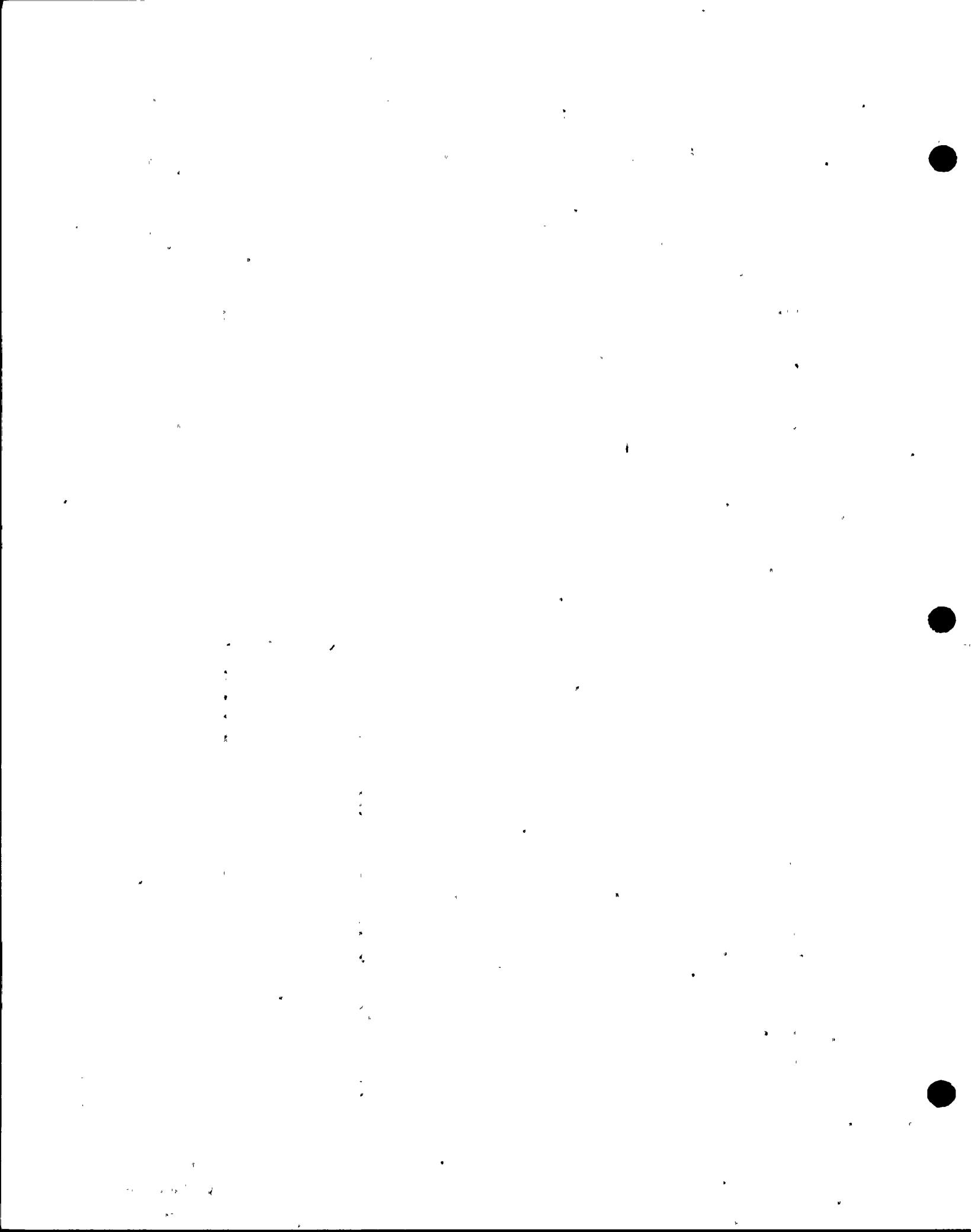
SITE: TURKEY POINT #3

STEAM GENERATOR: LOOP B; HOT LEG

TEST FREQUENCY: 25 KHZ

DATE:

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
7	12	0	7	58	0
	14	0		60	0
	16	1/2"		62	0
	18	1"		64	0
	20	1"		66	0
	22	1"		68	0
	24	1/2"		70	0
	26	0		72	1/2"
	28	0		74	1/2"
	30	0		76	1/2"
	32	0		78	0
	34	0		80	0
	36	0		82	0
	38	0			
	40	1"			
	42	2"			
	44	1"			
	46	1/2"			
	48	0			
	50	0			
	52	0			
	54	0			
	56	0			



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT #3.

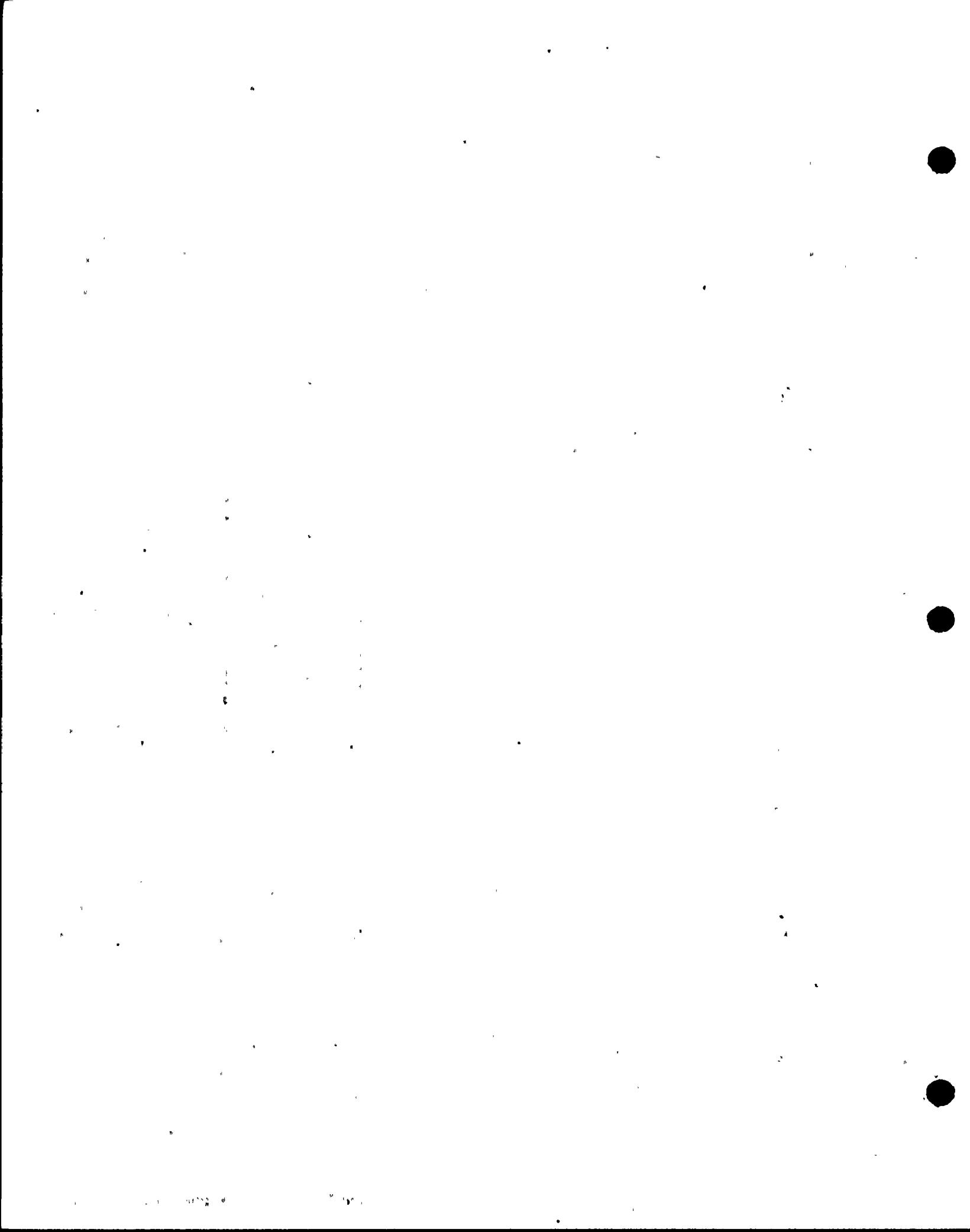
STEAM GENERATOR: LOOP B; HOT LEG

TEST FREQUENCY: 25 KHZ

DATE:

OCTOBER, 1974

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
14	12	0	14	72	1/2"
	14	0		74	1/2"
	16	0		76	0
	18	0		78	0
	20	1/2"		80	0
	22	1/2"		82	0
	24	1"			
	26	1"	21	12	0
	28	1"		14	0
	30	1"		16	0
	32	1/2"		18	0
	34	2"		20	1/2"
	36	1/2"		22	1/2"
	38	1/2"		24	1"
	40	2 1/2"		26	1 1/2"
	42	3"		28	1 1/2"
	44	3"		30	2 1/2"
	46	3"		32	2 1/2"
	48	2 1/2"		34	2 1/2"
	50	1"		36	2 1/2"
	52	1/2"		38	2 1/2"
	54	1/2"		40	2 1/2"
	56	1/2"			
	58	1 1/2"			
	60	1 1/2"			
	62	1"			
	64	1/2"			
	66	1/2"			
	68	1/2"			
	70	1/2"			



EDDY CURRENT TEST RESULTS

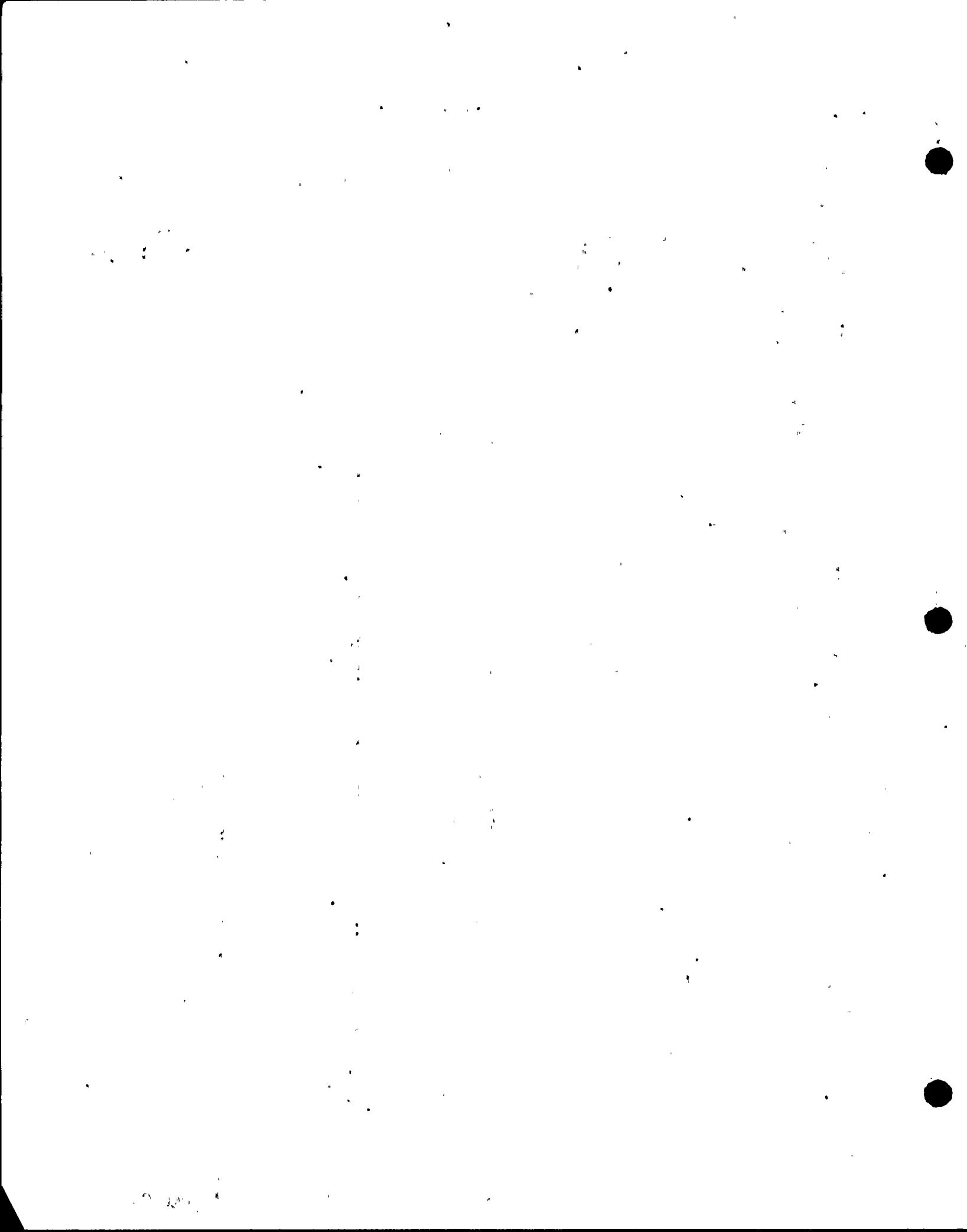
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
21	42	2"	28	12	0
	44	3½"		14	0
	46	2½"		16	0
	48	3½"		18	0
	50	2"		20	0
	52	1"		22	0
	54	1½"		24	½"
	56	1"		26	0
	58	½"		28	1½"
	60	½"		30	2"
	62	½"		32	2"
	64	½"		34	1½"
	66	½"		36	2½"
	68	½"		38	3"
	70	0		40	1½"
	72	0		42	1"
	74	0		44	½"
	76	0		46	1"
	78	0		48	1½"
	80	0		50	0
	82	0		52	2½"
				54	3½"



EDDY CURRENT TEST RESULTS

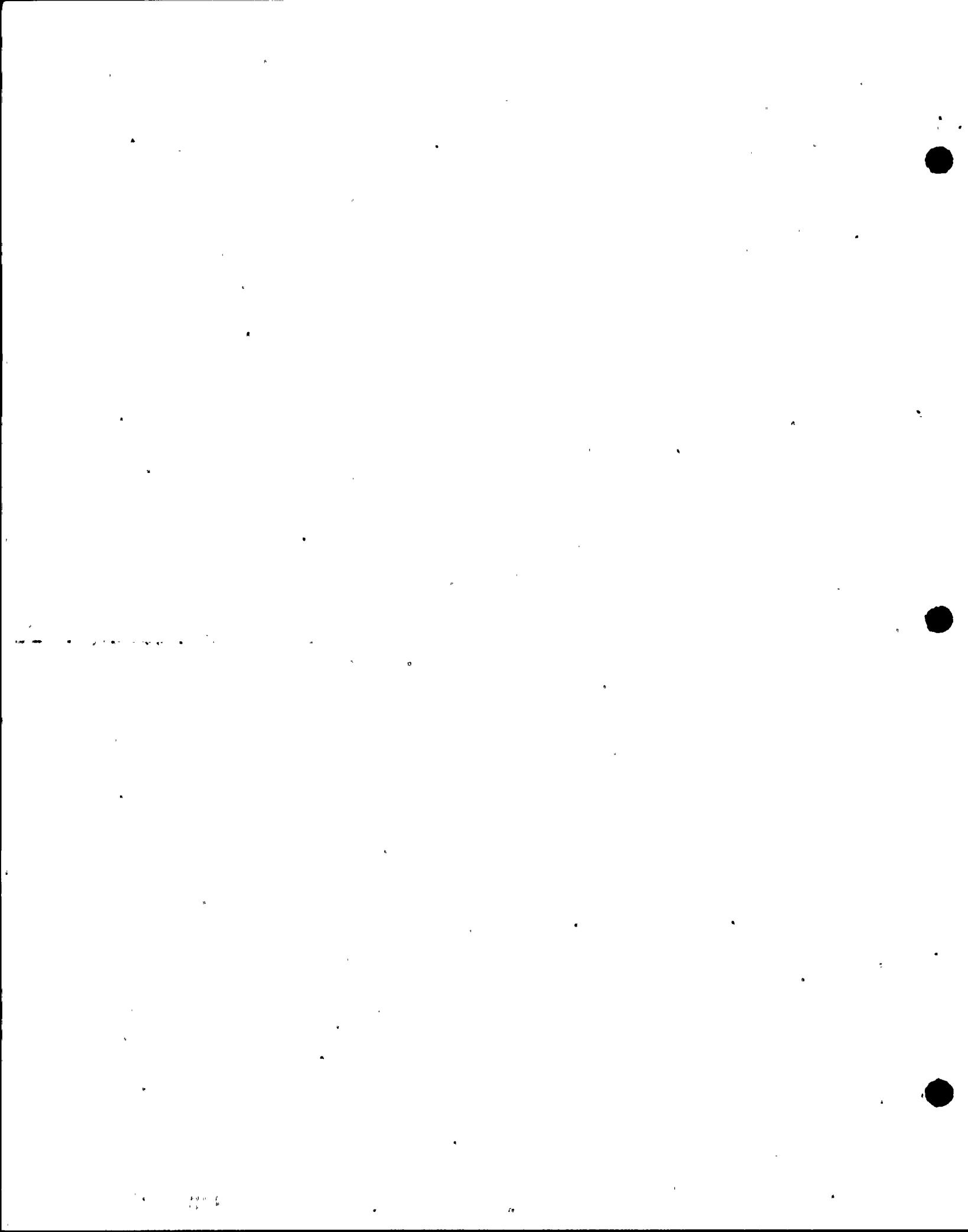
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
28	56	3"			
	58	2"			
	60	0			
	62	0			
	64	0			
	66	0			
	68	0			
	70	0			
	72	0			
	74	0			
	76	0			
	78	0			
	80	0			
	82	0			



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT #3

STEAM GENERATOR: LOOP B; COLD LEG

TEST FREQUENCY: 400KHZ

DATE:

OCTOBER 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
5	31	<20	O-D	At top of tubesheet
5	32	<20	"	1/2" above tubesheet
5	33	<20	"	"
5	34	<20	"	"
5	35	<20	"	"
5	36	<20	"	"
5	37	<20	"	"
5	38	<20	"	"
5	39	<20	"	"
5	40	<20	"	"
6	30	<20	"	At top of tubesheet
6	31	26	"	1/2" above tubesheet
6	32	23	"	"
6	33	<20	"	"
6	34	<20	"	"
6	35	<20	"	"
6	36	<20	"	"
6	37	<20	"	"
6	38	<20	"	"

EDDY CURRENT TEST RESULTS

SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
6	39	<20	OD	1/2" above tubesheet
6	40	<20	OD	" "
6	41	<20	OD	" "
6	42	<20	OD	" "
6	43	<20	OD	at top of tubesheet
6	44	<20	OD	" "
7	30	20	"	1/2" above tubesheet
7	31	30	"	" "
7	32	<20	"	" "
7	33	<20	"	" "
7	34	<20	"	" "
7	35	20	"	" "
7	36	<20	"	" "
7	37	<20	"	" "
7	38	<20	"	" "
7	39	<20	"	" "
7	40	<20	"	" "
7	41	<20	"	" "
7	42	<20	"	" "
7	43	<20	"	" "

EDDY CURRENT TEST RESULTS

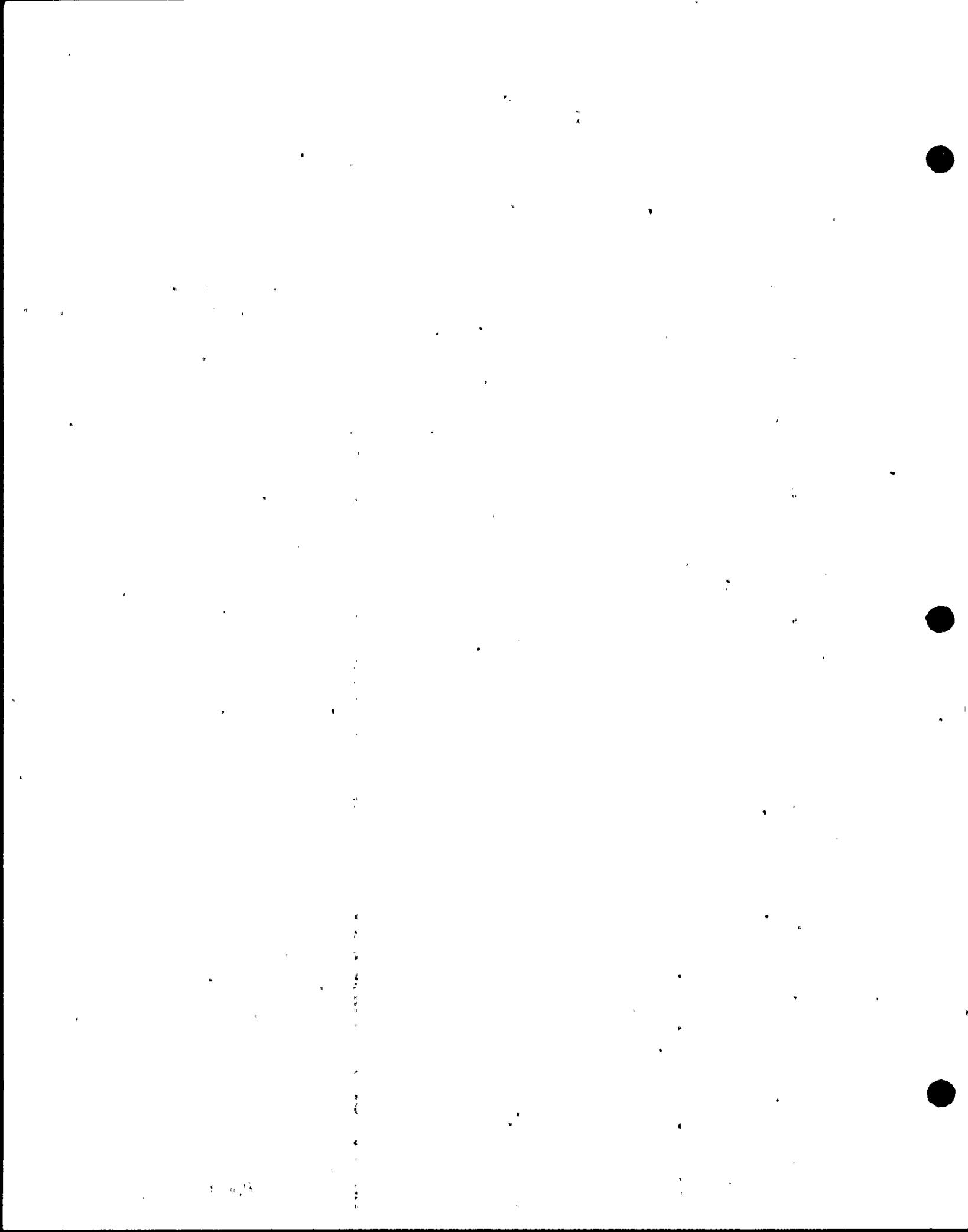
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
7	44	<20	OD	" above tubesheet
7	46	<20	"	"
8	30	21	"	"
8	31	<20	"	"
8	32	<20	"	"
8	33	<20	"	"
8	34	<20	"	"
8	35	<20	"	"
8	36	<20	"	"
8	37	<20	"	"
8	38	<20	"	"
8	40	<20	"	"
8	41	<20	"	"
8	42	<20	"	"
8	43	<20	"	"
8	44	<20	"	"
8	45	<20	"	"
8	46	<20	"	"



EDDY CURRENT TEST RESULTS

SITE:

STEAM GENERATOR

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
9	30	<20	O.D.	1/2" above tubesheet
9	31	"	"	"
9	32	"	"	"
9	33	"	"	"
9	34	"	"	"
9	35	"	"	"
9	36	"	"	"
9	37	"	"	"
9	38	"	"	"
9	39	"	"	"
9	41	"	"	"
9	42	"	"	"
9	43	"	"	"
9	44	"	"	"
9	45	"	"	"
9	46	"	"	"
10	28	"	"	"
10	29	"	"	"
10	30	"	"	"
10	31	"	"	"

EDDY CURRENT TEST RESULTS

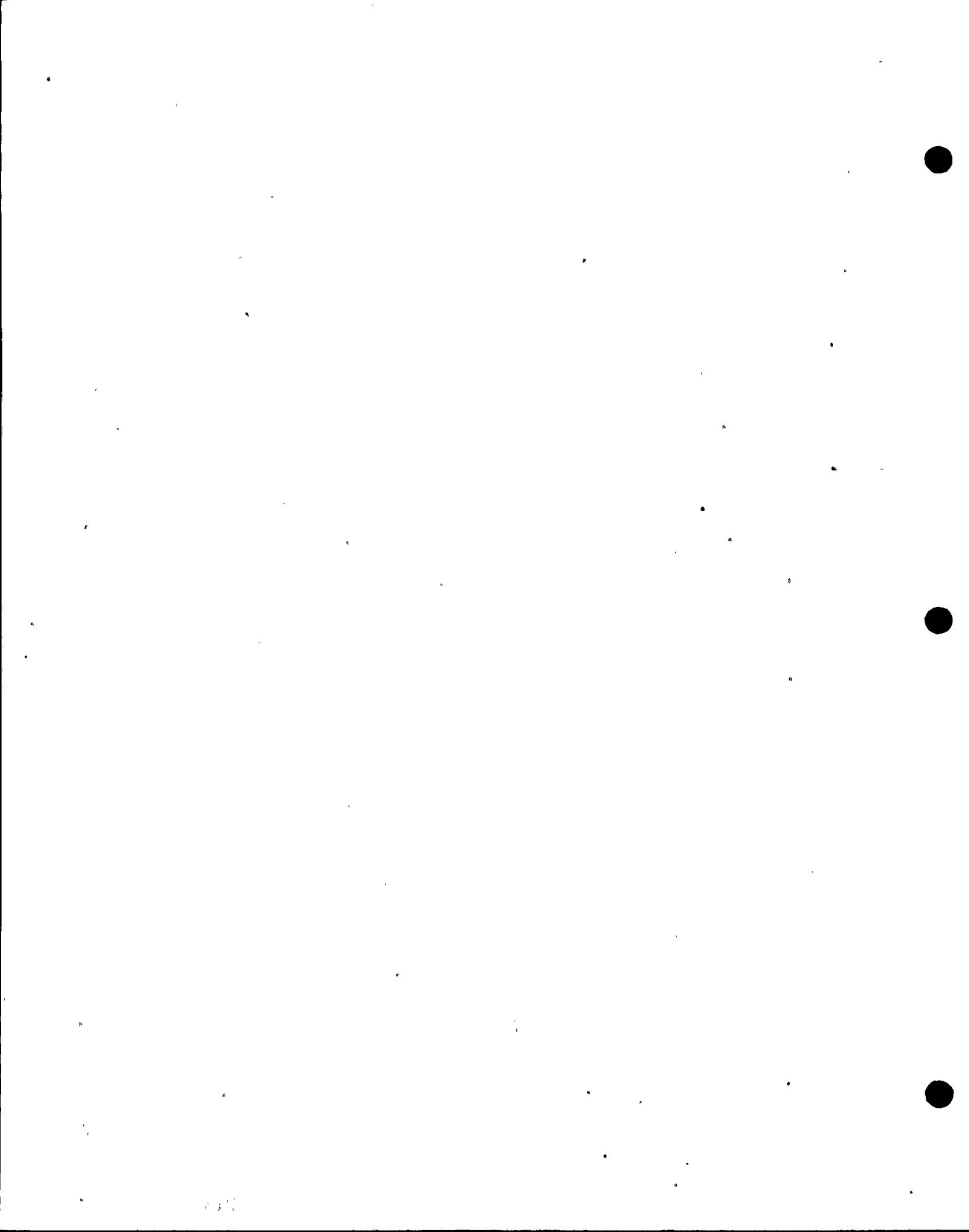
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
10	32	<20	0, 2	above tubesheet
10	33	"	"	"
10	37	"	"	"
10	38	"	"	"
10	40	"	"	"
10	42	"	"	"
10	43	"	"	"
10	44	"	"	"
10	45	"	"	"
10	46	"	"	"
11	28	"	"	"
11	29	"	"	"
11	30	"	"	"
11	31	"	"	"
11	32	"	"	"
11	33	"	"	"
11	34	"	"	"
11	42	"	"	"
11	43	"	"	"



EDDY CURRENT TEST RESULTS

SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
11	44	<20	OD	'2" above tubesheet
11	45	"	"	"
11	46	28	"	"
12	28	<20	"	"
12	29	"	"	"
12	30	"	"	"
12	31	"	"	"
12	32	"	"	"
12	33	"	"	"
12	34	"	"	"
12	35	"	"	"
12	42	"	"	"
12	43	"	"	"
12	44	"	"	"
12	45	"	"	"
12	46	30	"	"
13	28	<20	"	"
13	29	"	"	"
13	30	"	"	"

EDDY CURRENT TEST RESULTS

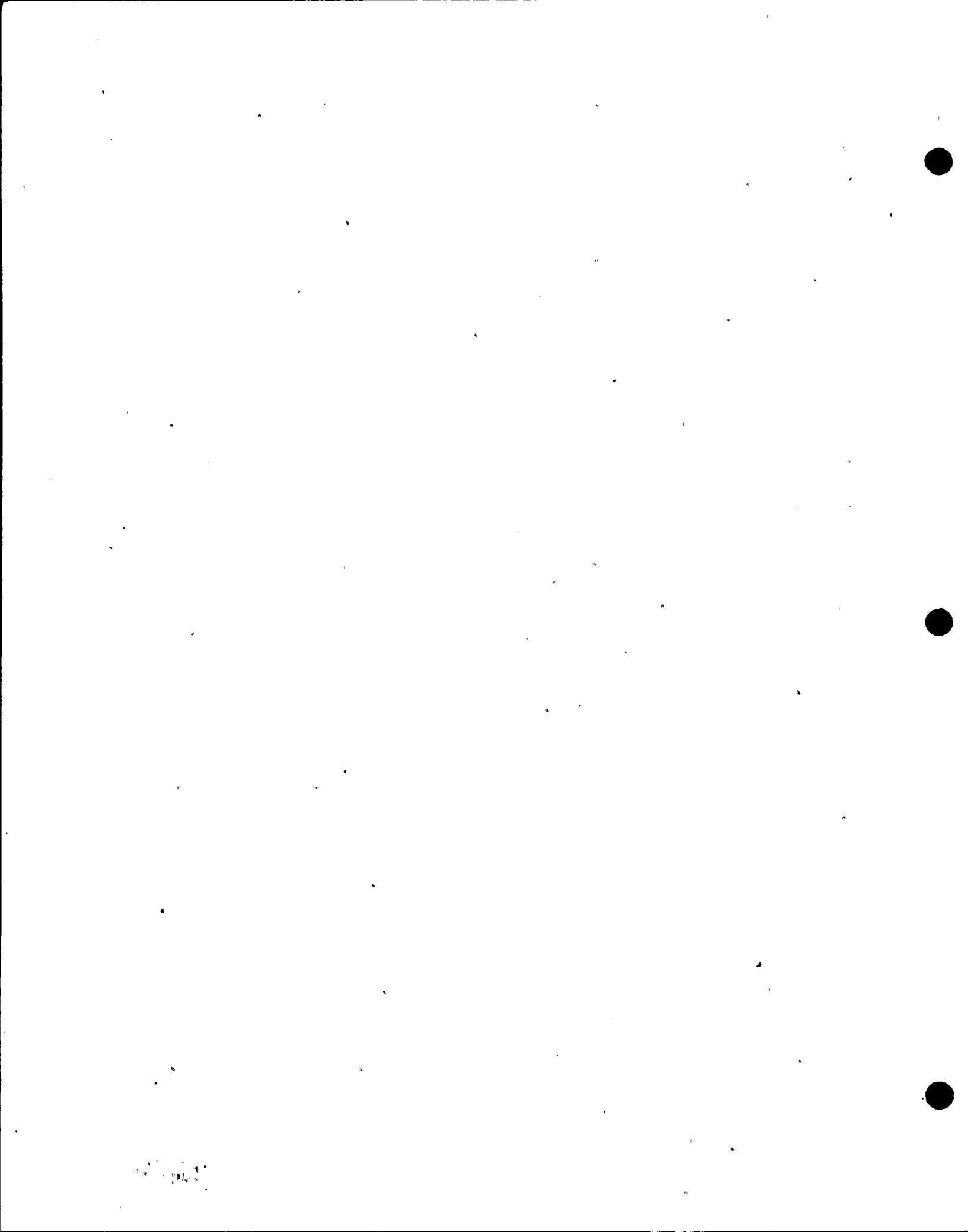
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
13	31	<20	OD	1/2" above tubesheet
13	32	"	"	"
13	33	"	"	"
13	34	"	"	"
13	35	"	"	"
13	37	"	"	"
13	38	"	"	"
13	39	"	"	"
13	42	"	"	"
13	43	--"	"	"
13	44	"	"	"
13	45	"	"	"
13	46	"	"	"
14	28	"	"	"
14	29	"	"	"
14	30	"	"	"
14	31	"	"	"
14	32	"	"	"
14	33	"	"	"



EDDY CURRENT TEST RESULTS

SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
14	34	<20	O.D.	"2" above tubesheet
14	35	0	4	
14	37	0	4	
14	38	0	4	
14	41	0	4	
14	42	27	4	
14	43	<20	4	
14	44	32	0	
14	45	25	0	
14	46	27	0	
15	28	<20	0	
15	29	0	0	
15	30	0	0	
15	31	0	0	
15	32	0	0	
15	33	0	0	
15	34	0	0	
15	35	0	0	
15	36	0	0	
15	37	0	0	

EDDY CURRENT TEST RESULTS

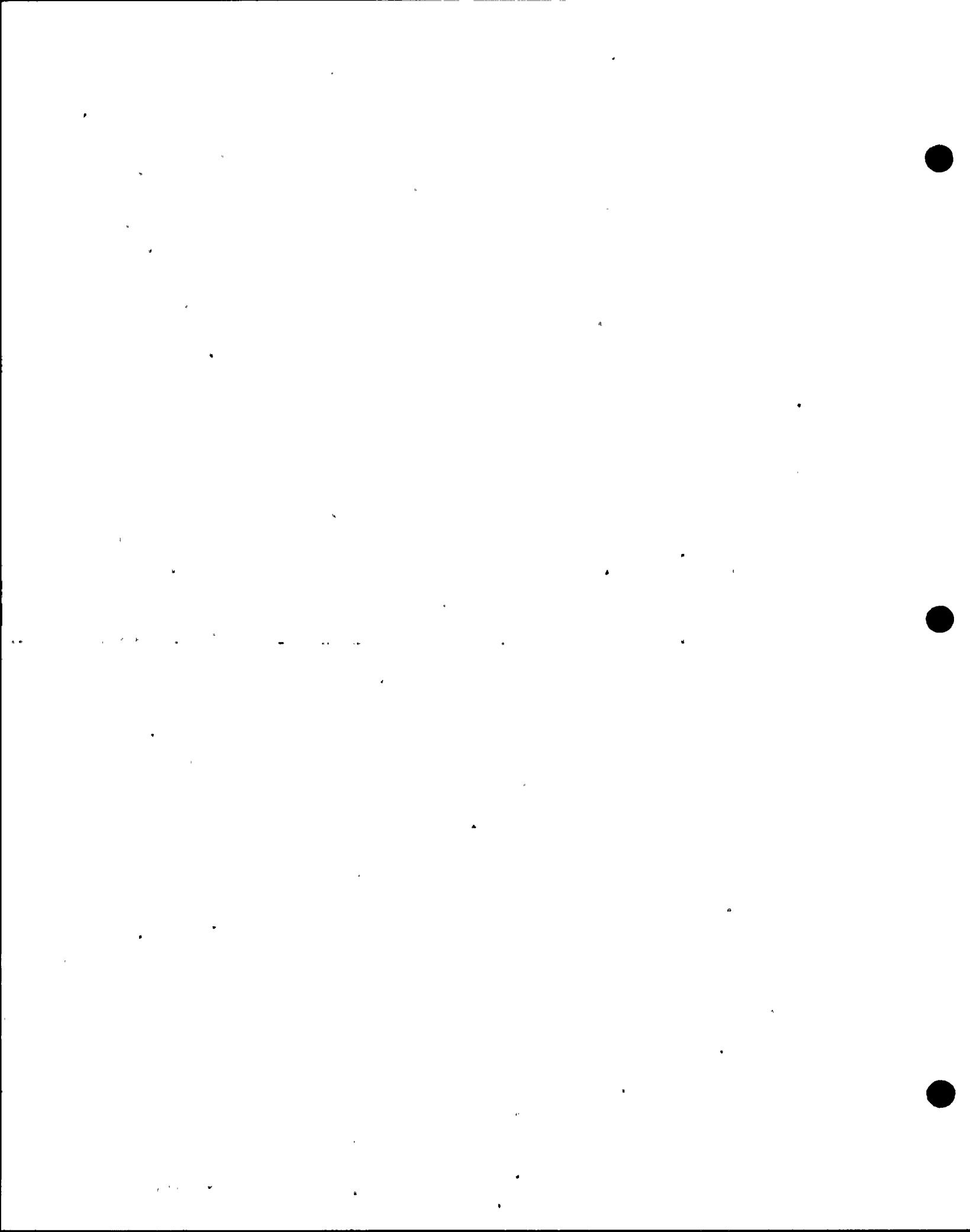
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
15	38	<20	OD	'5" above tubesheet
15	40	"	"	"
15	41	"	"	"
15	42	"	"	"
15	43	"	"	"
15	44	"	"	"
15	45	"	"	"
15	46	"	"	at top of tubesheet
16	28	"	"	"
16	29	"	"	'2" above tubesheet
16	30	"	"	"
16	31	"	"	"
16	32	"	"	"
16	33	"	"	"
16	34	"	"	"
16	35	"	"	"
16	37	"	"	"
16	38	"	"	"
16	40	"	"	"



EDDY CURRENT TEST RESULTS

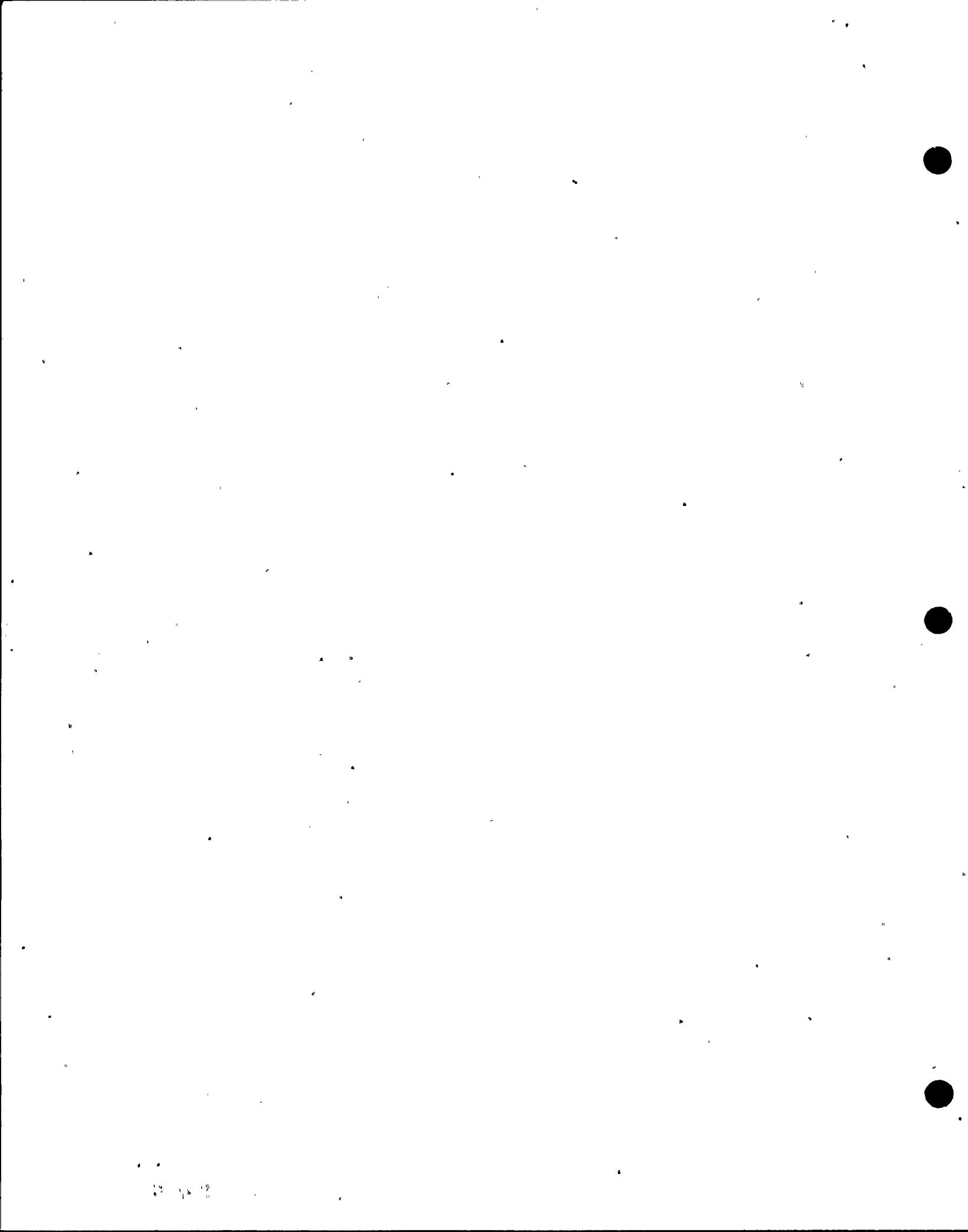
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
16	41	<20	O.D.	1/2" above tubesheet
16	42	"	"	"
16	43	"	"	"
16	44	"	"	"
16	45	"	"	"
16	46	"	"	at top of tubesheet
17	29	"	a	1/2" above tubesheet
17	30	4	"	"
17	31	4	"	"
17	32	4	"	"
17	33	4	"	"
17	34	4	"	"
17	35	4	"	"
17	36	4	"	"
17	41	20	"	"
17	42	4	"	"
17	43	4	"	"
17	44	4	"	"
17	45	4	"	"



EDDY CURRENT TEST RESULTS

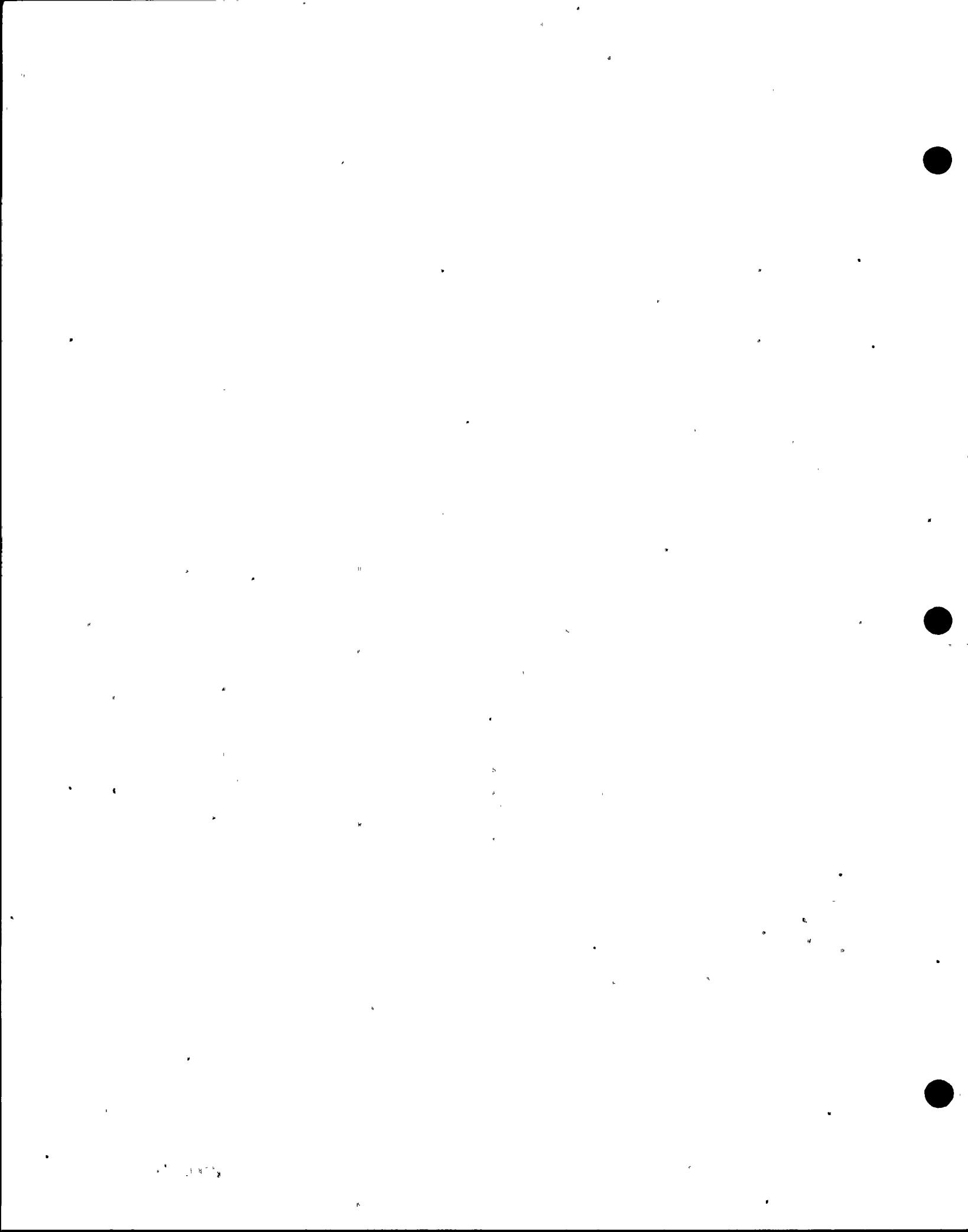
SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
18	31	<20	O.D.	1/2" above tubesheet
18	33	27	"	"
18	34	<20	"	"
18	39	"	"	"
18	40	30	"	"
18	41	<20	"	at top of tubesheet
18	42	4	"	"
19	33	4	"	1/2" above tubesheet
19	34	4	"	"
20	33	4	"	"
20	34	4	"	"
20	35	4	"	"
20	37	4	"	"



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT #3

STEAM GENERATOR: LOOP B; COLD LEG

TEST FREQUENCY: 25 KHZ

DATE:

OCTOBER 1974

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
7	20	3"	7	70	2"
	22	3"		72	2"
	24	3"		74	2"
	26	3"		76	1 1/2"
	28	3"		78	1 1/2"
	30	3 1/2"		80	0
	32	3 1/2"		82	0
	34	3 1/2"	14	20	3"
	36	4"		22	3 1/2"
	38	4"		24	3 1/2"
	40	5"		26	3 1/2"
	42	5 1/2"		28	3 1/2"
	44	5"		30	3 1/2"
	46	3 1/2"		32	4"
	56	1 1/2"		34	4 1/2"
	58	1 1/2"		36	4"
	60	1 1/2"		38	4"
	62	1 1/2"		40	4"
	64	1 1/2"		42	4"
	66	1 1/2"			
	68	1 1/2"			

EDDY CURRENT TEST RESULTS

SITE:

STEAM GENERATOR:

TEST FREQUENCY:

DATE:

ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
14	44	4"	21	28	42"
	46	4"		30	5"
	56	2"		32	5"
	58	3"		34	5"
	60	3"		36	5"
	62	2"		38	52"
	64	2"		40	5"
	66	2"		42	5"
	68	2"		44	4"
	70	2"		46	5"
	72	2"		56	32"
	74	2"		58	4"
	76	12"		60	32"
	78	0		62	32"
	80	0		64	32"
	82	0		66	4"
21	20	0		68	4"
	22	12"		70	32"
	24	12"		72	2"
	26	4"		74	5"

EDDY CURRENT TEST RESULTS

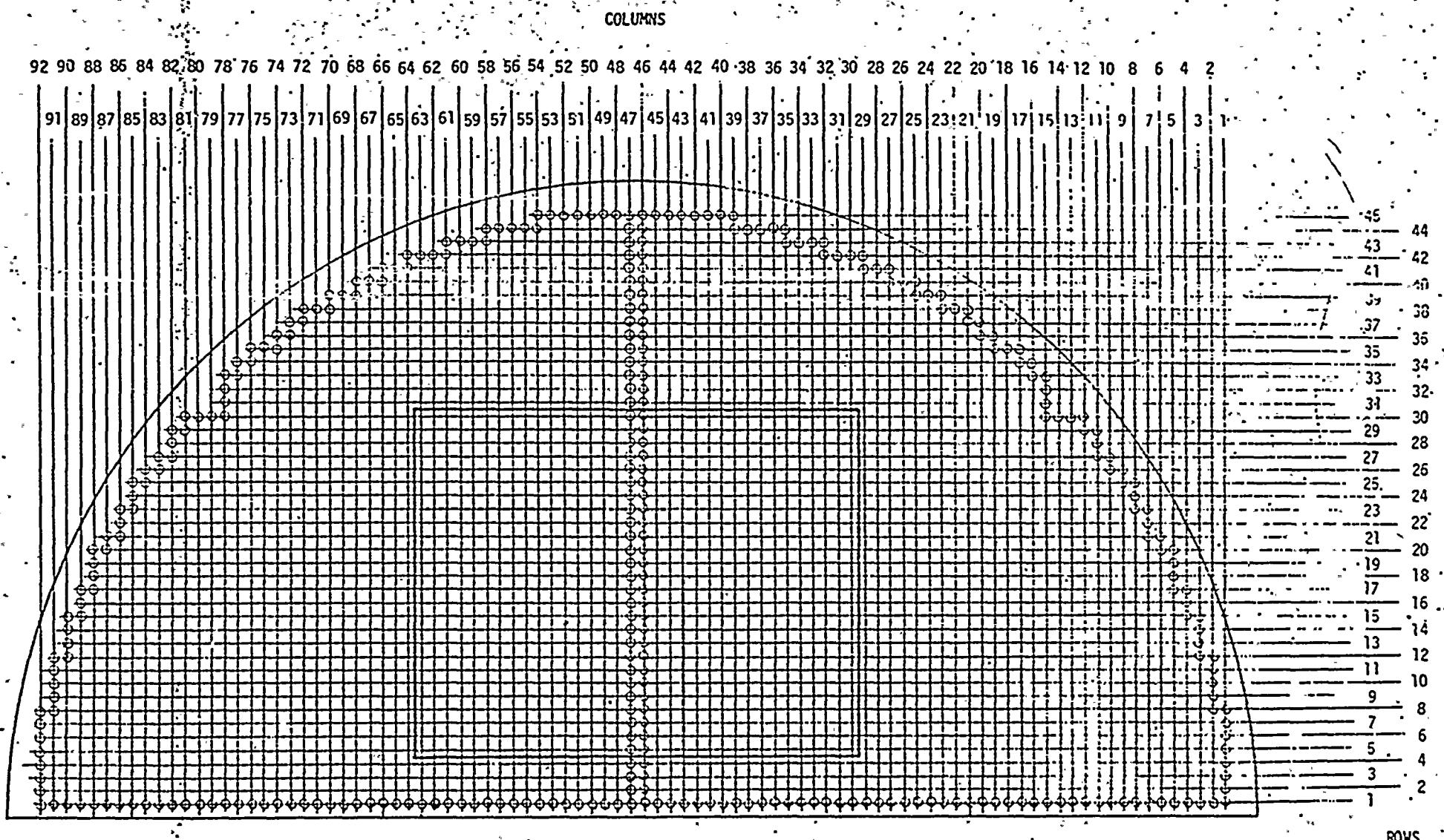
SITE:

STEAM GENERATOR

TEST FREQUENCY:

DATE:

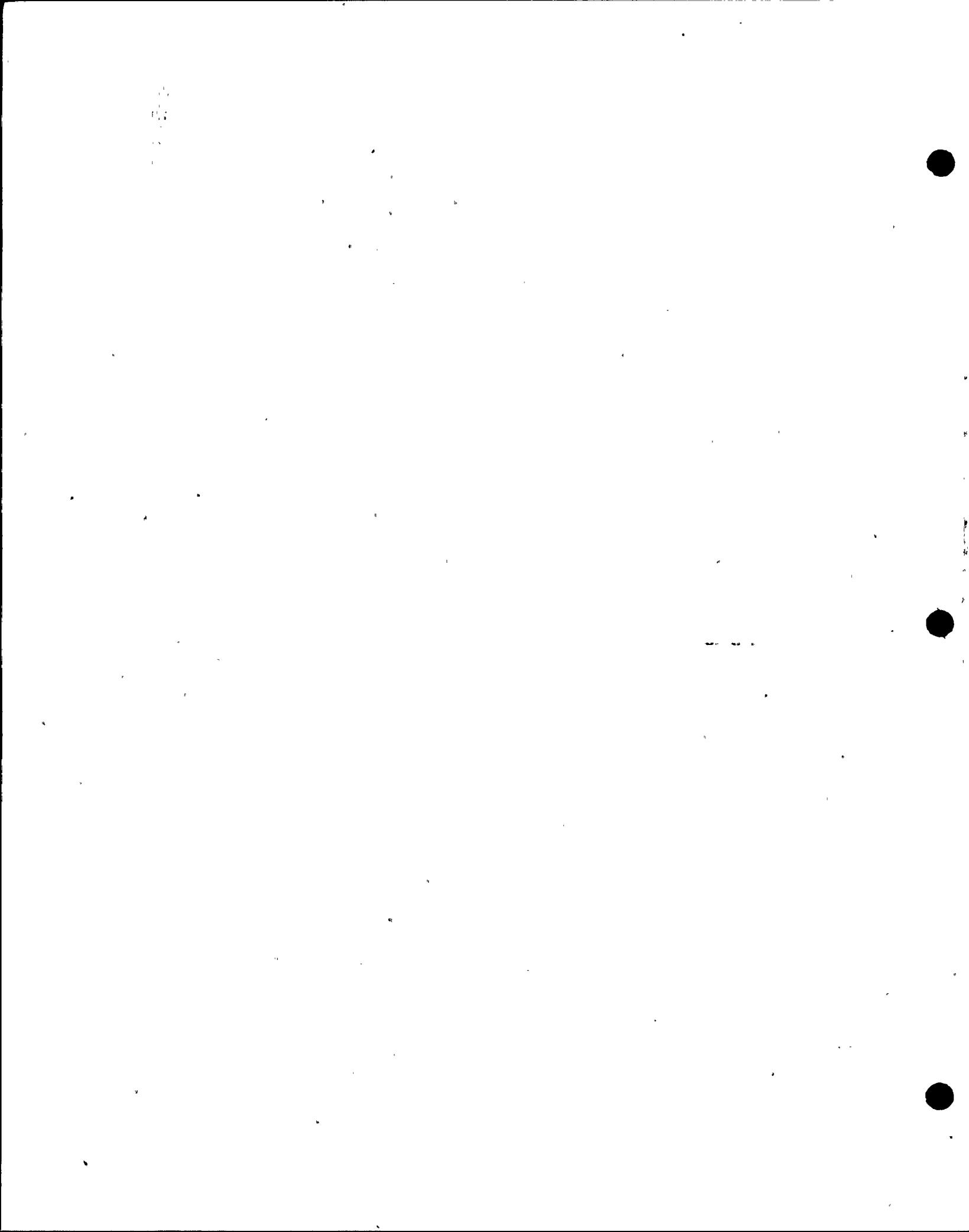
ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS	ROW	COLUMN	RECORDED HEIGHT OF DEPOSITS
21	76	0	28	62	1"
	78	0		64	0"
	80	0		66	0"
	82	0		68	0"
28	20	0		70	0
	22	0		72	0
	24	0		74	0
	26	0		76	0
	28	0		78	0
	30	5"		80	0
	32	2"		82	0
	34	4"			
	36	3"			
	38	25"			
	40	3"			
	42	15"			
	44	22"			
	46	4"			
	56	3½"			
	58	3½"			
	60	2"			

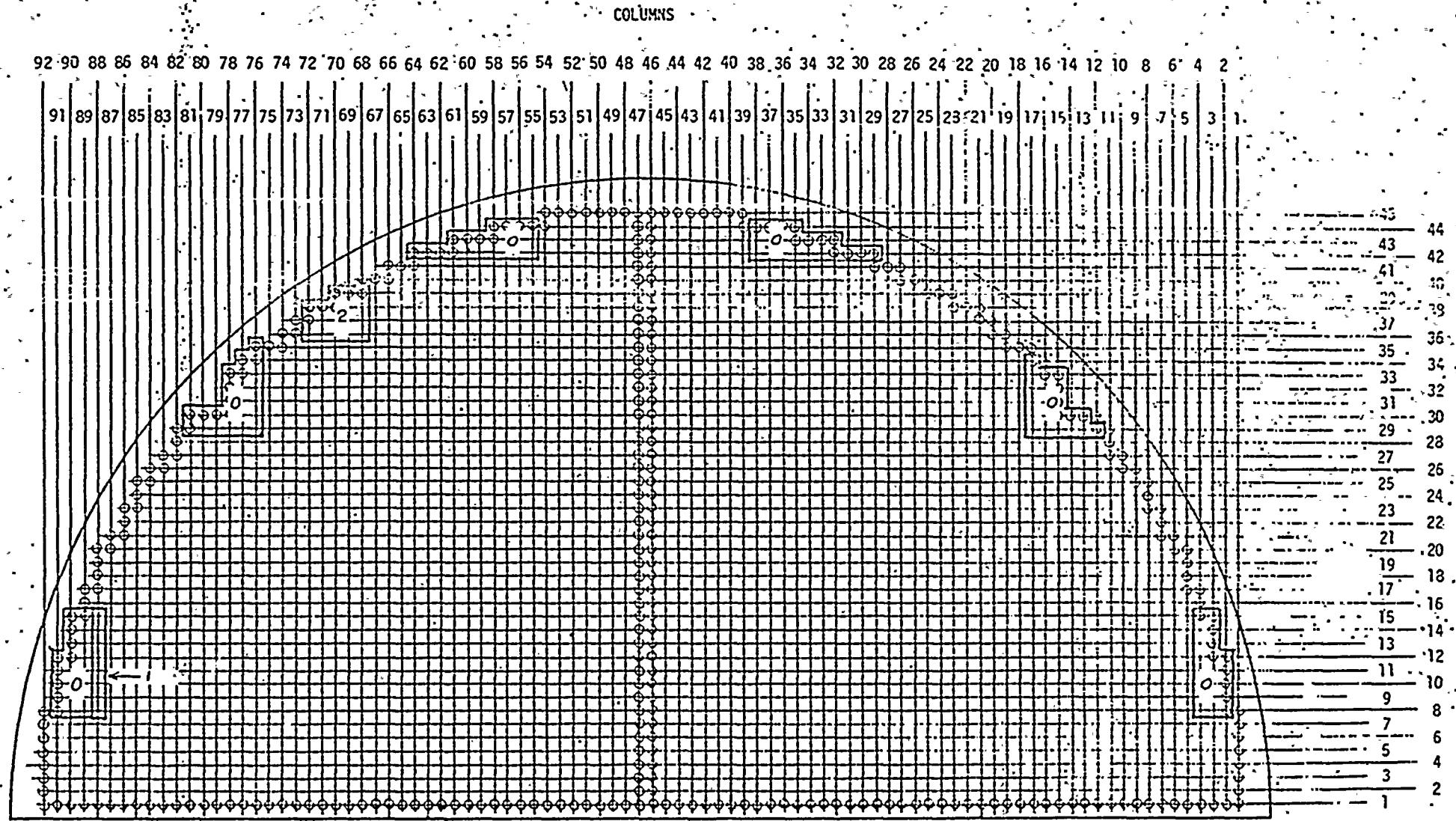


← MANWAY

Steam Generator B - Inlet 400 KHZ to First Support

NOZZLE →



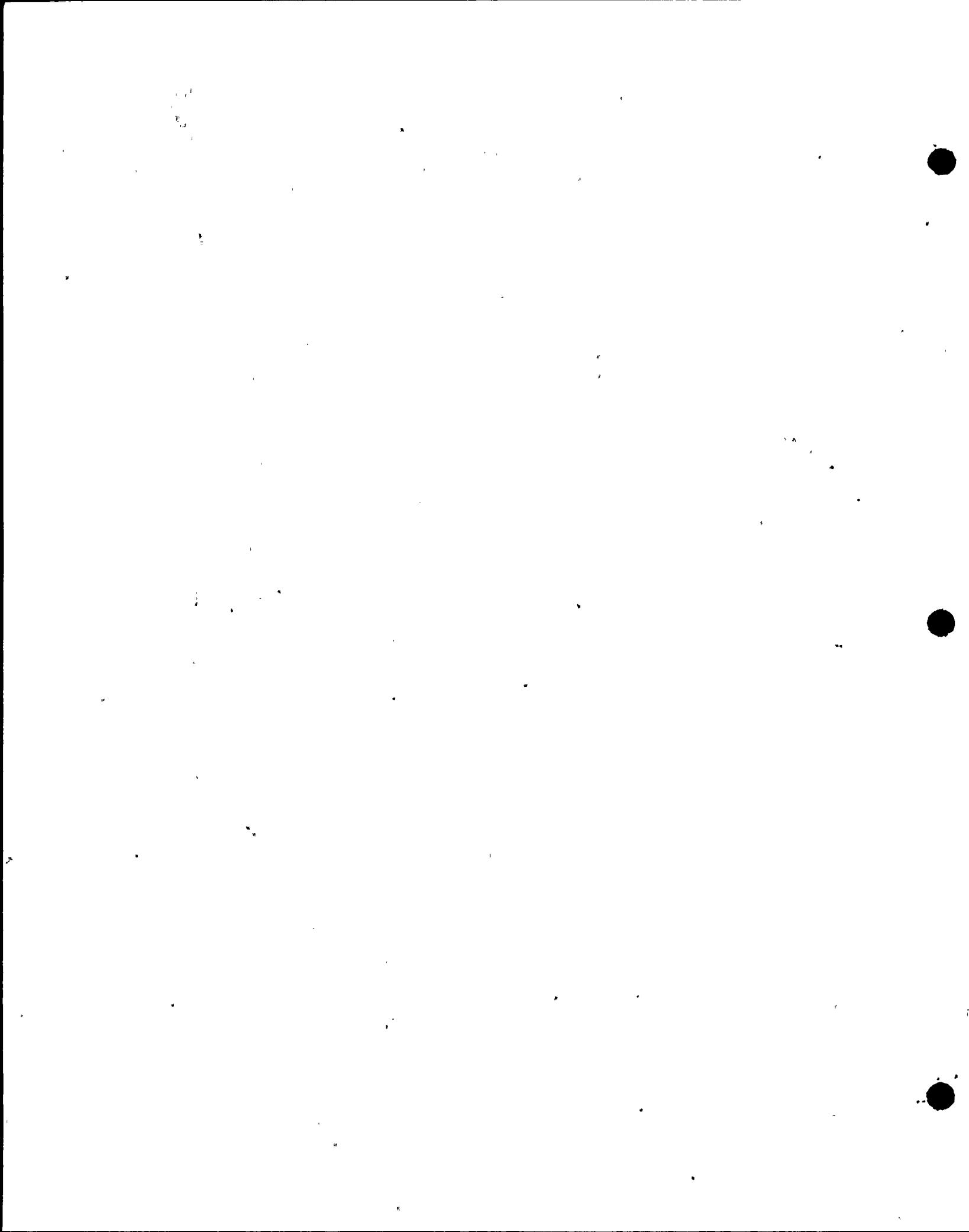


← MANWAY

Steam Generator B - Inlet 400 KHZ Around U-Bend

→ NOZZLE

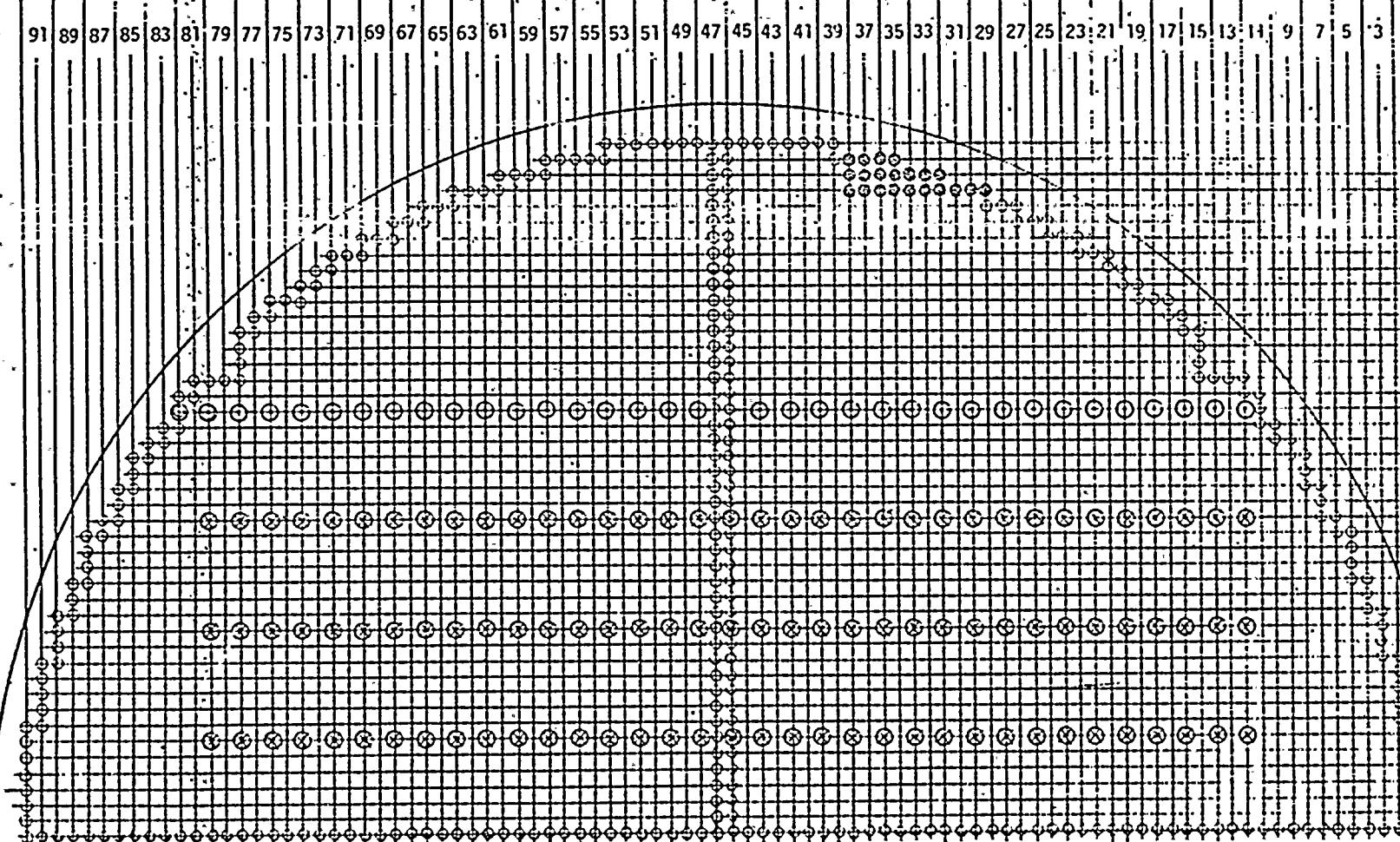
ROWS



100 KHZ Around
25 KHZ Through First
100 KHZ Through First Support

COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

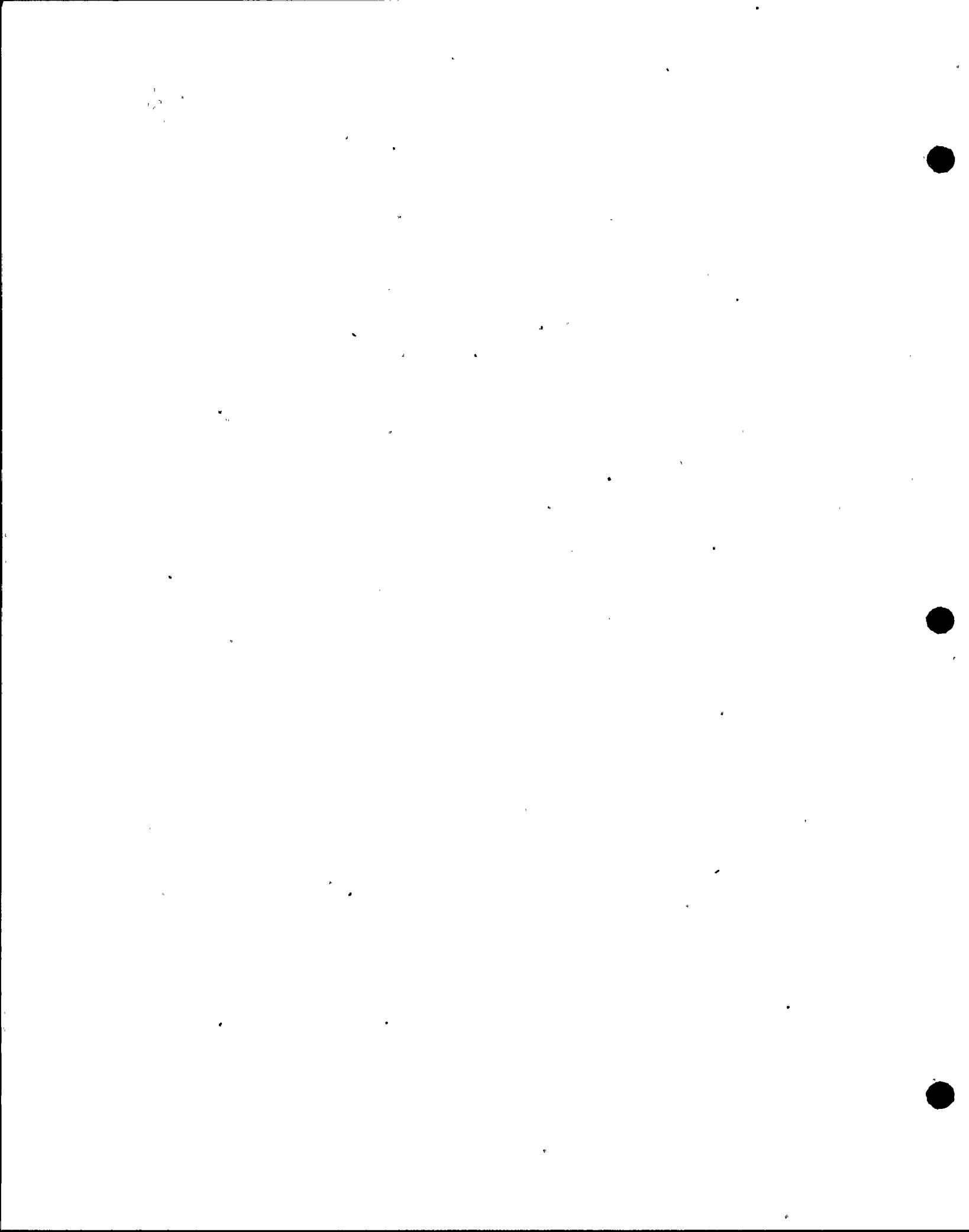


ROWS

← MANWAY

Steam Generator 8 - Inlet 25 and 100 KHZ Testing

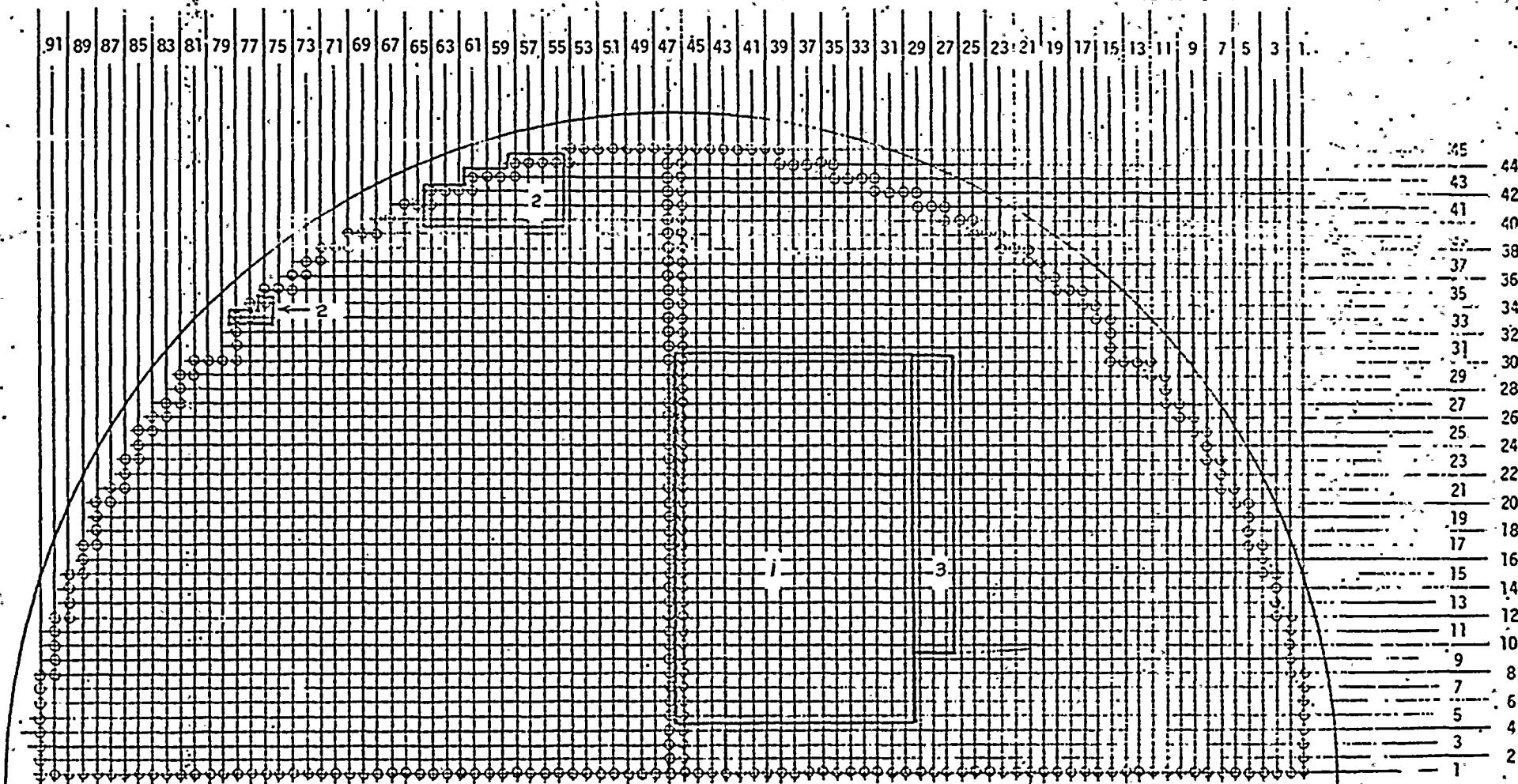
NOZZLE →



- 1 - Original Scope Support
 2 - Original Scope - Around U-Bend
 3 - Expanded Scope - Around U-Bend

COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14,12 10 8 6 4 2



← MANWAY

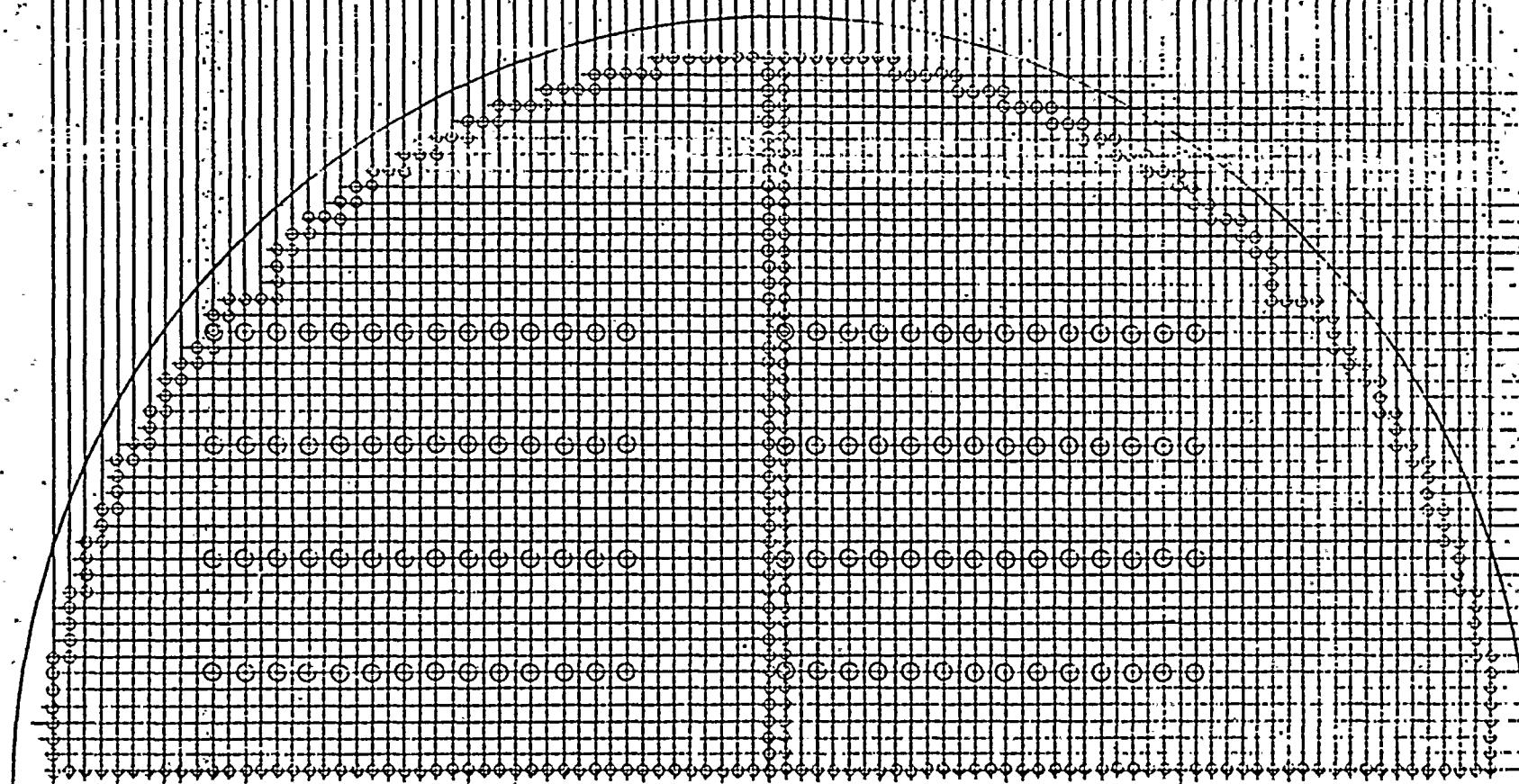
Steam Generator B - Outlet 400 KHZ Testing

NOZZLE →

COLUMBUS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 .52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23-21 19 17-15 13 11 9 7-5 3

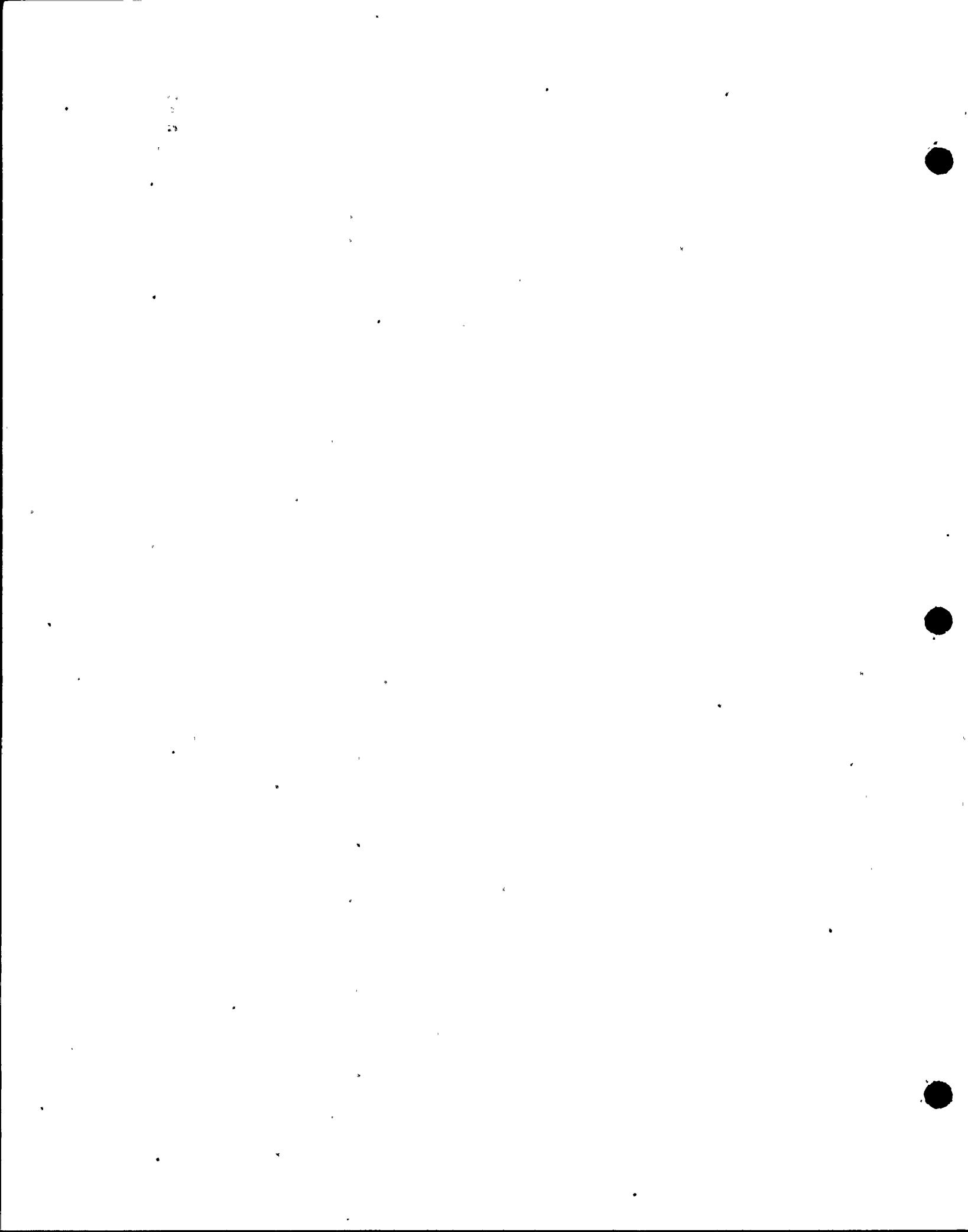


MANWAY

Steam Generator B' - Outlet 25 KHZ to First Support

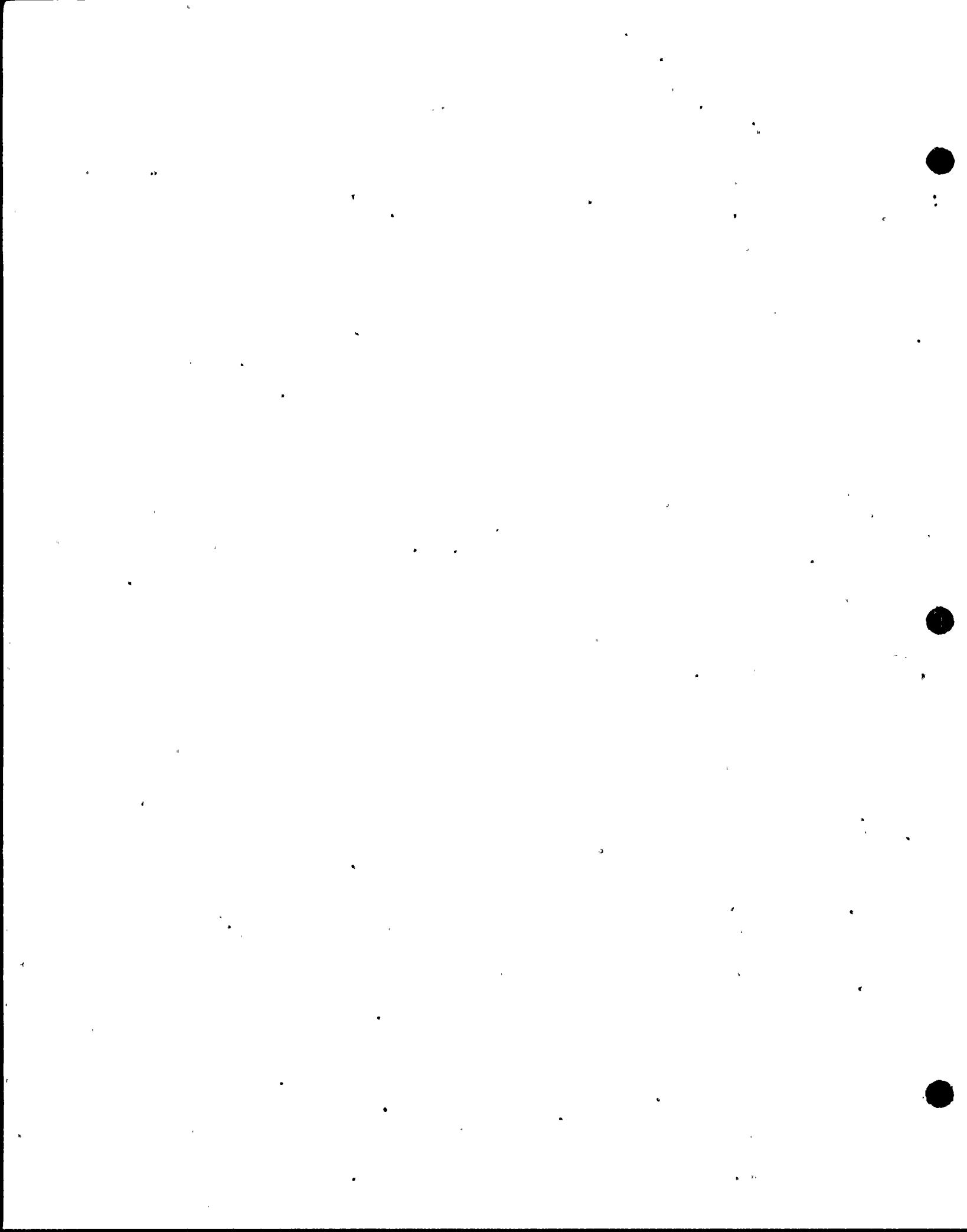
NOZZLE →

ROHS



APPENDIX G-3

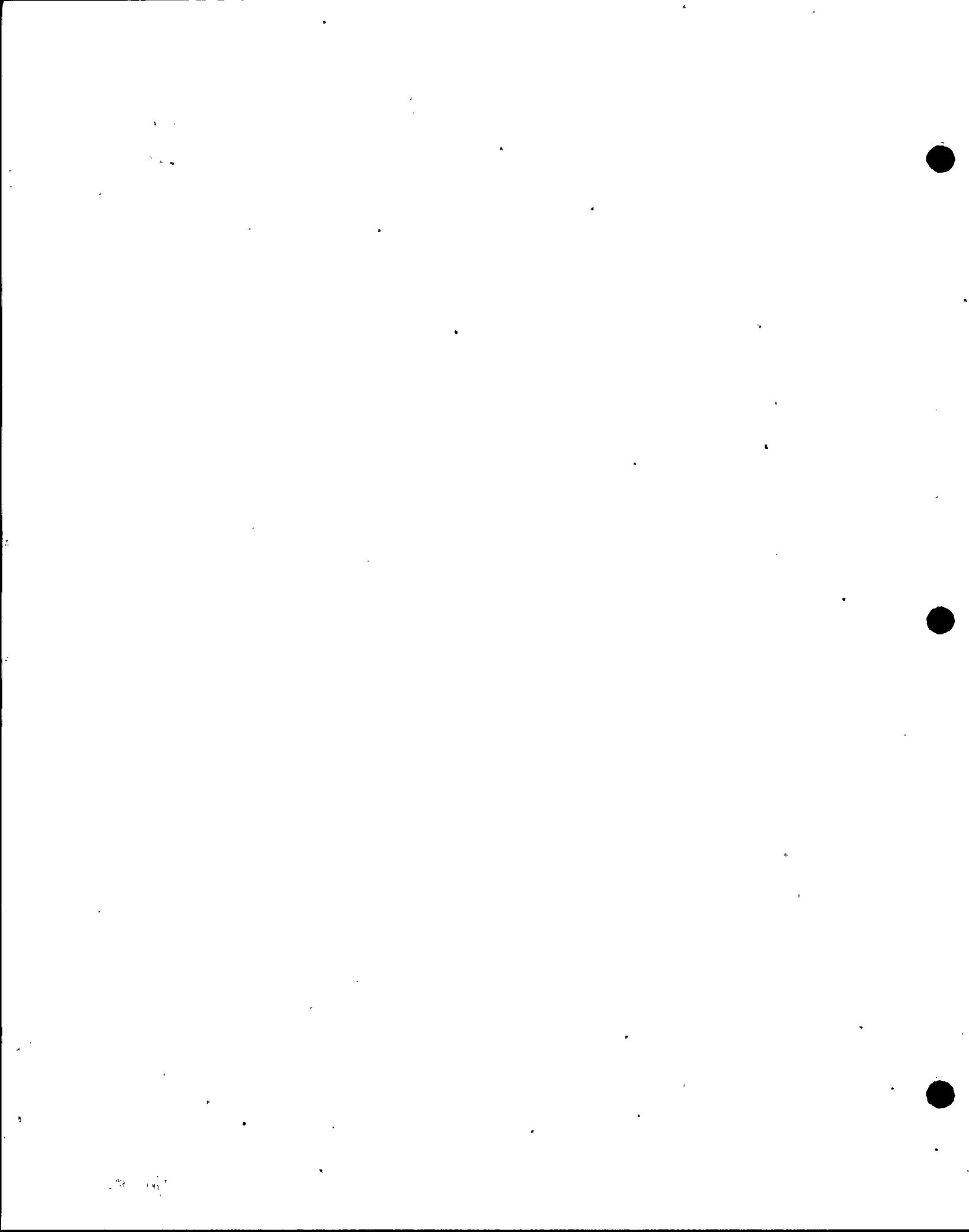
Steam Generator C



EDDY CURRENT TEST RESULTS.

SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHZSTEAM GENERATOR: "C" INLET
DATE: Nov, 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
14	46	<20	O.D.	1/2" ABOVE TUBESHEET
15	35	<20	O.D.	AT TOP OF TUBESHEET
15	40	<20	O.D.	" " " "
15	42	<20	O.D.	" " " "
15	43	<20	O.D.	" " " "
15	44	<20	O.D.	" " " "
15	45	<20	O.D.	1/2" ABOVE TUBESHEET
15	46	<20	O.D.	" " " "
16	35	<20	O.D.	AT TOP OF TUBESHEET
16	36	<20	O.D.	1/2" ABOVE TUBESHEET
16	37	<20	O.D.	AT TOP OF TUBESHEET
16	38	<20	O.D.	" " " "
16	39	<20	O.D.	" " " "
16	40	<20	O.D.	" " " "
16	41	44	O.D.	" " " "
16	42	<20	O.D.	" " " "
16	43	<20	O.D.	" " " "
16	45	<20	O.D.	1/2" ABOVE TUBESHEET
16	46	<20	O.D.	" " " "
17	35	<20	O.D.	AT TOP OF TUBESHEET
17	36	<20	O.D.	1/2" ABOVE TUBESHEET
17	37	<20	O.D.	AT TOP OF TUBESHEET
17	38	<20	O.D.	1/2" ABOVE TUBESHEET
17	39	32	O.D.	" " "
17	40	<20	O.D.	" " "
17	41	<20	O.D.	" " "
17	42	32	O.D.	" " "



EDDY CURRENT TEST RESULTS

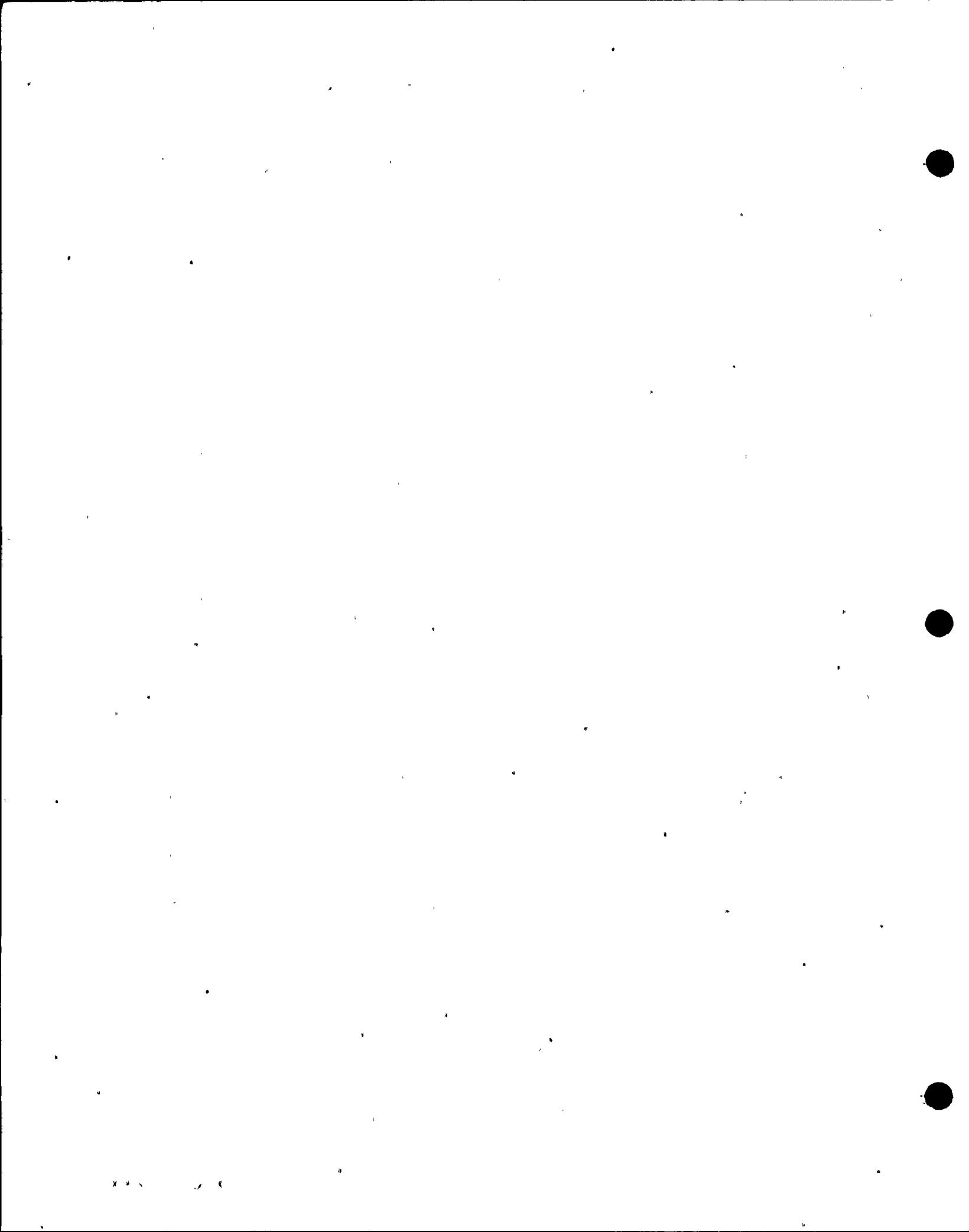
SITE: TURKEY POINT UNIT 3
TEST FREQUENCY: 400 KHzSTEAM GENERATOR: "C" INLET
DATE: Nov, 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
17	43	<20	O.D.	1/2" ABOVE TUBESHEET
17	44	<20	O.D.	" " "
17	45	<20	O.D.	" " "
18	33	<20	O.D.	AT TOP OF TUBESHEET
18	34	<20	O.D.	" " "
18	35	<20	O.D.	" " "
18	36	<20	O.D.	1/2" ABOVE TUBESHEET
18	37	<20	O.D.	" " "
18	38	<20	O.D.	" " "
18	39	<20	O.D.	1" " "
18	40	<20	O.D.	1/2" " "
18	41	<20	O.D.	1" " "
18	42	31	O.D.	1" " "
18	43	<20	O.D.	1" " "
18	44	<20	O.D.	1/2" " "
18	45	<20	O.D.	" " "
18	46	<20	O.D.	" " "
19	37	<20	O.D.	" " "
19	39	<20	O.D.	" " "
19	40	26	O.D.	" " "
19	41	<20	O.D.	1" " "
19	42	<20	O.D.	" " "
19	43	<20	O.D.	" " "
19	44	<20	O.D.	1/2" " "
19	45	<20	O.D.	" " "
19	46	<20	O.D.	" " "
20	38	<20	O.D.	AT TOP OF TUBESHEET

EDDY CURRENT TEST RESULTS

SITE: TURKEY Point UNIT 3
TEST FREQUENCY: 400 KHzSTEAM GENERATOR: "C" INLET
DATE: NOV, 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
20	39	<20	O.D.	AT TOP OF TUBESHEET
20	40	<20	O.D.	1/2" ABOVE TUBESHEET
20	41	<20	O.D.	1 1/2" " "
20	42	<20	O.D.	" " "
20	43	<20	O.D.	" " "
20	44	21	O.D.	1/2" " "
20	45	<20	O.D.	" " "
20	46	<20	O.D.	AT TOP OF TUBESHEET
21	39	<20	O.D.	1/2" ABOVE TUBESHEET
21	40	<20	O.D.	" " "
21	41	<20	O.D.	" " "
21	42	<20	O.D.	" " "
21	43	49	O.D.	" " "
21	44	<20	O.D.	" " "
21	45	<20	O.D.	" " "
21	46	<20	O.D.	" " "
22	40	<20	O.D.	" " "
22	41	<20	O.D.	" " "
22	42	<20	O.D.	" " "
22	43	20	O.D.	" " "
22	44	21	O.D.	" " "
22	45	<20	O.D.	" " "
22	46	<20	O.D.	" " "
23	41	<20	O.D.	AT TOP OF TUBESHEET
23	43	<20	O.D.	" " "
23	44	<20	O.D.	" " "
25	37	<20	O.D.	" " "



EDDY CURRENT TEST RESULTS

SITE: TURKEY POINT UNIT 3
TEST. FREQUENCY: 400 KHZ

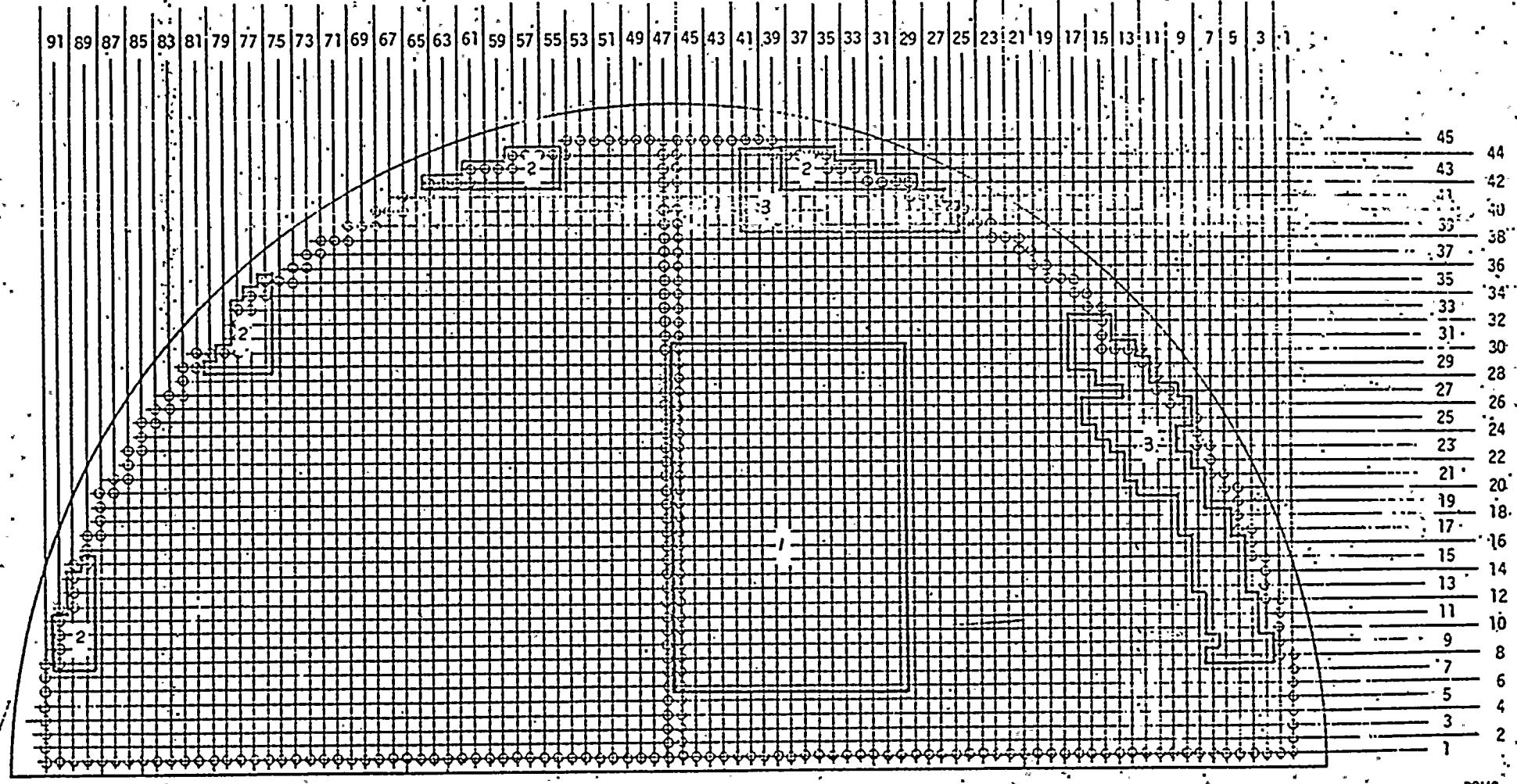
STEAM GENERATOR: "C" INLET
DATE: Nov 1974

ROW	COLUMN	% DEFECT	ORIGIN	LOCATION
25	40	<20	O.D.	AT TOP OF TUBESHEET
26	36	<20	O.D.	" " " "
26	37	<20	O.D.	" " " "
26	38	<20	O.D.	" " " "
27	39	<20	O.D.	" " " "
27	40	<20	O.D.	" " " "
28	37	<20	O.D.	1/2" ABOVE TUBESHEET
28	38	<20	O.D.	" " " "
28	39	43	O.D.	" " " "
28	40	<20	O.D.	AT TOP OF TUBESHEET
29	37	<20	O.D.	1/2" ABOVE TUBESHEET
29	38	31	O.D.	" " " "
29	39	<20	O.D.	AT TOP OF TUBESHEET
29	40	<20	O.D.	" " " "
29	42	<20	O.D.	1/2" ABOVE TUBESHEET
41	32	53	O.D.	6" " " " "
43	33	<20	O.D.	1" ABOVE #6 SUPPORT
43	34	54	O.D.	3" " " " "
43	35	75	O.D.	2" " " " "
44	35	55	O.D.	1" " " " "
44	36	64	O.D.	1" " " " "
44	37	50	O.D.	1" " " " "
44	38	<20	O.D.	AT #6 SUPPORT

- 1 - Original Scope
 2 - Expanded Scope Around U-Bends
 3 - Expanded Scope No. 2-Around U-Bends

COLUMNS

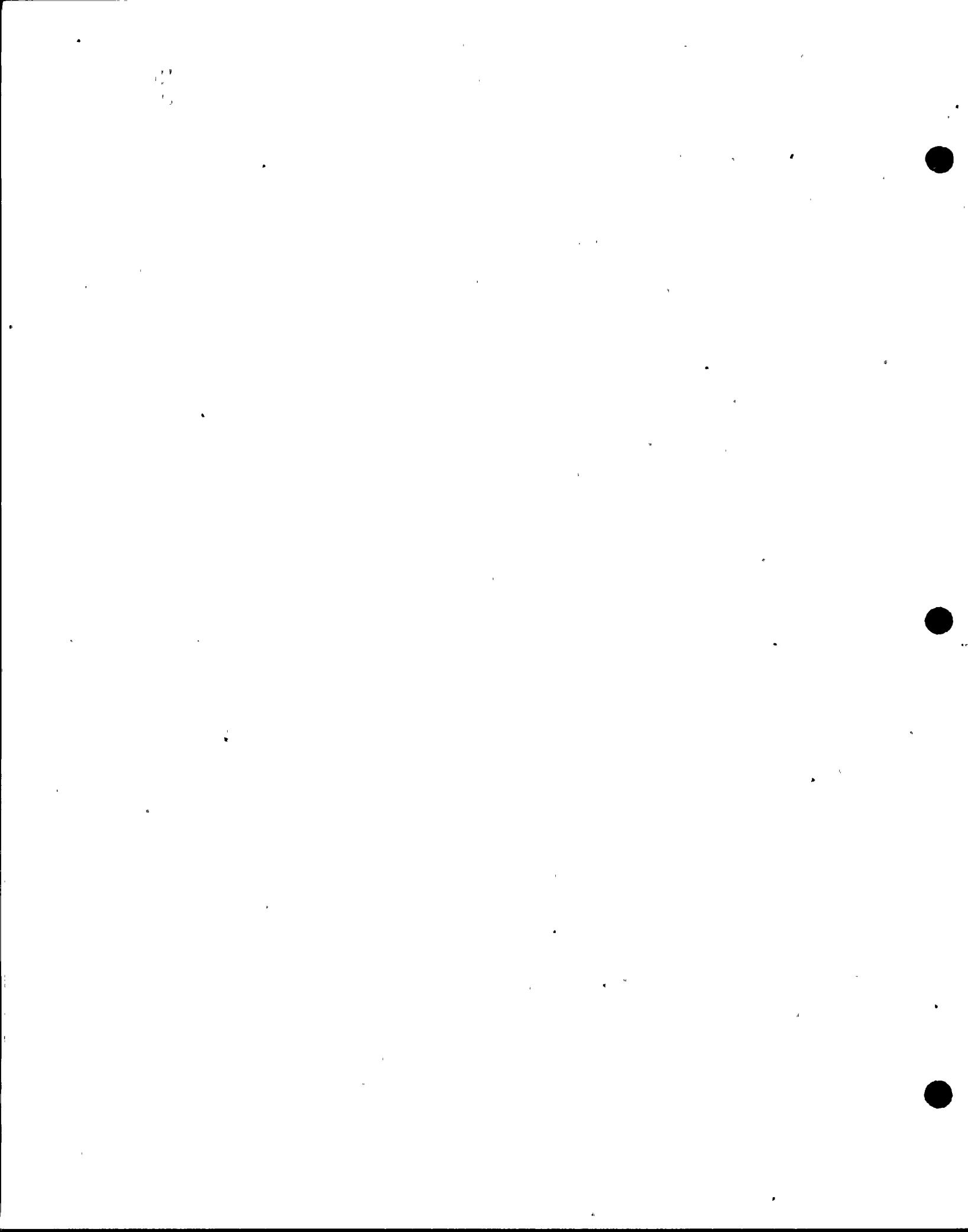
92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18-16 14 12 10 8 6 4 2



← MANWAY

Steam Generator C - Inlet 400 KHZ Testing

NOZZLE →



COLUMNS

92 90 88 86 84.82 80 78 76 74 72 70 68 66.64 62 60 58 56 54 52 50 48 46.44 42 40.38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

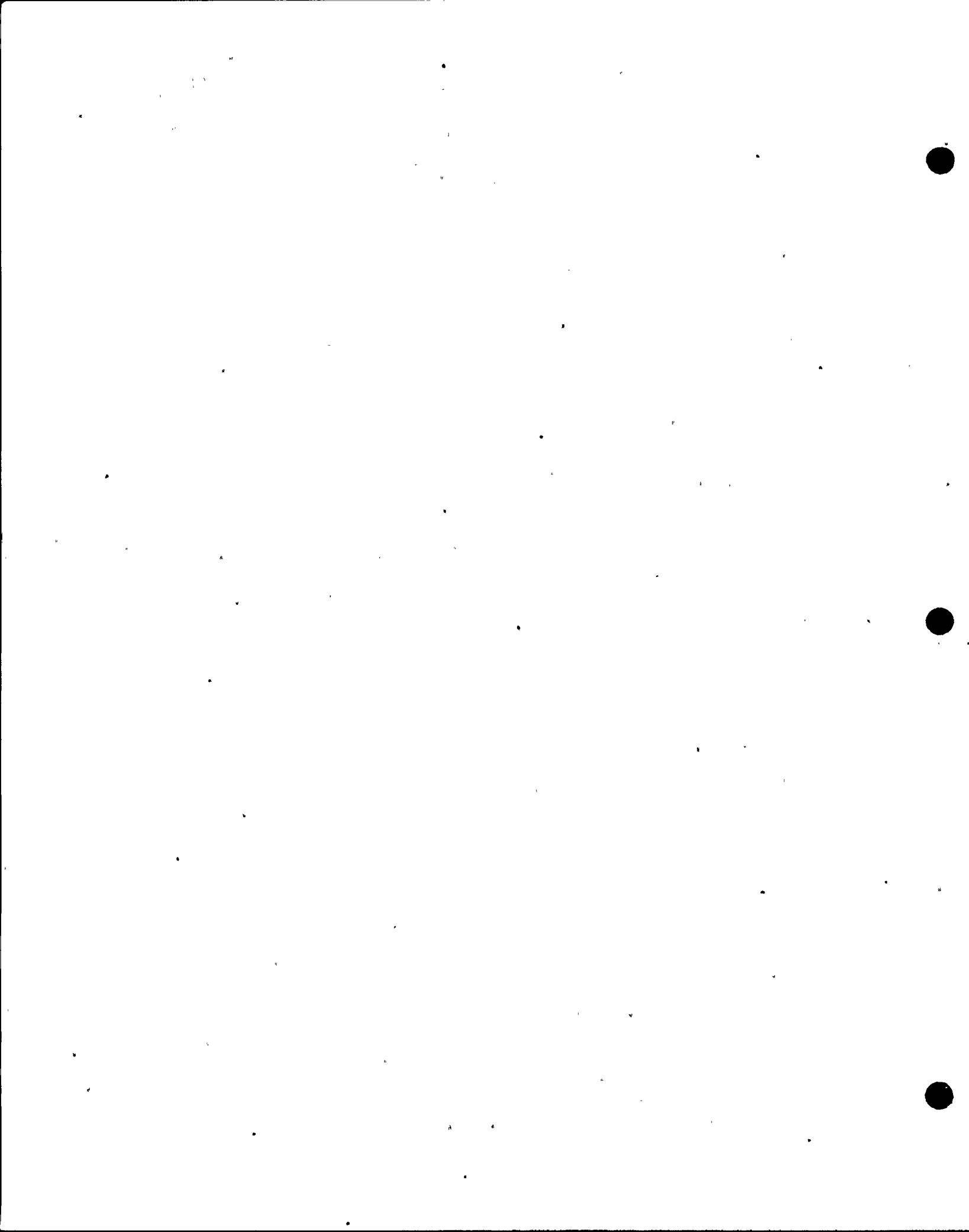
A scatter plot with a grid of points. The x-axis and y-axis both range from 1 to 45. A diagonal line of points (y=x) runs from (1,1) to (45,45). A curved line starts at approximately (10, 10), peaks near (25, 40), and ends at approximately (40, 10). A grid of points is also shown.

MAINWAY

Steam Generator C - Inlet 409 KHZ Through First Support.

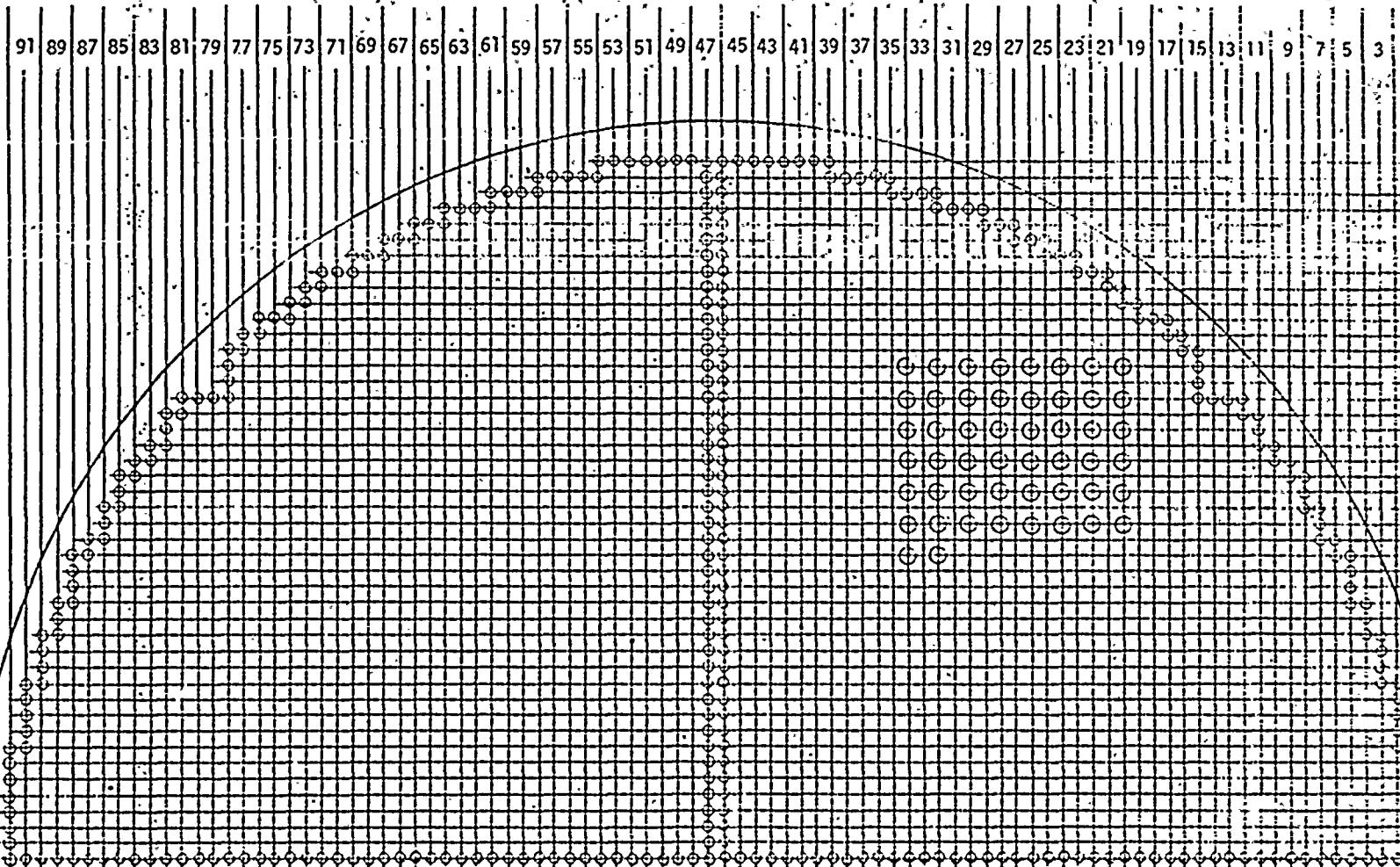
NOZZLE

.ROWS



COLUMNS

92 90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56,54 52 50 48 46 44 42,40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2

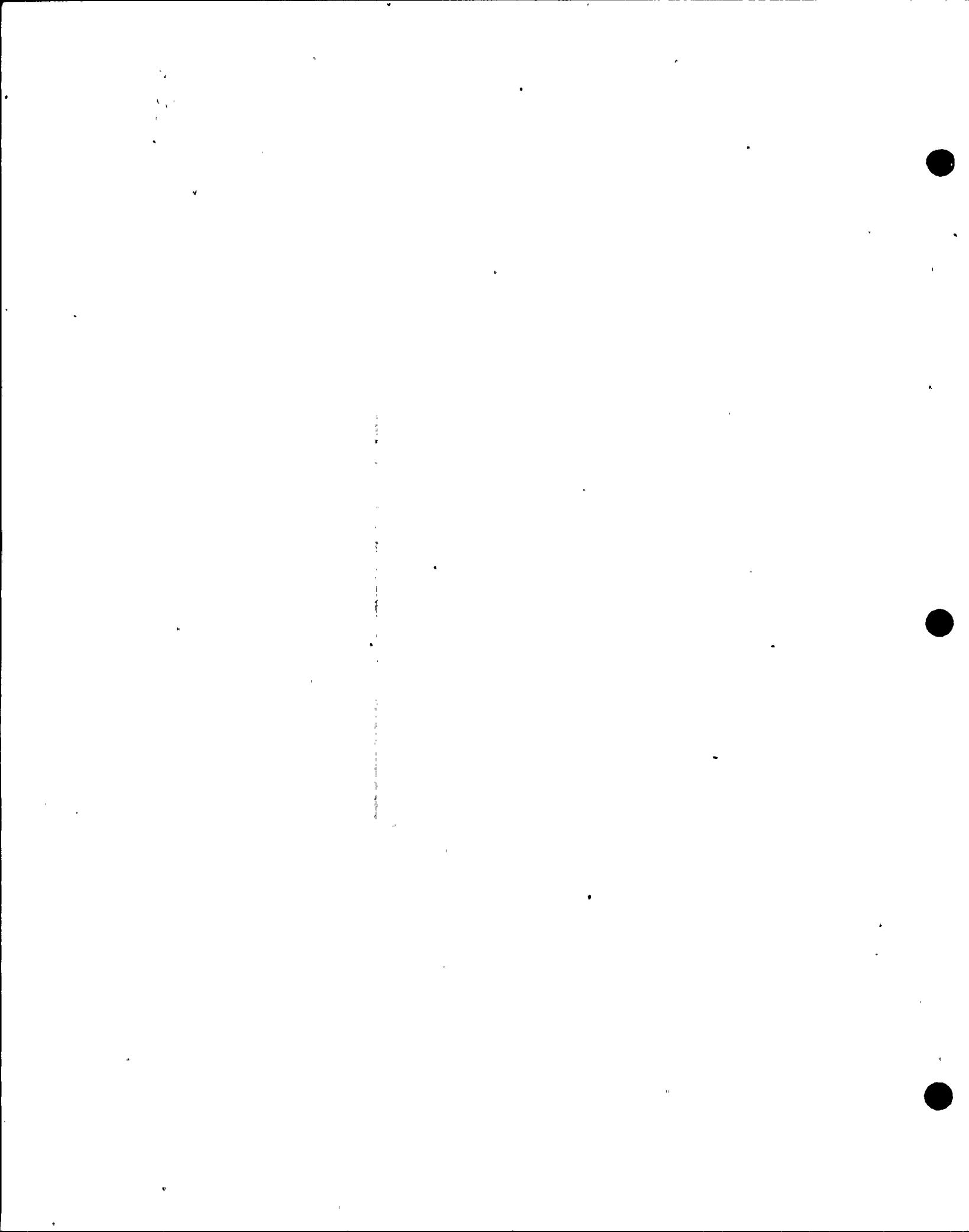


ROWS

← MAINWAY

Steam Generator C - Outlet 400 KHZ Around U-Bend

NOZZLE →



APPENDIX G-4

Explosive Plugging

Listed below by steam generator are the tubes which were explosively plugged:

Steam Generator A

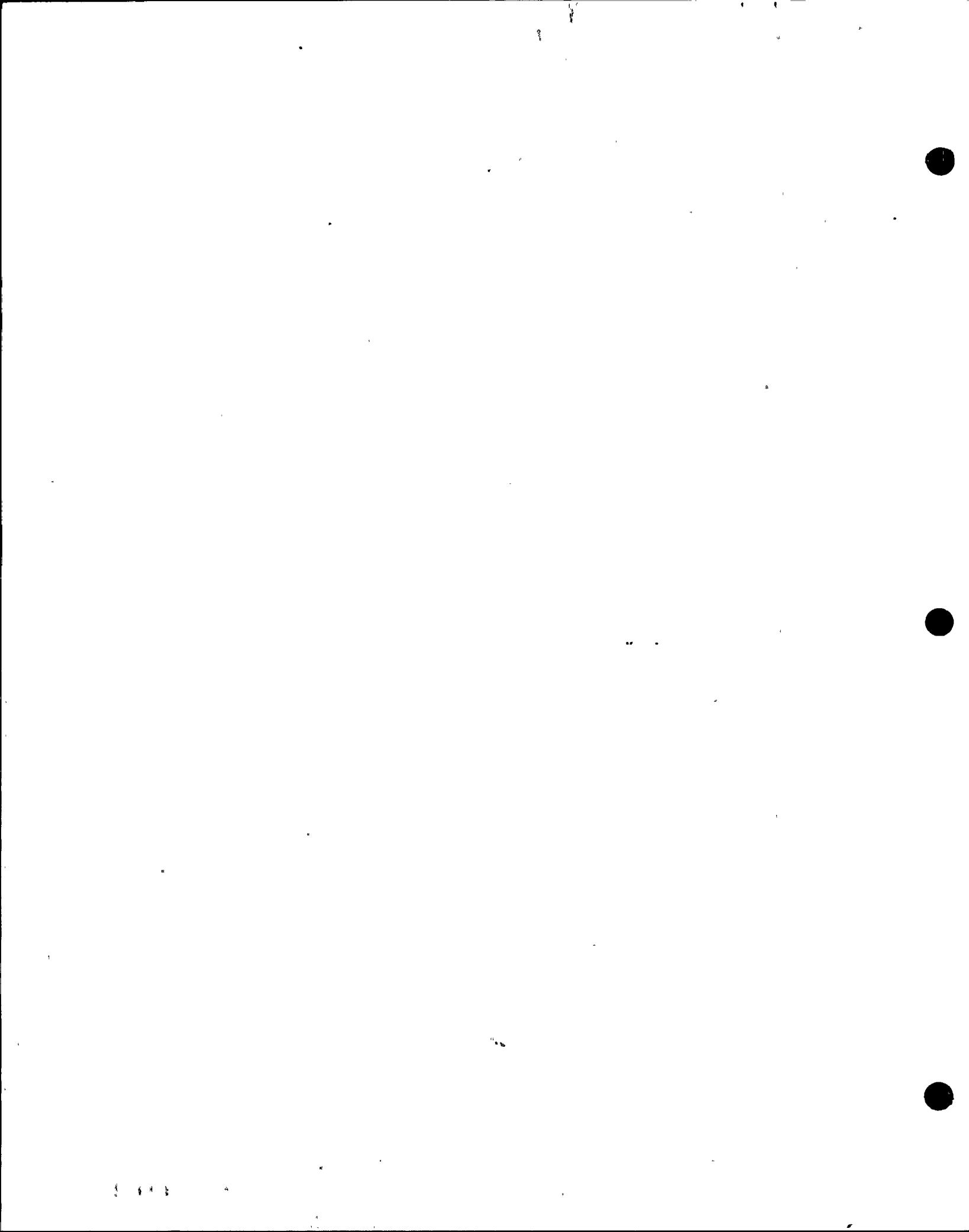
Row 8 Column 90
Row 15 Column 61
Row 16 Column 29
Row 17 Column 63
Row 19 Column 30
Row 19 Column 39
Row 19 Column 40
Row 20 Column 38
Row 20 Column 39
Row 21 Column 39
Row 21 Column 41
Row 23 Column 61
Row 32 Column 78
Row 43 Column 33
Row 43 Column 37
Row 44 Column 36
Row 44 Column 41
Row 45 Column 47
Row 45 Column 49

Steam Generator C

Row 41 Column 32
Row 43 Column 34
Row 43 Column 35
Row 44 Column 35
Row 44 Column 36
Row 44 Column 37

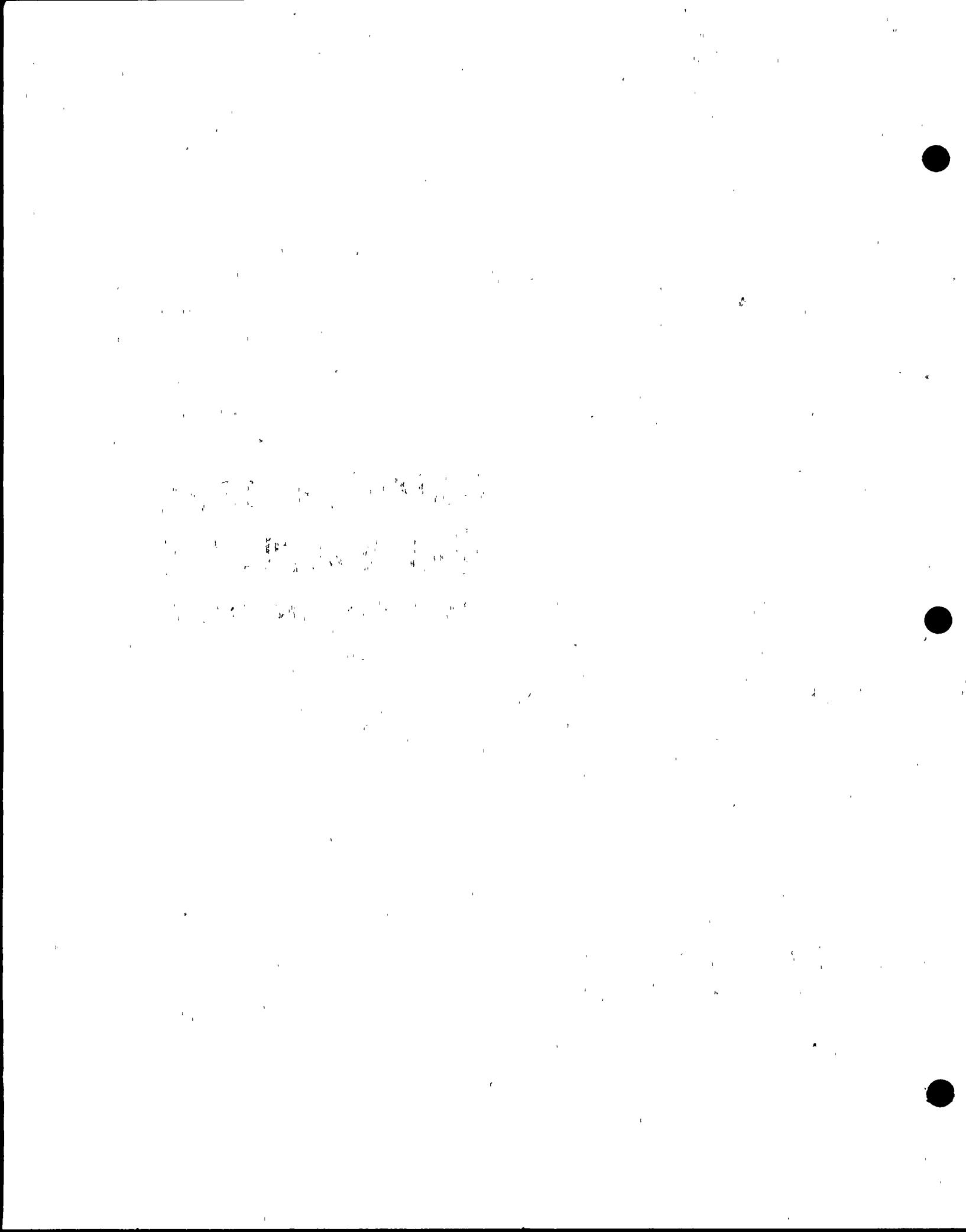
Steam Generator B

Row 13 Column 89
Row 29 Column 81
Row 30 Column 79
Row 31 Column 78
Row 42 Column 32
Row 43 Column 33
Row 43 Column 34



APPENDIX H

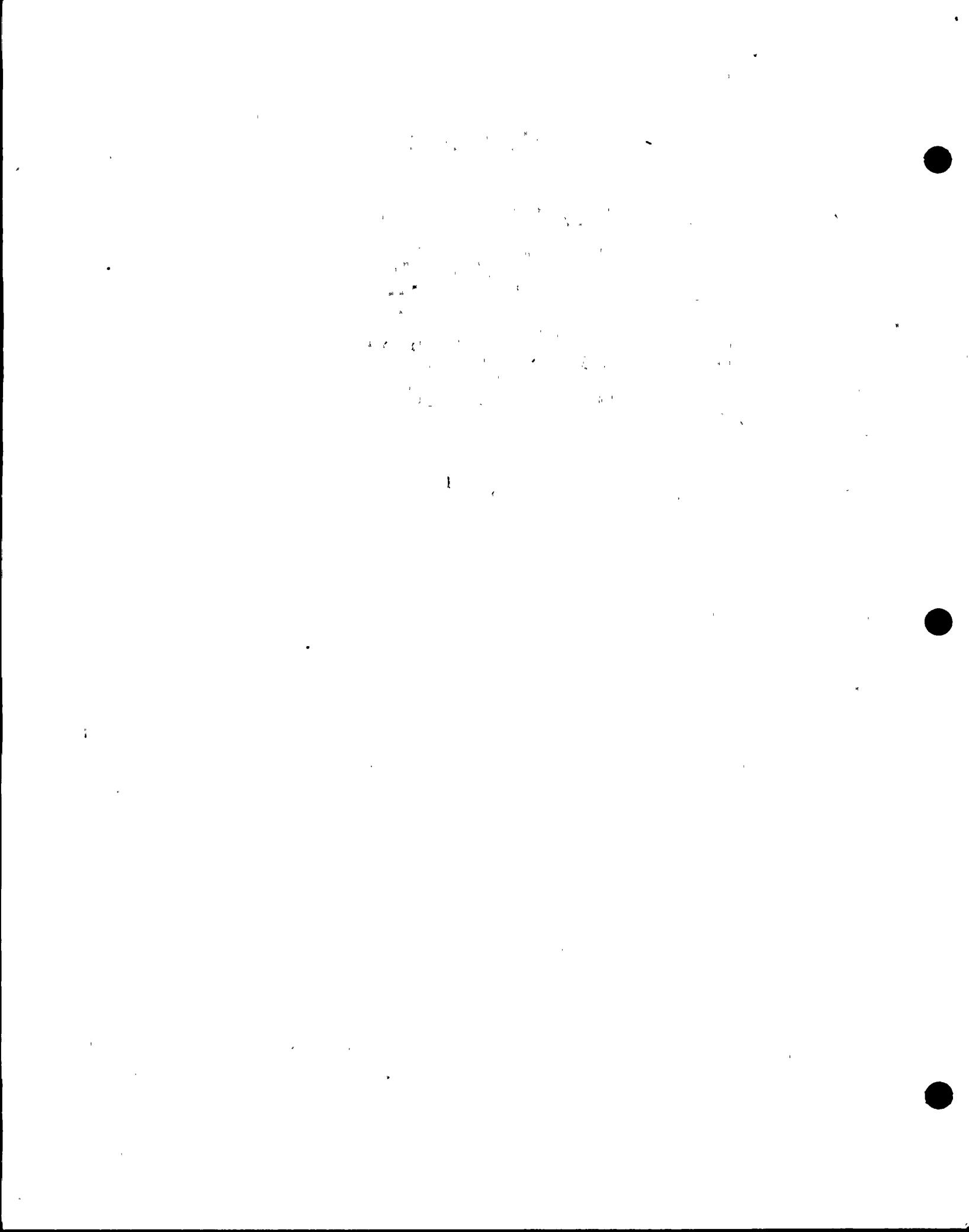
$$\begin{aligned} & \frac{\partial}{\partial t} \left(\frac{\partial u}{\partial x} \right) + \frac{\partial}{\partial x} \left(\frac{\partial u}{\partial t} \right) = - \frac{\partial}{\partial x} \left(\frac{\partial u}{\partial t} \right) - \frac{\partial}{\partial t} \left(\frac{\partial u}{\partial x} \right) \\ & \frac{\partial^2 u}{\partial x^2} - \frac{\partial^2 u}{\partial t^2} = - \frac{\partial^2 u}{\partial t^2} - \frac{\partial^2 u}{\partial x^2} \end{aligned}$$



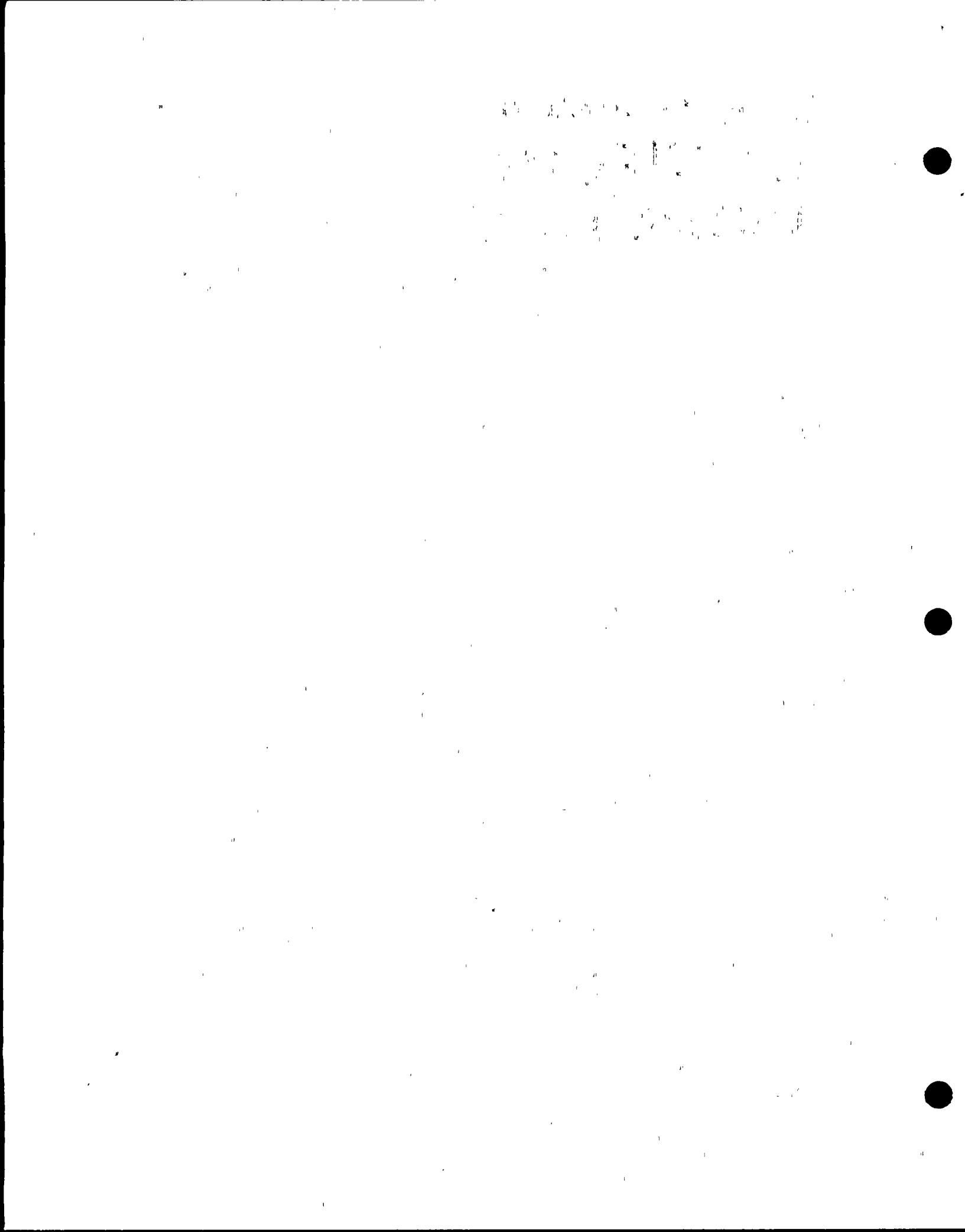
UNIT 4 S/G EC INSPECTION

<u>S/G</u>	<u>No. Tubes*</u>	<u>Freq. (KHz)</u>	<u>Remarks</u>
A	1000	400	Inlet
A	75	25	Inlet
A	1000	400	Outlet
A	60	25	Outlet
B	600	400	Inlet
B	1000	400	Outlet
C	180	400	Inlet
C	1000	400	Outlet

*Approximate No. of tubes tested.



APPENDIX I



Steady State AVT Limits

Condensate Chemistry Limits

Cation Conductivity, $\mu\text{mhos}/\text{cm}$ < 0.2

Feedwater Chemistry Limits

pH at 25° C 8.8 - 9.2

Fe, ppb <10 Hydrazine, ppb $[O_2] + 5$

Cu, ppb <5 Total Conductivity, $\mu\text{mhos}/\text{cm}$ < .4

Dissolved O_2 , ppb < 5

- 1) Feedwater pH is adjusted through the use of Ammonium Hydroxide.
- 2) Dissolved Oxygen is controlled through the use of hydrazine, mechanical vacuum deaeration and elimination of airleaks in the system.

Steam Generators

pH at 25°C 8.5 - 9.0

Cation Conductivity, $\mu\text{mhos}/\text{cm}$ <2.0

Na, ppm <0.1

Cl, ppm <0.15

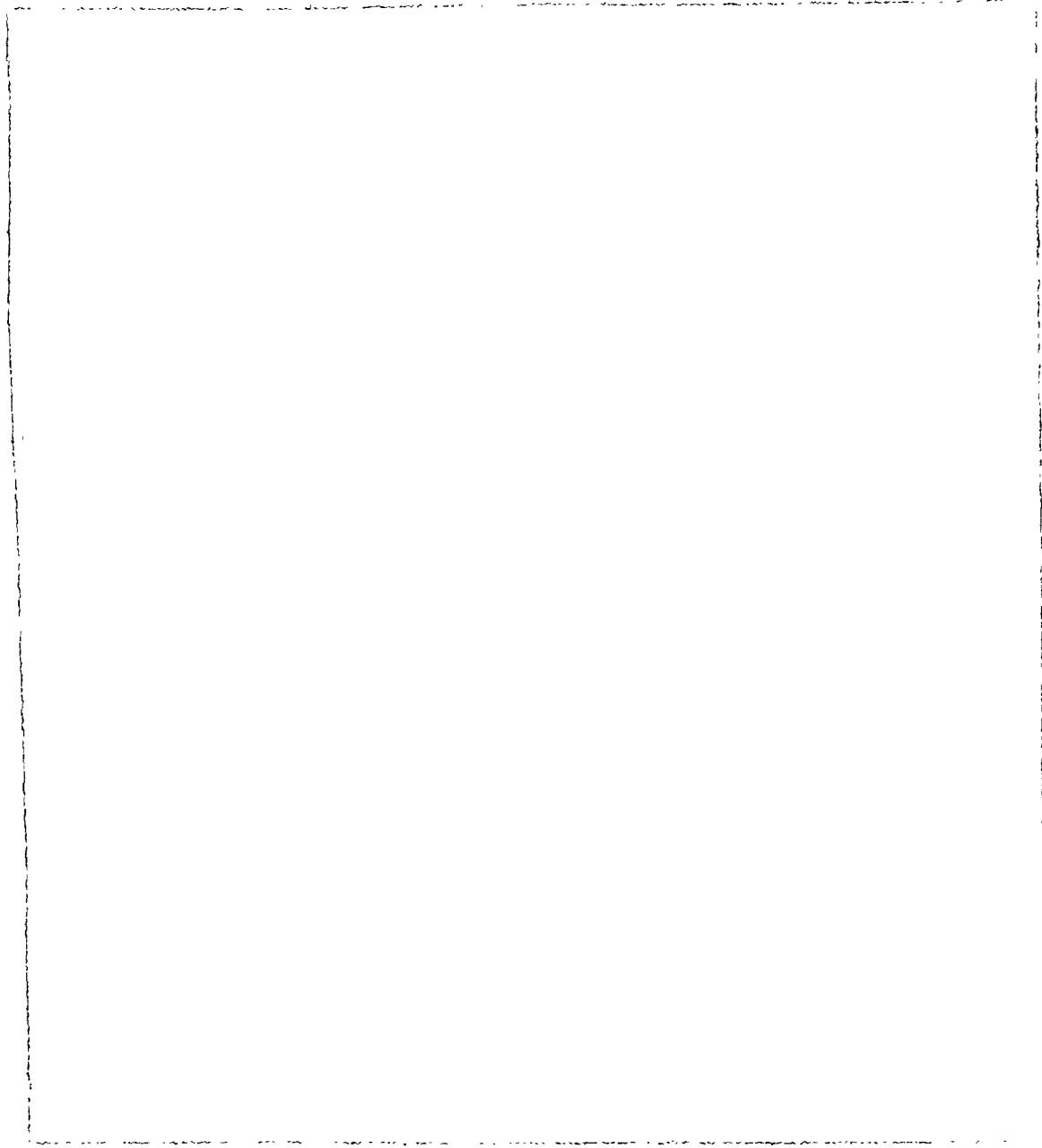
SiO_2 , ppm <1

Free Hydroxide, as ppm CaCO_3 0 + .15 - 0.0

Suspended Solids, ppm <1

Blowdown Rate, gpm/SG >15

- 1) A continuous blowdown of at least 15 gpm/SG should be maintained to blow out suspended solids.
- 2) A liquid release permit is required for blowdown whenever radioactivity is detected.
- 3) Chloride content is maintained <0.15 ppm by using Grade A makeup and high blowdown rates.
- 4) Silica is maintained <1 ppm by using Grade A makeup and high blowdown rates.

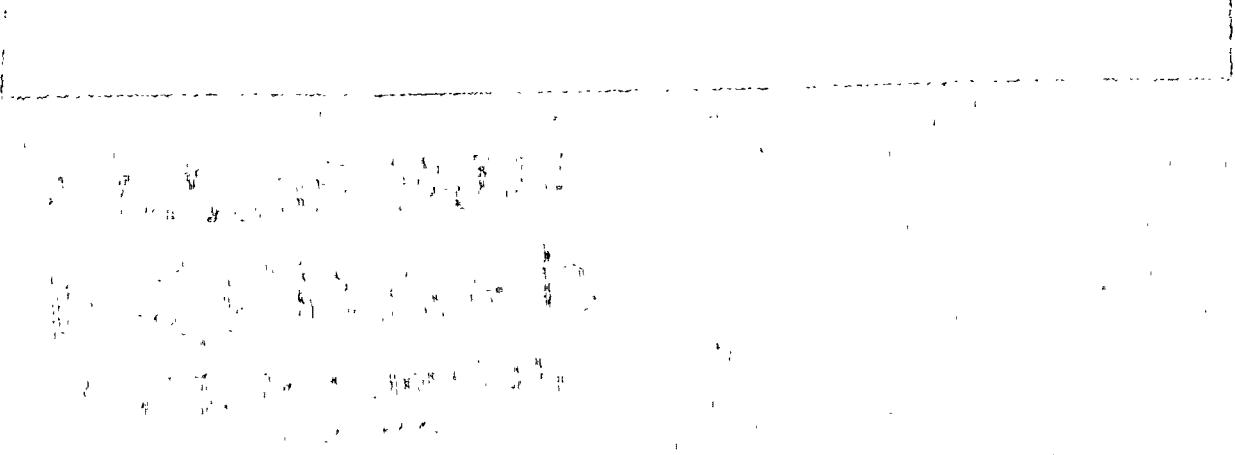


Transient AVT Limits

Limiting Conditions for Power Operation

	<u>Steam Generator</u>	<u>Condensate</u>	<u>Feedwater</u>
pH @ 25°C	8.0 - 9.2		8.8 - 9.2
Total Conductivity, $\mu\text{mhos}/\text{cm}$	120	1.5	4
Cation Conductivity, $\mu\text{mhos}/\text{cm}$	120	1.5	
Na, ppm	6		
Cl, ppm	10		
Dissolved O_2 , ppb			20
Hydrazine, ppm			<[O_2]
Free Hydroxide, as ppm CaCO_3	1.0		

NOTE: Operation beyond the normal specifications must be limited to 24 hours. Corrective action including shutdown if necessary is recommended within this period.



Chemistry Limits for PHOSPHATE Treatment

Condensate and Feedwater Chemistry

pH at 25 C 8.7 - 8.9
Dissolved Oxygen, ppb <5
Chloride, ppm <0.10
Residual Hydrazine, ppb 10 - 20

- 1) The dissolved oxygen is measured at the steam generator inlet and controlled through the use of hydrazine.
- 2) The chloride content of condensate samples will be much higher if a condenser leak develops. The limits above are applicable when condenser leakage is not present.

Steam Generators

pH at 25 C 9.6 - 9.88
Phosphate, ppm 25 - 35
Chloride, ppm <1
Total Solids, ppm <50
Suspended Solids, ppm <5
Silica, ppm <.5

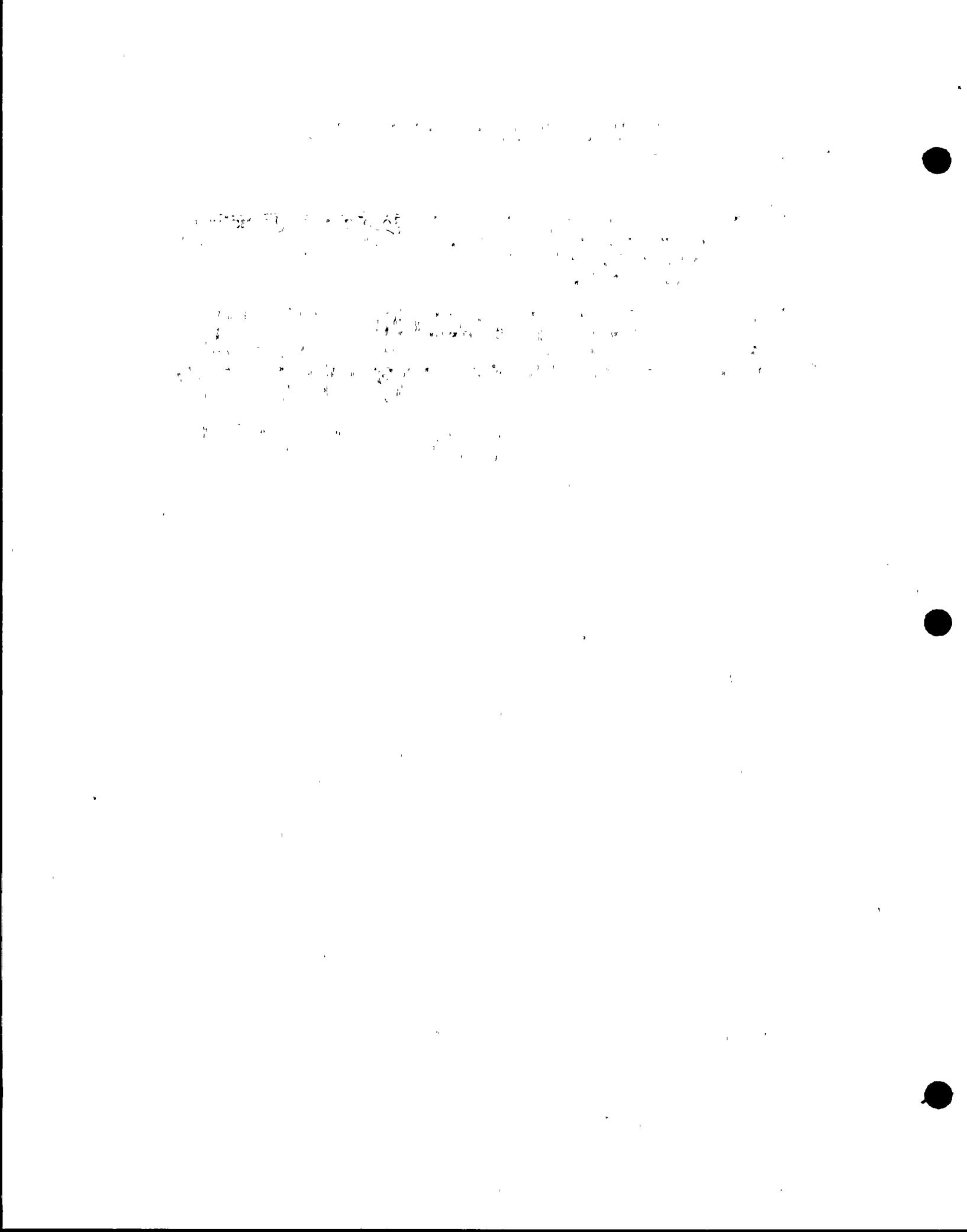
- 1) Liquid release permit is required for blowdown whenever radioactivity is present.
- 2) pH is adjusted through the use of phosphates and/or blowdown.
- 3) Phosphate concentration is controlled through blowdown and/or the addition of sodium phosphate compounds. The sodium to phosphate molar ratio is maintained between 2.3 and 2.6.

$$\sum_{k=0}^{\infty} \frac{1}{k!} \frac{(-\lambda)^k}{k+1} = \frac{e^{-\lambda}}{1 - \lambda e^{-\lambda}}$$

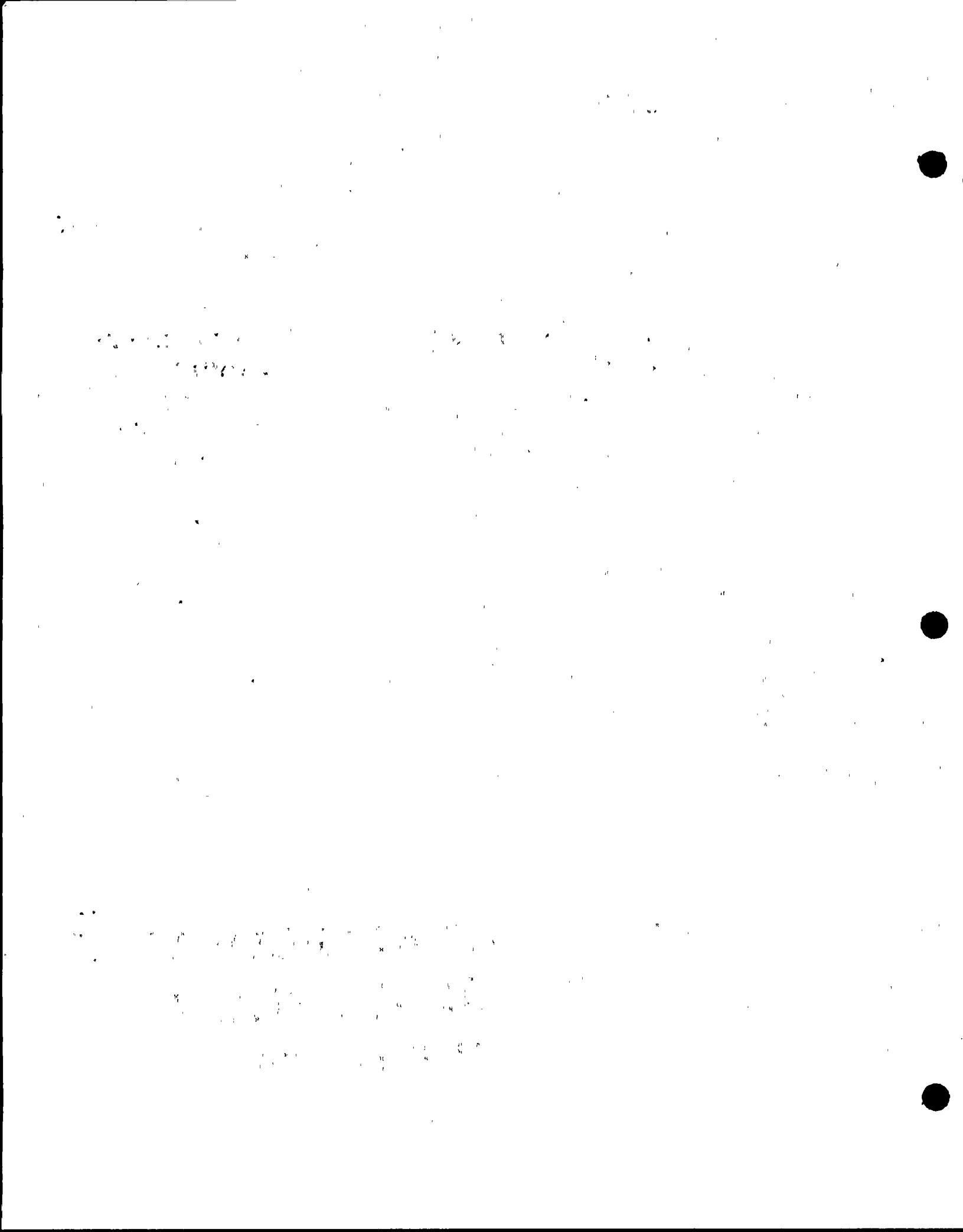
10

PHOSPHATE Treatment Transient Conditions

- 1) Chloride content is maintained at the required level by using makeup water with zero chlorides. Chloride levels will increase whenever a condenser tube leak develops but shall be reduced as soon as possible,
- 2) In case of major primary to secondary leakage and/or major condenser in-leakage, the TDS upper limit may be amended to 600 ppm for a short period of time. Every effort shall be made to reduce the TDS to below 50 ppm as soon as practicable,



APPENDIX J



OPERATING PLANTS TRANSITION FROM PHOSPHATE TO AVT CHEMISTRY

General

Sludge deposits on the secondary side of the steam generator tube sheet consist of normal secondary side corrosion products like magnetite, precipitated solids such as sodium phosphate of varying ratios, and reaction products formed among these and other species entering the steam generator. The compatibility of this environment with the steam generator tubes is now regarded as uncertain, and thus an important phase in the transition from the phosphate chemistry control to AVT is the elimination or "neutralization" of the sludge bed. It is known that some of the compounds formed by iron and phosphate solutions hydrolyze at low temperatures, and that the "hideout" of sodium phosphate salts is reversed as heat flux or power level are reduced in the steam generator; further the retrograde solubility displayed by phosphate salts suggests further re-solution of precipitated phosphates may be expected upon cooldown of the RCS. This is the background against which the steps outlined for the transition to AVT should be viewed.

Summary of Operations

1. Pre-Shutdown

To initiate the "neutralization" of the sludge blanket, the injection of phosphates into the steam generator is terminated approximately one week before the plant is to be shutdown. This step results in a rapid depletion of the drum liquid phosphate inventory and initiates a leaching process in the sludge; in order to maximize the benefits derived from the leaching action, blowdown is maximized during this period.

NOTE: During this period the secondary side chemistry control approximates AVT; as a result renewed attention should be given to condenser maintenance. Except for the residual phosphate, the AVT chemistry specifications should be the guide for secondary system operation.

1941
1950
5%

2. Shutdown Sequence

As the plant is unloaded in preparation for the transition shutdown, removal of phosphates returned to the bulk liquid upon load reduction is advisable. Therefore programmed holds at 50% and 25% power are scheduled to flush out such phosphates as appear during the load reduction phase. Of course, during this period maximum blowdown will improve the effectiveness of the flushing action.

Blowdown should be continued as long as practical through the cooldown process to facilitate removal of the phosphate and sodium.

3. Shutdown Operations

A. Eddy-Current Examination: Performance of eddy-current (EC) testing is intended to determine the condition of the steam generator tubes from a maintenance standpoint and to provide a base-line against which the subsequent operation with AVT may be evaluated. Additionally, the sludge burden of the steam generators is also determined prior to sludge lancing operations.

All steam generators should be tested, both hot leg and cold leg sides, for tube-wall penetration; at least one unit should be examined for sludge signals.

B. Sludge Lancing: After the sludge height has been measured in at least one steam generator, all units should be lanced to break-up, wash and remove as much of the sludge deposit as possible. It is recognized that 100% removal is generally not expected, but the cleansing action of the lancing process together with post-startup blowdown are considered to accomplish effectively a "neutralization" of the remaining deposits.

C. Refill of Steam Generators: Upon completion of the sludge lancing the steam generators should be brought to Cold Wet Layup conditions by filling them with oxygen-free (<0.1 ppm) condensate makeup quality water treated with hydrazine and ammonia. Nominal wet layup conditions require:

8/1 9:00 A.M.

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pH 10 - 10.5
N₂H₄ 75 - 150 ppm
NH₃ As required to achieve pH

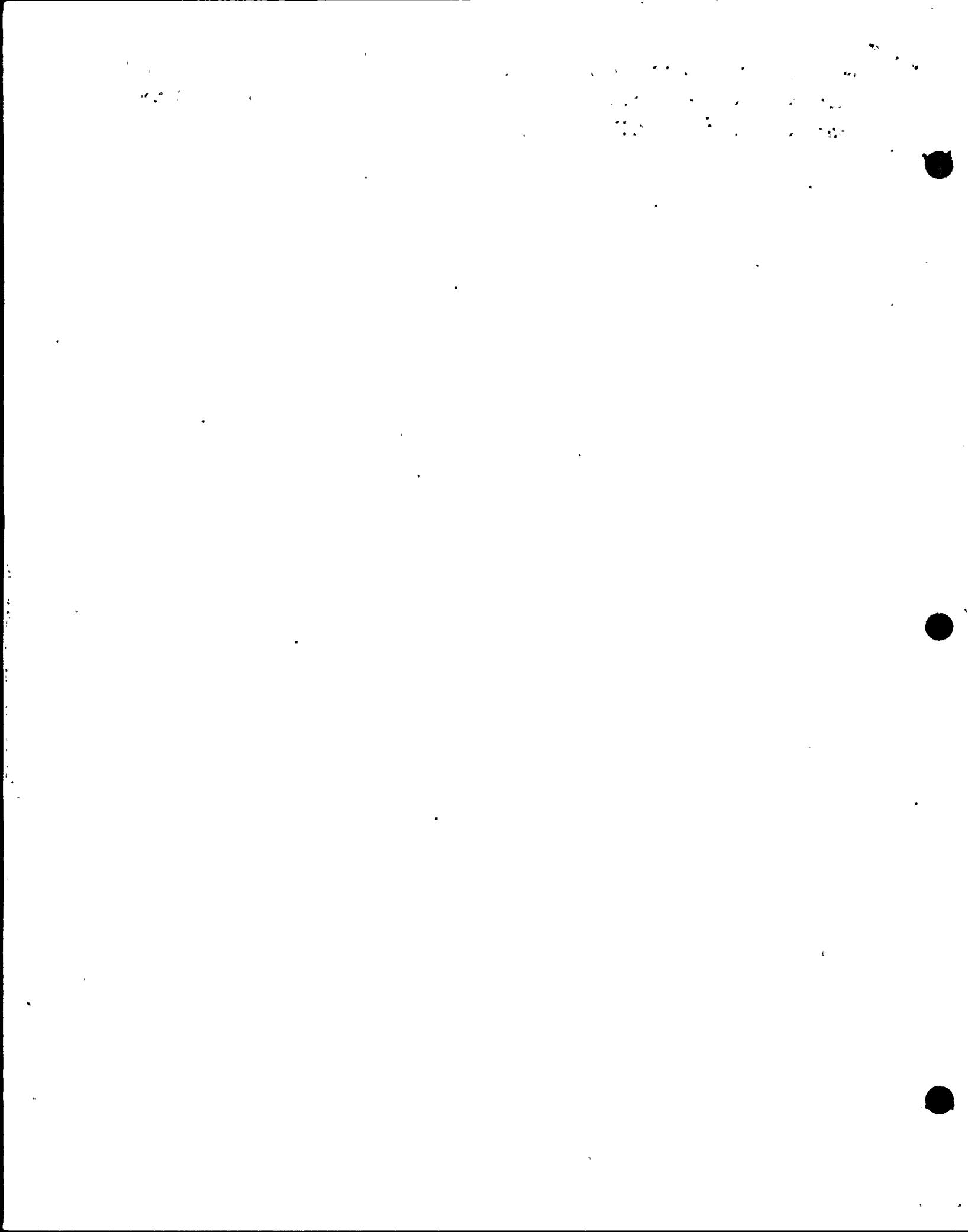
- D. Condenser Maintenance: Maximum advantage should be taken during the shutdown to eliminate leakage from the condenser tubes. Condenser leakage contaminants are regarded as the principle threat to steam generator tube integrity under the AVT chemistry program.

4. Startup Sequence

- A. Heatup and Hot Standby/Shutdown: Since the steam generator will pass through the temperature range of maximum solubility for the residual phosphate salts, it is important that blowdown be initiated as soon as possible and maintained at maximum rates. Hold the plant at zero load until the steam generator chemistry conditions have stabilized, signified by cation conductivity, Na and PO₄ concentrations.
- B. Plant Loading: Take the plant up in load in programmed steps, holding at 25% and 50% power until chemical stability has been achieved in the steam generator blowdown as indicated by cation conductivity, Na and PO₄ concentrations. For this purpose and to reduce the expected high solids levels, blowdown rates should be maintained as high as practical within plant limitations.
- C. Full Power Operation: After the plant has achieved normal full power operation at the specified AVT conditions, the blowdown rate may be reduced to 15 gpm/steam generator.

Summary

The injection of phosphates into the steam generator is terminated in preparation for the AVT transition phosphate. Before and during the shutdown sequence blowdown is maximized to optimize the leaching of the sludge deposits. Eddy-current testing is performed to determine the condition of the steam generator tubes and the amount of sludge present. Sludge lancing is performed to break up, wash and remove the sludge deposits and to re-dissolve the residual phosphate salts. The steam generators are returned to cold wet layup conditions, and the condensers are checked to prevent excessive in-leakage during the transition.



The unit is brought back into operation in a deliberate fashion to minimize retention of phosphate compounds; maximum blowdown is maintained until the plant is operating normally with AVT control.

