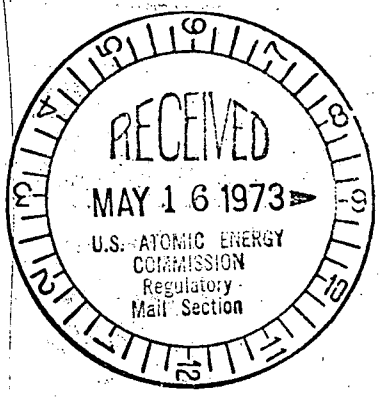
50-261

CP&L

Carolina Power & Light Company

May 11, 1973



Mr. Robert J. Schemel, Chief
Operating Reactors Branch No. 1
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Schemel:

H. B. ROBINSON UNIT NO. 2
LICENSE DPR-23
HYDROSTATIC TESTING OF STEAM GENERATORS

In your letter of April 6, 1973, you requested that Carolina Power & Light Company supply additional information concerning results of eddy current testing that has been completed during the present refueling outage of the H. B. Robinson Unit No. 2 plant. By copy of this letter, we are supplying the requested information. Furthermore, based upon the highly satisfactory results obtained, we ask that you act upon our request of January 27, 1973, to rescind the requirement for a monthly hydrostatic testing program.

Nominally, 100 percent of the tubes on the hot leg side of all three steam generators were inspected at a test frequency of 400 kilohertz (Khz) up through the first tube support. Some 50 tubes in each steam generator were not tested. These were either in locations around the periphery of the tubesheet which could not be tested because of eddy current test fixture setup limitations or were in locations used as reference locations to anchor the test fixture. The locations of these untested tubes are shown in Figures 1, 2, and 3 for steam generators A, B, and C respectively. Due to the excellent results obtained on all other tubes, it was decided that additional man-rem exposure which would have resulted from hand probing these few tubes was not justified. The test results are summarized below.

Steam Generator A

Eddy current indications were found in only two (2) tubes in locations Row 27, Column 52 and Row 28, Column 52.

Tube 27-52 exhibited an indication of 75% wall penetration occurring at a height of approximately two (2) inches above the tubesheet on the inlet side and having a length less than one-half (1/2) inch. Subsequent review

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of the eddy current tapes from the previous inspection which was conducted in May, 1972, revealed that this indication was clearly present in May, 1972, and had not been noted by the on-site evaluator at that time. A comparison of the signal recorded in May, 1972, with the signal obtained during this test program showed that the two signals were essentially identical. Therefore, the conclusion can be drawn that no further degradation of tube 27-52 has occurred during operation since June, 1972.

We wish to point out that precautions were taken to ensure recording of all eddy current indications during the most recent testing by requiring an on-site review of all recorded data by a qualified third party inspector.

Tube 28-52 contained an indication of 92 percent wall penetration also occurring at approximately two (2) inches above the tubesheet and also less than one-half (1/2) inch in length. Since this tube was not tested in May, 1972, no definite conclusion can be drawn as to whether this indication existed at that time. However, based upon the fact that the indication in the adjacent tube, 27-52, remained at 75 percent since May, 1972, and since no other eddy current indications were found in steam generator A, it can be reasonably assumed that this 92 percent indication was present in 1972 and has not progressed.

Other than the two (2) indications reported above, there were no other eddy current indications of wall penetration in steam generator A. Tubes 27-52 and 28-52 were both plugged upon completion of the eddy current test program.

Steam Generator B

There were no eddy current indications of tube wall penetration recorded in steam generator B.

Steam Generator C

There were no eddy current indications of tube wall penetration recorded in steam generator C.

Based upon the above results, Carolina Power & Light Company is confident that all tubes having detectable wall penetration have been found and plugged. Furthermore, the results show that the secondary water chemistry program which was adopted in June, 1972, has been successful in preventing degradation of the steam generator tubes, and we intend to

continue this chemistry program in the future.

Therefore, Carolina Power & Light Company is of the opinion that the requirement for a monthly hydrostatic test program is not necessary and that action by the Atomic Energy Commission to remove this requirement will not result in any increased hazard to the health and safety of the public.

In your letter you also requested the submittal of WCAP-7452, which was referenced in NSD-E-NLB-672 as containing the water chemistry specifications for control of corrosion products by addition of phosphate, and which was used in the Robinson Plant prior to May, 1972. Since this document covers chemistry specifications for all plant systems, and does not include the current steam system water chemistry procedures now being used, we feel it is inappropriate to submit this report. However, to further your understanding of the use of phosphates to control steam generator corrosion, we submit instead five (5) copies of a report entitled, "Steam Side Water Chemistry Control Specifications," which discusses all aspects of secondary water chemistry in detail. We hope that this will suffice.

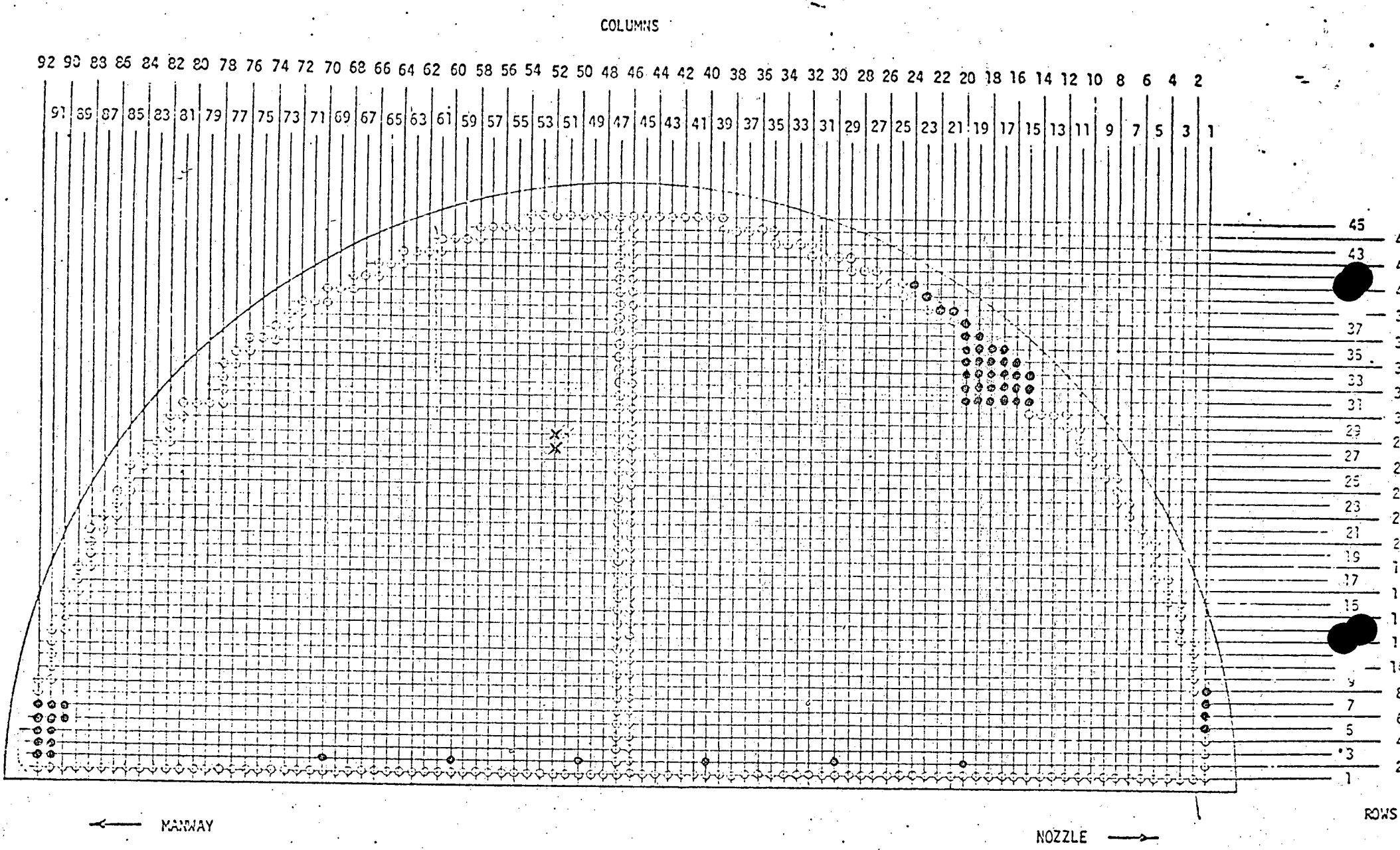
Very truly yours,

E. E. Utley
Vice-President
Bulk Power Supply

DBW/za

Enclosures

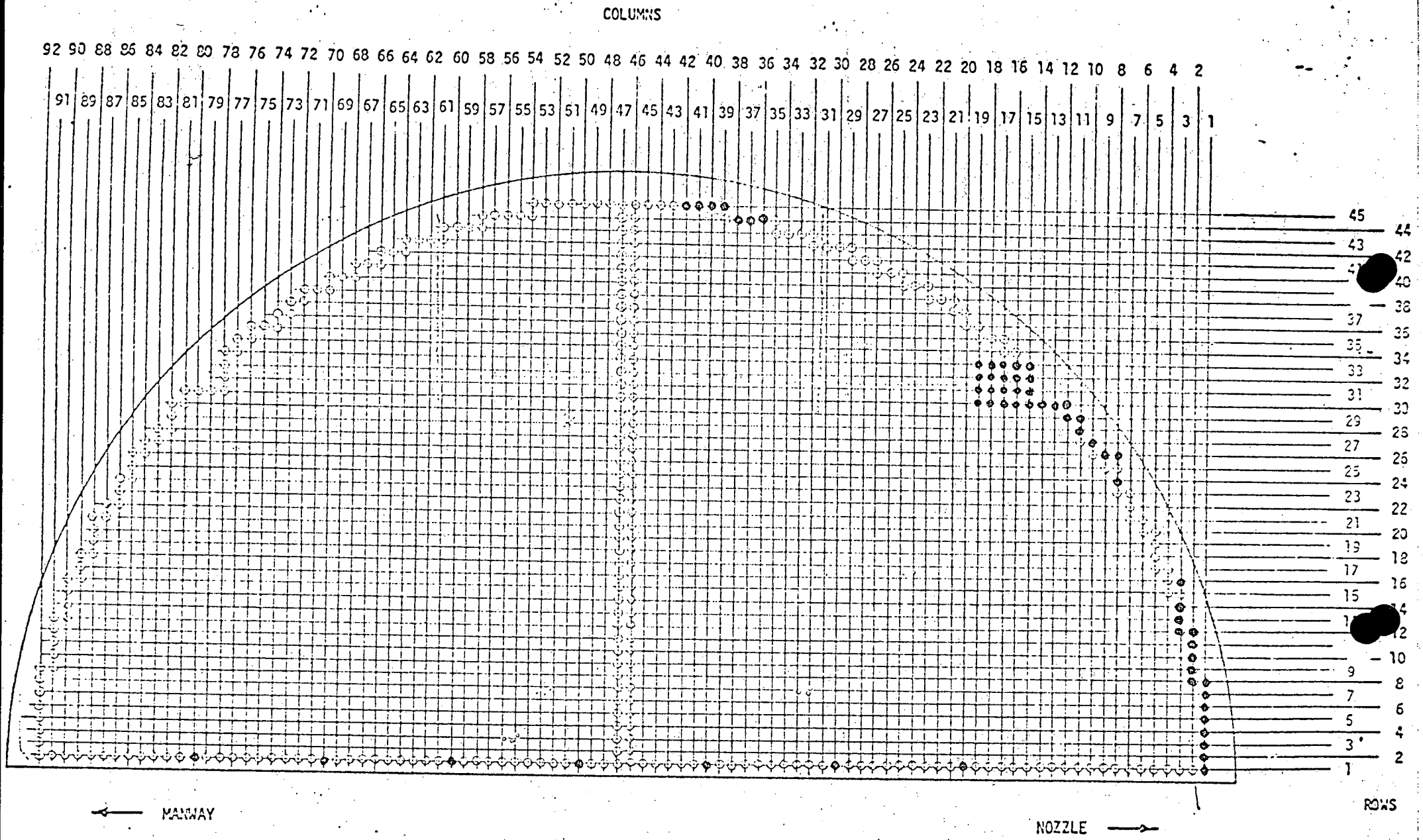
cc: Mr. C. D. Barham
Mr. B. J. Furr
Mr. N. B. Bessac
Mr. D. V. Menscer



CPL STEAM GENERATOR "A"

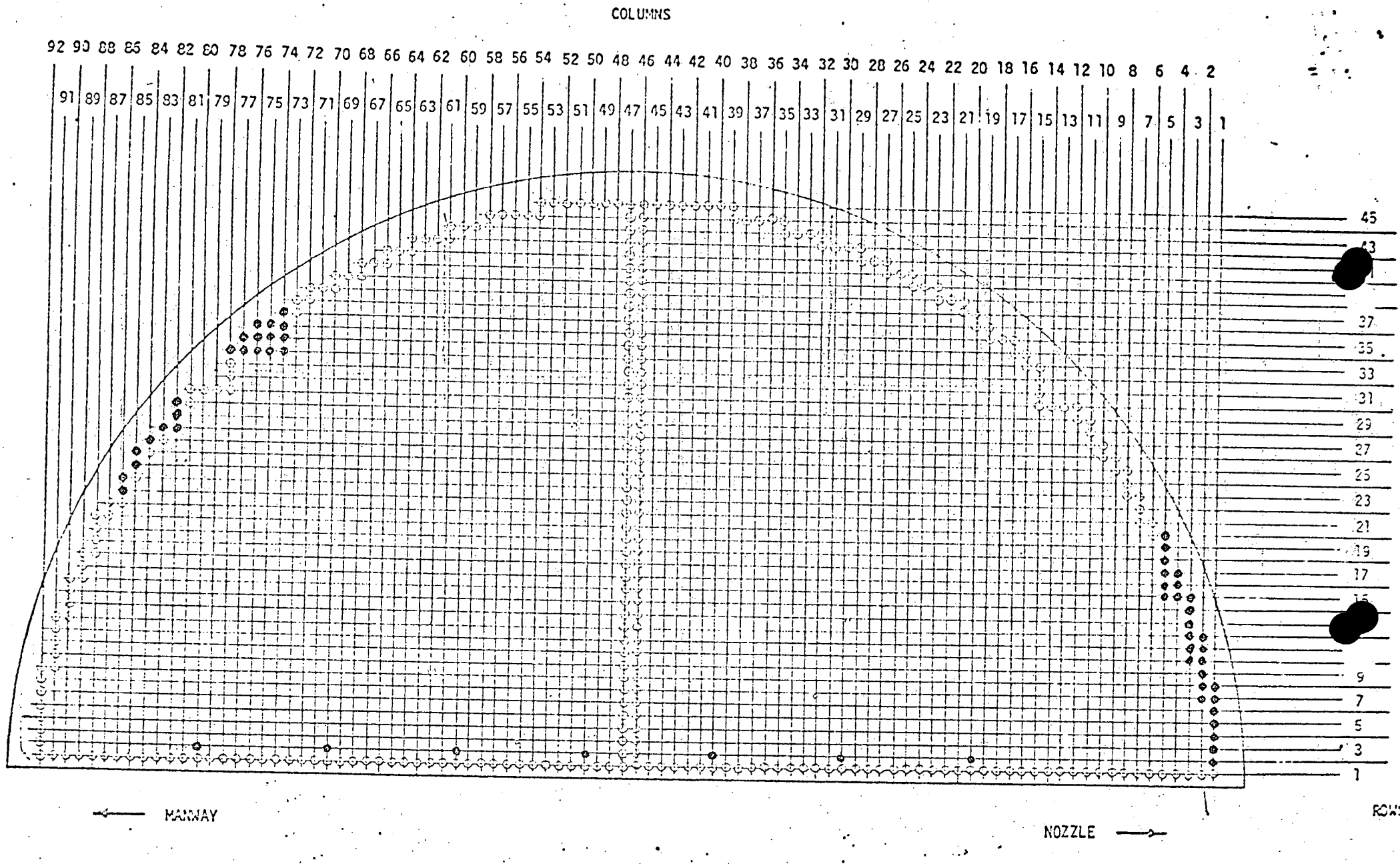
X – tubes plugged during present outage

Figure 1



CPL STEAM GENERATOR "B"

Figure 2



CPL STEAM GENERATOR "C"

Figure 3

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 3193

FILE

FROM:	DATE OF DOC:	DATE REC'D	LTR	MEMO	RPT	OTHER
Carolina Power & Light Company Raleigh, North Carolina 27602 E. E. Utley	5-11-73	5-16-73	x			

TO:	ORIG	CC	OTHER	
R. J. Schemel	3 signed	37		SENT AEC PDR X SENT LOCAL PDR X

CLASS: (U) PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
		40	50-261

DESCRIPTION:
Ltr re our 4-6-73 ltr..re request for addl info regarding results of eddy current testing that has been completed during the present refueling outrage...trans the following:

DIST: Per R. Woodruff

PLANT NAMES: H.B.Robinson, Unit # 2

ENCLOSURES:
REPORT: "Steam Side Water Chemistry Control Specifications", dtd 10-15-72.

ACKNOWLEDGED DO NOT REMOVE

NOTE: *DENOTES DISTRIBUTION WITH REPORT.

(5 cys rec'd) See jacket

FOR ACTION/INFORMATION 5-16-73 fod

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MORRIS
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HENDRIE
SCHROEDER
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ENVIRO
MULLER
DICKER
KNIGHTON
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REGAN
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BROWN E
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BRAITMAN
SALTZMAN

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✓1-DTIE(ABERNATHY)
✓1-NSIC(BUCHANAN)
1-ASLB-YORE/SAYRE
WOODWARD/H ST.
✓16-CYS ACRS ~~HOLDING~~ Sent 5-16-73 to W/O Rpt. S. Teets for Dist.

(1)(2)(9)-NATIONAL LAB'S
1-R. CARROLL-C, GT-B227
1- R. CATLIN,E-256-GT
1- CONSULTANT'S NEWMARK/BLUME/AGABIAN
1- GERLAD ULRIKSON....ORNL

1-PDR-SAN/LA/NY
1- GERALD LELLOUCHE
BROOKHAVEN NAT. LAB
1-AGMED(WALTER KOESTER, RM C-427, GT)
1- RD...MULLER...F-309GT

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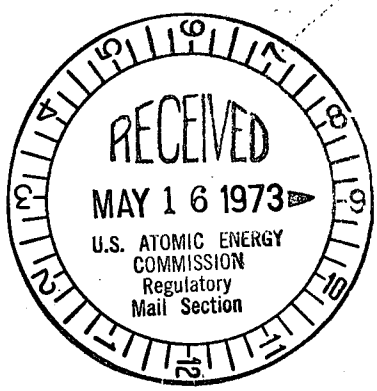
CP&L

Carolina Power & Light Company

May 11, 1973



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Other than the two (2) indications reported above, there were no other eddy current indications of wall penetration in steam generator A. Tubes 27-52 and 28-52 were both plugged upon completion of the eddy current test program.

Steam Generator B

There were no eddy current indications of tube wall penetration recorded in steam generator B.

Steam Generator C

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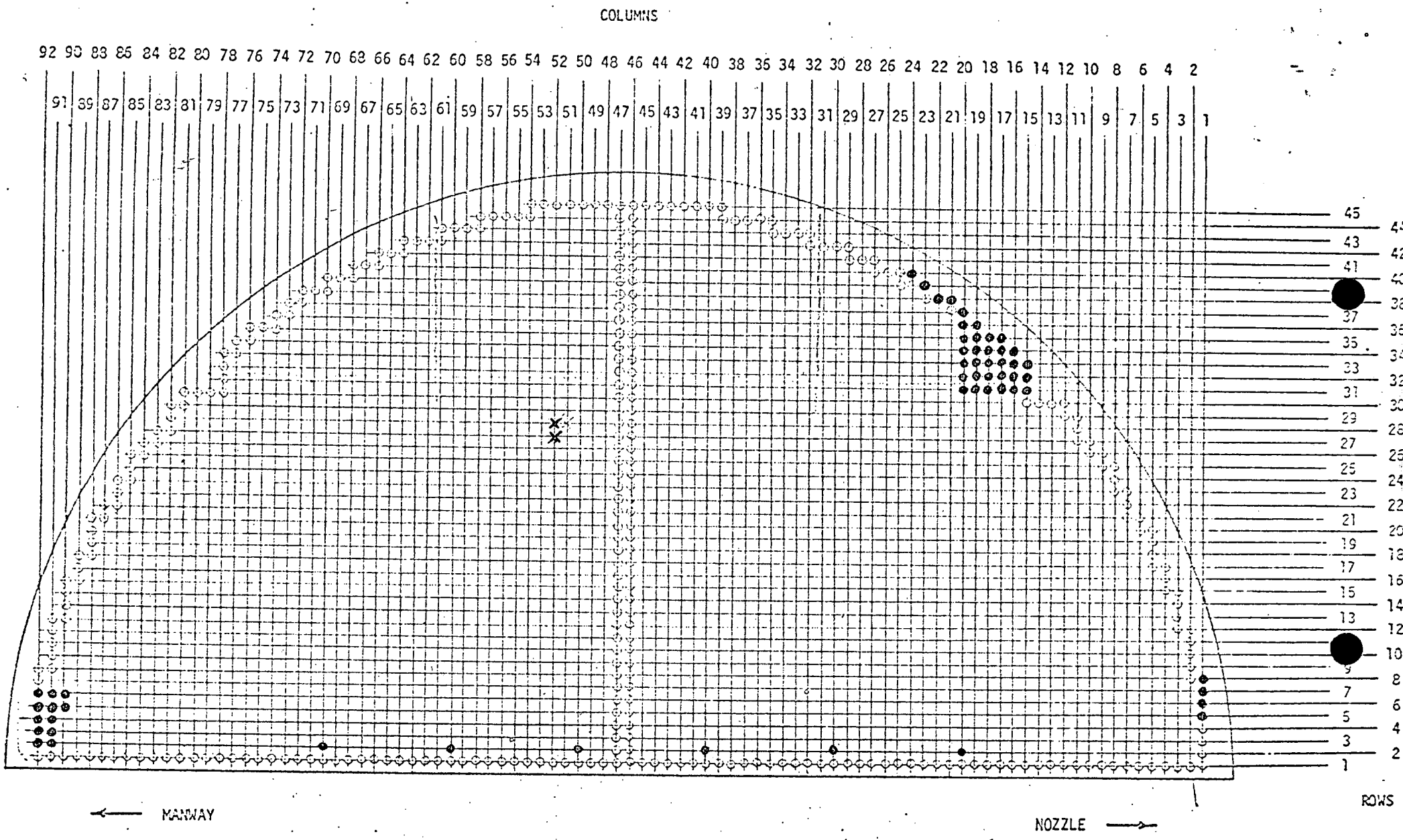
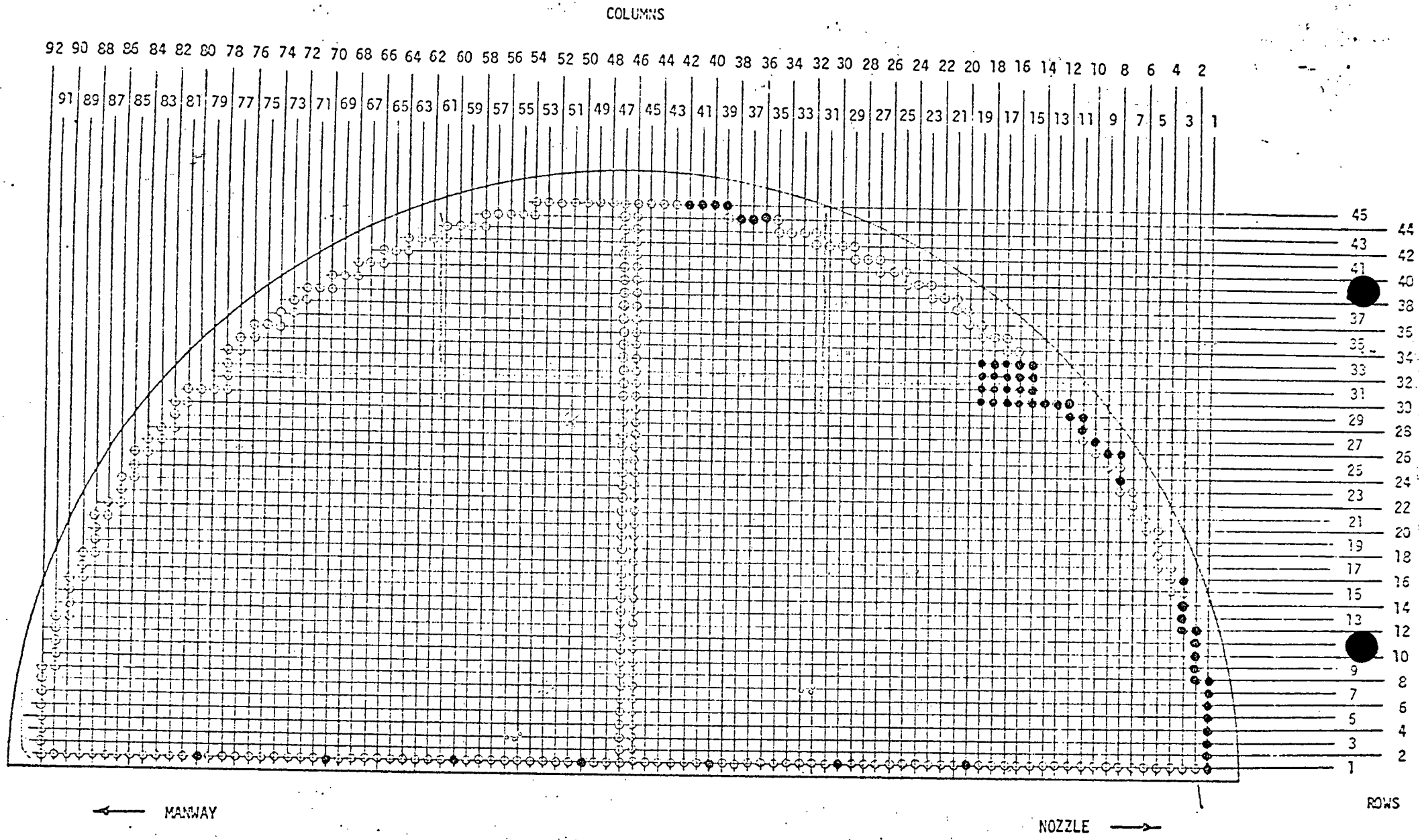


CPL STEAM GENERATOR "A"

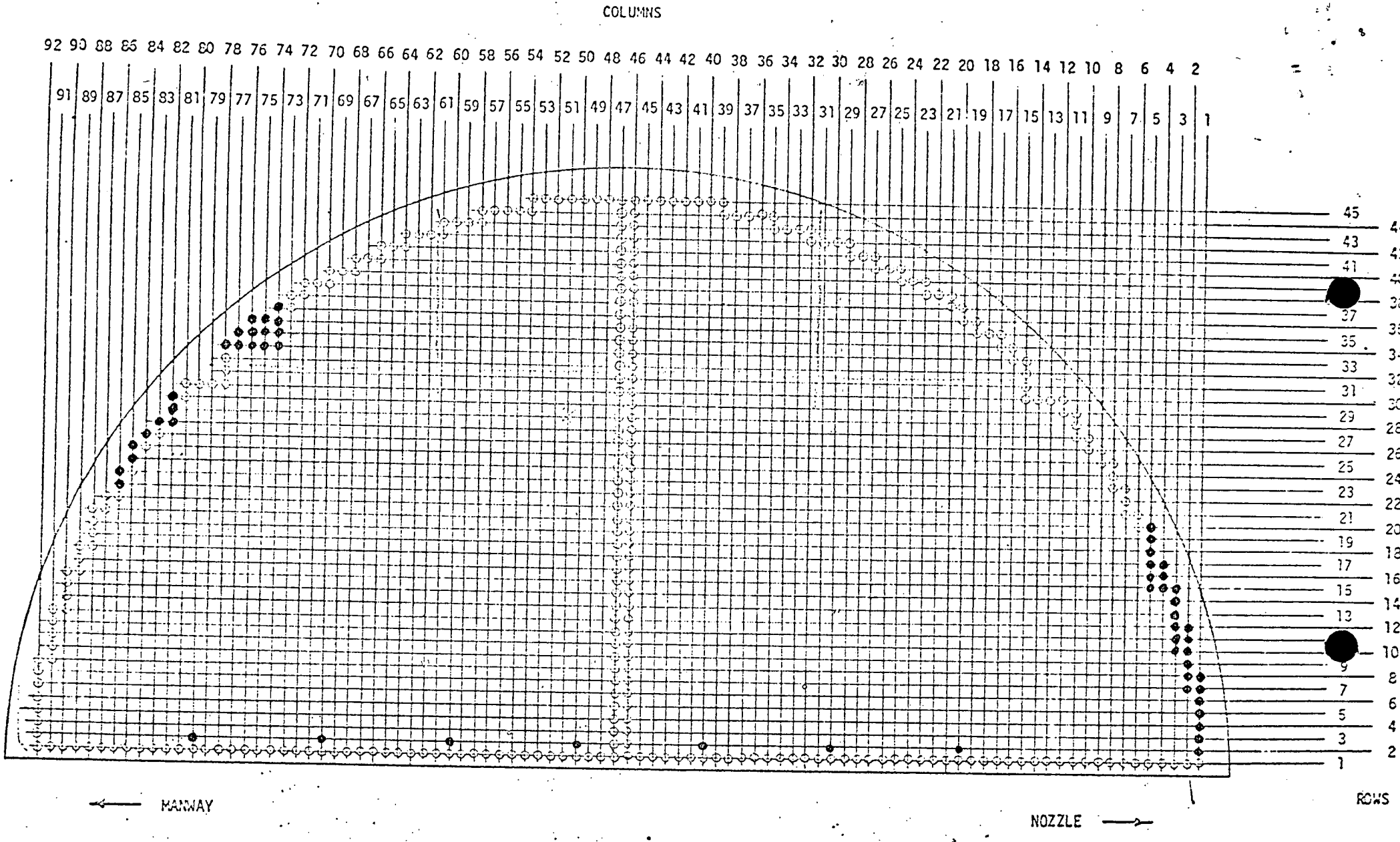
× – tubes plugged during present outage

Figure 1



CPL STEAM GENERATOR "B"

Figure 2



CPL ,STEAM GENERATOR "<"

Figure 3